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SOCIAL PLANS AND SOCIAL EPISODES: THE DEVELOPMENT OF COLLABORATION IN ROLE PLAY

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SOCIAL PLANS AND SOCIAL EPISODES:

THE DEVELOPMENT OF COLLABORATION IN ROLE PLAY

by

MARYL GEARHART

A dissertation submitted to the Ph. D. Program in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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ABSTRACT

SOCIAL PLANS AND SOCIAL EPISODES:
THE DEVELOPMENT OF COLLABORATION IN ROLE PLAY

by

MARYL GEARHART

Advisor: Dr. Joseph Glick

A developmental model of the social-cognitive and communicative abilities that characterize role play between peers was constructed and tested. The domains of competence analyzed included the ways peers negotiate agreements, frame pretense, and motivate character portrayals. A complementary developmental analysis of the 'script knowledge' underlying role play interactions was produced.

The variables examined were (1) experience with a particular partner in the play context and (2) age. Girls in groups of same-age, familiar playmates (six 3 1/2-year-olds, four 5 1/2-year-olds, four 6 1/4-year-olds) were paired within age group. Pairs were videotaped playing together in a novel play context (a miniature grocery store) for 15 minutes on 2 successive days. On a third day, girls were re-partnered within age group.

Analyses of children's negotiations indicated that children worked harder at communicating with partners in sessions 1 and 3, but they almost never negotiated truly collaborative agreements on plans for play or on symbolic pretense transformations. Analyses of children's portrayals revealed that much of the 3-year-olds' role play and virtually all of the older subjects' role play was sequentially and interactively organized and thematically consistent. All children

portrayed the customer's motives in occasional formulations of "want" or "need" for food items as well as in complete episodes (customer selects foods which clerk bags). However, subjects appeared to understand little of the clerk's motives, and, in the younger subjects' role play, the motivations of the customer were also sometimes not apparent in their ritual repetitions of role play sequences and their greater frequency of incomplete store episodes.

The well-structured play context appeared to support subjects' coordination of role-played behaviors with little need for representation and coordination of either partners' or characters' perspectives. Much of subjects' role play could be explained by attributing to them a simple script knowledge of sequences of store events and a limited recognition that a peer may not share plans for portrayal. These competences enable peers to construct together interactive contexts for learning about the rational bases for interactions.

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examples. He understood what I was trying to accomplish at points when I no longer could. I thank him for his intelligence, his skill, and his endurance.

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The subjects and their mothers were extraordinarily patient with the annoyances of coordinating schedules and making repeated visits as a group to the laboratory. Despite repeated reschedulings and trips to the lab in the bitter cold, the children were enthusiastic, delighted to participate, and delightful to watch. I thank them all.

I am grateful to George Miller and to Michael Cole, who permitted me to use their laboratory facilities at Rockefeller University during data collection.

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CHAPTER I

OVERVIEW

Role play interactions are important data for the study of children's developing social competences. In role play, children reveal to us their competence at coordinating interactions and, in their portrayals of persons, their interpretations of others' interactions.

Much of the literature on peer role play is addressed to controversies regarding young children's "egocentrism" in their interactions with peers. Classic reports by Piaget (1926/1955) and by Parten (1932) indicated that young children were not interested in their peers or able to interact competently with them. Piaget explained children's apparent disinterest and incompetence in interactions in terms of "egocentrism" -- a functional tendency to interpret others' experiences in terms of the self's. He argued that true communication -- "collaboration in abstract thought" and "genuine argument" -- requires the development of the understanding that others have thoughts, feelings and intentions different from the self's, the capacity to represent others' mental states, and the logical ability to coordinate different perspectives in the service of a joint goal, and he provided both observational and interview evidence that these developments do not occur until 7 or 8 years of age. However, recent studies do not support certain aspects of Piaget's arguments and his data. There is now considerable evidence that preschool children

interact with their peers with great interest. There is also evidence that the preschool child is more competent in interactions than Piaget believed, but the nature of early interactive competences and the course of their development are matters of controversy. What are the young child's capacities for certain forms of interaction and for the abilities presumed to underlie such interactions, and how do these develop over time?

Virtually all middle-class preschoolers engage in role play and do so approximately 1 - 25% of their free play time (Fein, 1981). Role play data have been offered as evidence of preschool children's non-egocentric social competences. The arguments are that role portrayals reveal the young child's knowledge of persons other than him- or herself, and the successful co-production with a peer of coordinated portrayals reveals abilities to 'decenter' from his or her own fantasy plan and coordinate it with the fantasy of another. However, there is presently no detailed evidence of what children do in role play. Such evidence is needed to inform the complex debates over the Piagetian view of children's developing social knowledge and interactive competence.

The study reported here is an investigation of children's role play with peers which addresses the question of young children's developing capacities for cooperation, for true "collaboration in abstract thought" as Piaget originally defined it. The purpose of the project was to construct a model of peer role play and a set of methods for the developmental analysis of role play interactions. The usefulness of the analytic approach that was constructed was examined for a small sample of children videotaped playing 'grocery store' in

pairs at three ages (3, 5, and 6 years) and in three communicative contexts representing variations in familiarity of play and of role play partner, contexts which require adjustments in collaborative work. Reported here are the model developed, the methods developed, quantitative results, examinations of illustrative transcript excerpts, and discussions of methodological issues as all of these inform the usefulness of the analytic approach proposed here.

The literature which serves as background to the research is reviewed in Chapters II and III. Chapter II is a summary of developmental studies of peer interaction, and Chapter III is a more focused examination of developmental studies concerned with interactive role play. Chapter IV contains a presentation of the role play model and a tentative model of the development of role play. Chapter V is a presentation of the purpose of the project and the research design. Chapter VI is a description of the methods used. Chapters VII, VIII, IX, and X are reports of results, and Chapter XI contains summary, discussion, and conclusions.

CHAPTER II

THE DEVELOPMENT OF COMPETENCE IN PEER INTERACTIONS

In his early work on language and thought, Piaget (1926/1955) argued that young children are "egocentric" in their communications with others.

> [A] child does not bother to know to whom he is speaking nor whether he is being listened to. He talks either for himself or for the pleasure of associating anyone who happens to be there with the activity of the moment. This talk is egocentric ... because he does not attempt to place himself at the point of view of his hearer .... [H]e has the illusion ... of being heard and understood. He feels no desire to influence his hearer nor to tell him anything. (p. 32)

Piaget reported that approximately 44 - 47% of the utterances of children as old as 6 and 1/2, observed in a school setting, could be characterized as egocentric: repetitions of others' utterances ("echolalia ... a remnant of baby prattle"), monologues ("thinking aloud"), and collective monologues (where "an outsider ... is associated with the action or thought of the moment but is expected neither to attend nor to understand"). Piaget attributed such speech to young children's inabilities both to represent others' mental states as different from the self's and to reason by deduction -- in short, to their inabilities to represent and coordinate distinct viewpoints. He argued that eventually children are able to contribute to genuinely "socialized exchanges":

> Here the child really exchanges his thoughts with others, either by telling his hearer something that will interest him and influence his actions, or by an actual interchange of ideas by argument or even by collaboration in pursuit

of a common aim. (p. 33)

Recent studies have provided data which are inconsistent with Piaget's data and his arguments. Even infants have been shown to initiate social engagements with their peers (Mueller & Vandell, 1977), and there have been consistent findings of fairly high levels of adapted speech for children considerably younger than those Piaget observed. Mueller (1972) reported, from observations of dyads of preschool children in a laboratory playroom, that 62% of the utterances of children 3 1/2 to 5 1/2 received a clearly contingent response, and Garvey and Hogan (1973) reported that 59% of the speech of pairs of children 3 1/2 to 5 was responsive and thematically contingent. As a result, young children have been characterized as "sociocentric" (Garvey & Hogan, 1973) rather than egocentric. The meaning of the term "sociocentrism" and its implications for our understanding of the development of social skills remain unclear, however. The demonstration that certain social skills are in evidence at younger ages than Piaget believed does not remove the need for an explanation of the development of those skills. Furthermore, it is not clear that the demonstrated skills of initiating and maintaining peer engagement require the kind of perspective taking and perspective coordination which was Piaget's essential concern.

In this chapter, it will be argued that there exists no convincing disconfirmation of Piaget's analysis of the development of communicative competence in peer interaction. Rather, most investigations produce findings consistent with a Piagetian account.

The first half of the review that follows is a summary of research on young children's developing interaction skills. The

second half is a summary of the Piagetian framework and an examination of evidence for preschoolers' developing capacities for perspective-taking and perspective coordination in peer interactions. The studies reviewed provide evidence that, consistent with a Piagetian analysis, development of competence in peer interaction begins with mastery of 'local,' sequentially-organized routines and progresses to more flexibly organized and goal-directed interactions requiring the use of perspective taking.

Age-Related Changes in Peer Interaction Skills

Initiating Engagement with a Peer

Infants as young as 6 months of age are observed to direct social behaviors toward their peers and to respond to these peer behaviors. Infants are successful in their initiations about 50% of the time (group mean) (Vandell, 1980), and preschoolers 3 to 5 1/2 years old are successful in approximately 50-70% of their attempts (Garvey & Hogan, 1973; Gearhart & Shatz, 1978; Greif, 1977; Mueller, 1972).

Young infants initiate with vocalizations, touches, and smiles (Vandell, 1980). Toddlers 12 to 24 months of age initiate brief social 'games' -- ritual imitative, reciprocal, or complementary interaction sequences -- conveying "nonliterality of intent" (e.g. smiles or laughter), "irrelevancy of action" (e.g. non-instrumental actions such as foot-tapping), repetition, and familiar game contents often involving some object (Goldman & Ross, 1978; Hay & Ross, 1979).[1]

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[1] To anticipate the review of role play studies in Chapter III, these

Objects are increasingly integrated in social gestures with age (Jacobson, 1981; Mueller & Brenner, 1977; Mueller & Lucas, 1975; Vandell, Wilson, & Buchanan, 1980). Wellman and Lempers (1977) examined 2-year-olds' efforts to communicate about present objects ("naturalistic referential communication") to adults and to peers. They reported 78% success in toddlers' referential communications to their peers, where these communications usually consisted of some combination of looking at the intended listener, commenting about the object referred to, showing the object, and pointing to the object. Furthermore, when these toddlers received inadequate responses to their initiations, they virtually always (97%) tried again, evidence of their intention to secure engagement with the peer and not simply to direct a social behavior towards the peer.

Young children have a great deal to learn about the skills of initiation. For example, precursors of the adult routine of summons-answer-message (Schegloff, 1968) (e.g. "hey" -- "yeah?" -- "wanna play with me?") are inefficient and poorly organized. Lucas and Mueller (1973) reported a toddler summons-answer routine whose components appeared in any order on most any occasion, indicating an undifferentiated understanding of the functions of the components of the routine. For example, A might already have B's visual attention, and then say "da?"; or A might show B something (the equivalent of the message content) and then use the "da?" summons. Gearhart and Shatz (1978) analyzed initiation skills as used by 5 nursery school children in their classroom at 38 months and at 41 months. Children commonly

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early peer games reveal emerging abilities to transform the interactive context into one of play.

used a rigid and inefficient initiation procedure which consisted simply of communicating some message and, if uptake did not follow, repeating that message. However, over the 3 month time period examined, subjects made progress in adding the listener's name to that repetition, so that the repair now combined summons and message. Garvey and Hogan (1973) reported that slightly older children (42 to 66 months) did use the separable components of the adult summons-answer routine yet still did not display a consistent differentiation of attention-getters in the first turn from message on the third turn; subjects often included some message on the first turn.

Forbes and Lubin (1981a) examined the techniques of persuasion young children use to gain entry into others' activities in a classroom in relation to these children's beliefs about their peers' interpretations of their entry techniques. Children 5 years of age were found likely to express their desire or intention to join the group explicitly and simply repeat their intention and "ignore and move in" if rebuffed. Older children, 7 years old, were likely to express indirectly their interest in joining and, if rebuffed, to appear disinterested or to make an apparently voluntary exit. The data are interpreted by Forbes and Lubin as evidence that children's motivations when initiating group entry change with development. Older children desire not only to join a particular activity but also to be well regarded by their peers. Achievement of peer regard requires that the child make accurate inferences about his peers' attitudes toward his entry techniques and towards him, and, indeed, Forbes and Lubin report a relation between subjects' strategic entry techniques and their psychological inference abilities (as revealed in

interviews regarding their interpretations of standard entry situations).

In summary, it appears from the research to date that children learn only gradually to approach their peers with flexible initiation strategies intended to accomplish a diverse set of interactive goals. Consistent with Piaget's arguments concerning the growth of perspective taking, initiation skills that require interpretation of others' intentions, beliefs, and feelings develop very gradually during the preschool years. Research on the organization of young children's peer interactions, reviewed next, reveals a similar inflexibility in the organization of early toddler interactions and a gradual emergence of multiply goal-directed, hierarchically organized interactions.

Maintaining and Structuring Peer Engagement

There is considerable evidence that early peer interactions consist primarily of locally organized sequential routines and rituals. Topically organized dialogues and flexibily organized goal-directed activities are observed with increasing frequency among older preschoolers.

From his observations of toddler peer interactions in laboratory playgroups, Mueller (Mueller & Lucas, 1975; Mueller & Vandell, 1977) noted that toddler social interactions of three or more turns, when they occurred, were usually sustained by an imitative rhythmicity rather than planful, coordinated social behaviors. Bronson (1975) has also described unacquainted toddlers "intermittently echoing each other's vocalizations or reflecting each other's gestural patterns."

Similarly, Keenan's (Keenan, 1974; Keenan & Klein, 1974) reports of repetition procedures for sound play between twin boys age 33 months and Garvey's (1974a, 1974b, 1977) and Newman's (1978) descriptions of ritual round structures constructed from sequential repetitions and elaborations of turn contents among slightly older children all suggest that young children have difficulty structuring complex engagements. By ritualistically repeating one another's utterances, children display an orientation to the other and to their joint efforts as well as a committment to continue but without much elaboration of content possible (Newman, 1978; Shields, 1976). Goldman and Ross (1978) reported evidence that some of their toddlers knew general turn-taking procedures -- e.g. looking at partner, waiting for partner -- and others that were specific to a game -- e.g. repeating one's turn to prompt the partner's next move in that game. There were occasional problems in turn taking (simultaneous turns, one toddler taking two turns in a row), only some of which were successfully repaired. Many resulted in failure of the interaction, or a new game was constructed from the turn-taking violation, both indicating that toddlers are constructing turn-by-turn routines rather than jointly accomplishing an interactive goal. A notable feature of sequentially organized routines like these even if 'reciprocally' coordinated is that there is no purpose to them other than the doing of them.

These same investigators also report some reciprocally-coordinated behaviors which would appear to be more complex interactive achievements. Mueller (Mueller & Lucas, 1975; Mueller & Vandell, 1977), and Goldman and Ross (1978) reported that such

differentiation was unusual in their toddler data, but Mueller nevertheless noted a longitudinal progression from what he called a "role structure" in which social behaviors across participants are related either arbitrarily or imitatively to a "role structure" in which social behaviors across participants are coordinated complementarily. Bronson (1975) also reported that her toddler subjects, toward the end of their second year, engaged in

> periods of contingent exchanges referred to as 'work together' ... actions that are mutually responsive and thus require both perception of what the other is doing and use of this information in shaping one's actions. In the majority of instances there is a commonly perceived goal to be jointly achieved; sometimes mediated by the toy ... sometimes by the reenactment of commonly perceived events. (p. 149)

Garvey (Garvey, 1974a, 1974b, 1977; Garvey & Hogan, 1973) reported that her young preschool subjects produced ritualistic alternating behaviors, more complex than reported for toddlers and sustained in successively more complex turns. Older children's conversations displayed an increasing resemblance to adult conversations; older peers were able to coordinate turn-taking and differentiated thematic content without use of repetitions in successive or alternating utterances.

In contrast to sequentially organized routines and rituals, topically organized dialogues put far greater demands on children's capacities for perspective taking and perspective coordination, in that participants must keep track of what each participant has said and make inferences about what each knows as bases for further contributions to the dialogue. Thus, as Ervin-Tripp and Mitchell-Kernan (1977) describe it, older preschoolers are learning to produce "rationally" organized dialogues. Their account of peer dialogue

development is consistent with Piaget's (1926/1955) account, as described next.

Perspective Taking and Peer Interaction

In the classic works of Piaget (1926/1955) and Parten (1932), the social cognitive abilities to represent the perspectives of playmates and the interactive ability to coordinate these perspectives in the service of a common group goal -- in the service of 'rational' peer dialogue -- emerge slowly with social experience.

According to Piaget, genuine conversation ("collaboration in abstract thought" and "genuine argument") emerges as a result of successively developing abilities for: "monologue" (Stage I), "conversational association" and "quarrel" (Stage II, first type), "collaboration in action or non-abstract thought" and "primitive argument" (Stage II, second type), and "collaboration in abstract thought" and "genuine argument" (Stage III). The capacities for representing other participants' perspectives -- their intentions, beliefs, and feelings -- and for purposefully constructing a representation of others' perspectives in order to achieve a social goal do not emerge until Stage III. Stage I and Stage II constitute the interactive contexts in which Stage III abilities develop. Piaget supported his scheme with observations and a table containing the frequencies of these conversational types among children ages 3 1/2 to 7. The finding that only 3% of these subjects' conversations could be classified as Stage III was taken as evidence that effective use of perspective taking in peer dialogue does not emerge until after age 7.

According to Parten's "genetic sociology," group cooperation

merges as the endpoint of a developmental sequence consisting of "unoccupied behavior," "solitary play," "parallel play," "associative play," and "cooperative play." Her criteria for distinguishing between the two interactive categories, associative and cooperative play, appear to be consistent with Piaget's concern with the emergence of the abilities to interpret and coordinate differentiated perspectives: presence of a common goal (only in cooperative play), group membership (well-defined only in cooperative play), and division of labor (only in cooperative play). The scale was validated on the basis of 60, 1 minute classroom observations of 42 children ages 2 to 4 1/2 years. As predicted, age was positively correlated with frequency of social play (associative and cooperative play combined), negatively correlated with frequency of solitary play and unoccupied behavior. She observed very little cooperative play in this sample. Rubin (1976a) offers evidence that Parten's developmental scheme represents a growth in perspective taking skill. Based on classroom observations of preschool children and children's performances on a battery of perspective taking tasks, he found the predicted positive relation between associative play (there was little cooperative play) and perspective taking skill and the predicted negative relation between parallel and onlooker/ unoccupied behavior (combined) and perspective taking skill.

There have been a number of recent efforts, like Rubin's (1976a), to demonstrate a relation between perspective taking skills and social skills in peer interaction, but interpretation of this literature is problematic. Shatz and Gelman (1973) argue that most measures of perspective taking skill are testing spatial or classificatory

relations not yet in the repertoires of young children and that therefore it is no surprise that young children appear "egocentric" on these tests. They predict no relation between preschoolers' competence in peer interaction and their performance on perspective taking tasks. Shatz and Gelman provide evidence that 4-year-olds, when talking to 2-year-olds, to 4-year-old peers, or to adults about a familiar toy adjust, appropriate to their listeners' capacities, the syntactic and semantic complexity of their utterances and the frequency of attentional devices. They argue that these communicative adjustments are evidence of perspective-taking abilities even though subjects did poorly on two perspective taking pretests. The Shatz and Gelman paradigm has been used in several studies with comparable results (Masur, 1978; Menig-Peterson & McCabe, 1978; Sachs & Devin, 1975). It has been debated, however, whether the young child adjusts to the needs of her listener -- and is thus taking the perspective of her listener -- or to listeners of that type ('babies,' 'friends,' 'mommies'). Forbes (1978) reviews Sachs & Devin's (1975) finding that 4-year-olds have been shown to adjust their communication to a baby doll as well as to a real 2-year-old baby as potential support for a social learning theory position. On the other hand, 4-year-olds have been shown to adjust their communications more effectively when the 2-year-old partner provides more feedback and more complex feedback (high mean length of utterance) rather than less (low mean length of utterance), and thus 4-year-olds are capable of using certain information provided by a particular listener (Masur, 1978). There is evidence, then, that preschool children can represent at least an elementary differentiation between knowledge states in speakers and

listeners and that Piaget exaggerated the egocentrism of the young child.

Despite Shatz and Gelman's (1973) contention that researchers should expect no relation between competence in peer interactions and performance on perspective-taking tasks, a number of correlational studies do report a positive relationship (Barrett & Radke-Yarrow, 1977; Connolly & Doyle, 1981; Emmerich, Cocking & Sigel, 1979; Eisenberg-Berg & Hand, 1979; Gottman, Gonso & Rasmussen, 1975; Jennings & Suwalsky, 1981; Kurdek, 1977; Marcus, Telleen & Roke, 1979; Rubin, 1976a, 1976b). In these studies (as in the Shatz and Gelman, 1973, and Rubin, 1976a, studies described above), subjects are administered a battery of perspective taking tests and subjects are observed in peer interactions. Perspective taking scores are then correlated with either observers' judgments of subjects' competence in interactions or with frequencies of certain critical social behaviors, such as peer contacts, helping, sharing, comforting, and social problem solving. The battery of perspective taking tasks generally includes measures assumed to tap the kind of perspective taking needed in competent interactions -- interpretations of social interactions, or of persons' feelings, thoughts and intentions. Assessments of social competence are determined on the basis of Parten's (1932) social interaction scale or Smilansky's (1968) play scale (an adaptation of Piaget's 1951/1962 analysis of play development consisting of a sequence of "functional play," "constructive play," "dramatic play," and "games with rules") or observed frequencies of prosocial behaviors in interactions. Although perspective taking measures correlate weakly among one another (Ford, 1979; Hudson, 1978;

Kurdek, 1977; Rubin, 1973, 1978), most correlational studies report a relation between at least one perspective taking measure and one social cognitive measure. Such findings provide some evidence that perspective taking is related to competence in peer interactions, though they do not, in that they are correlational data, inform the developmental direction of that relation, nor do they reveal in what way perspective taking is used in peer interaction.

There is very little research which considers the social cognitive abilities which underlie particular interactive competences. Shatz and Gelman (1973), as reviewed above, described the specific adjustments 4-year-olds made to different listeners when explaining a toy. Nucci and Turiel (1978) observed the responses of children 2 1/2 to 5 1/2 to their peers' "moral transgressions" ("involv[ing] the justice, welfare, or rights of individuals or groups"). Children's responses frequently included "injury and loss statements" and "emotional reactions," evidence that children recognized the need to justify their accusations of wrongdoing with descriptions of physical and emotional feelings and wanted the wrongdoer to take the perspective of the wronged and recognize the effects of his/her act on the feelings of the wronged. Similar research by Much and Schweder (1978) in which kindergarteners were observed in "situations of accountability" in their classroom indicates that kindergarten children have acquired some skill at interpreting and describing mental states relevant to the disputed acts, including intentions. Although quantitative data are not presented, kindergarteners (but not nursery school children) are reported as frequently justifying failure to follow instructions with an explanation of the accused's intention.

Conclusions

Although much of the research on peer interaction is intended to disconfirm Piaget's model of the development of collaboration, in fact there is substantial evidence for the model's essential appropriateness. While very young children are far more competent in peer interactions than Piaget's original findings would predict, the course of development of interactive competence revealed in recent investigations resembles his model. As reviewed in the first half of this chapter, the development of competence in peer interactions can be described as a gradual shift from sequential, local interactive routines to increasingly rational, hierarchically organized interactions. Growing competence in interactions requires the development of the capacity for representing goals and interactions among participants' goals at a higher level of complexity than a particular local action. Thus communicative competence requires perspective-taking and perspective coordination, and, as reviewed in the second half of this chapter, there is evidence that, with age, children are increasingly taking the perspective of others in interactions.

Most of the literature on peer interaction reviewed in this chapter can be regarded as primarily descriptive. Cross-age comparisons are used to reveal developmental differences in the forms and functions of peer interactions. Other than a few correlational studies which provide some evidence of the social cognitive abilities related to these differences, there are few studies which are focused examinations either of the social knowledge required in competent interactions or of the mechanisms which can explain how the social

cognitive abilities enabling rational interaction develop.

In the next chapter, research on children's interactive role play is reviewed. In this literature, the relation between social cognition and social interaction is frequently discussed, although, as in the literature just reviewed, it is not necessarily adequately researched. The argument is often made that interactive role play demands the use of perspective taking and is therefore a context for the development of perspective taking. Since children engage in role play primarily with peers, interactive role play with peers becomes an important context for investigating the development of social cognition, social interaction, and their relation.

CHAPTER III

THE DEVELOPMENT OF INTERACTIVE ROLE PLAY

Although it has been reported that virtually all preschoolers (at least western, middle-class preschoolers) engage in role play and do so for a substantial portion of their free play time (Fein, 1981), there has been little research that shows just how young children do role play. The studies that exist are described in this chapter. In addition, there are other literatures which provide some indirect evidence of the nature of role play and its developmental course, and these are also summarized: correlational studies examining the relation between perspective-taking skills and sociodramatic play; training studies examining the effects of sociodramatic play training on social skills (especially perspective taking); studies of children's narratives, since in story-telling, as in role play, children must create and maintain coherent pretense; studies of children's solitary role play with dolls. In integrating these various literatures in the last section of this chapter, it is argued that the construct of a script (Schank & Abelson, 1977) may offer an explanation for preschoolers' early successes at coordinating role play. Shared script knowledge of everyday interactive sequences of behavior may enable children to coordinate social behaviors and 'play roles' without the necessity to represent one another's plans for play and collaborate in constructing a shared plan for play (cf. Nelson & Gruendel, 1981).

Interactive Role Play:
Three Domains of Representational and Communicative Competence

There are two classic analyses of play which have greatly influenced the study of interactive role play. Gregory Bateson, in an influential paper entitled, "The message, 'This is play,'" described play as a form of communication (Bateson, 1976): in play, he argued, participants communicate non-literal intent and create and maintain the delicate boundary or "frame" between real and pretend. El'Konin (1966) has argued that children initially merely happen upon objects in their play environments and then do with them as they have observed others use them; with development, children learn that words can transform (re-"frame" as in Bateson's analysis) the meanings of objects and actions, and objects become incorporated as symbolic vehicles for increasingly complex play themes elaborated in discourse. In role play, El'Konin argued, children initially simply engage in the inter-behaviors which the play objects suggest to them (e.g. one child puts a stethoscope on another's chest) and only later learn to represent the goals motivating such behaviors and symbolically portray motivated "social relationships ... between adults" (e.g. the 'patient' comes to the 'doctor' with a 'symptom' he wants her to relieve).

According to Bateson and to El'Konin, successful and coherent interactive role play requires the development of two domains of representational and communicative competence -- the capacity to "frame" or to transform symbolically one's nominal reality into one of pretense and the capacity to interpret and represent the behaviors of the persons being portrayed in terms of their underlying intentions in

order to motivate the portrayal. More recent analyses of interactive role play, within the peer interaction literature, are examinations of third domain of competence, the capacity for achieving shared agreement among the role players regarding the meaning of their actions, a capacity which requires the representation and coordination of playmates' perspectives. Research examining the development of each of these three domains of communicative competence -- co-constructing shared agreements, framing pretense, and motivating a portrayal -- are reviewed below.

It must be noted that, while these domains are distinguished in the literature, there are competences in common across domains. The abilities to distinguish reality from pretense and to communicate either state to another in order to reach shared agreement regarding that state require an 'objective' understanding of the conventional nature of a symbol. The abilities to interpret both a playmate's intentions and the intentions of the person to be portrayed are kinds of perspective taking. Although these three domains represent some common social cognitive abilities, they are heuristically useful bases for literature review and for later data analyses.

Collaboration in Interactive Role Play

Because young children appear to be successful at role play, observers have argued that young children are capable of coordinating participants' perspectives in order to reach agreement on plans for and interpretations of their play: It is assumed that interactive role play necessarily requires perspective-taking and perspective coordination -- "collaboration in abstract thought" (Piaget,

1926/1955). Available reports of young children's capacities for true collaboration in role play are reviewed below and found to be unconvincing. There is better evidence that interactive role play is a context for the development of collaborative skills, and evidence bearing on this issue is reviewed next.

Reports of Collaboration in Interactive Role Play

Rubin (1980; Rubin & Pepler, 1981) and Garvey and Berndt (1977) argue that even the earliest dyadic role play (which is, according to Garvey, mother and baby and occurring around 3 years) is evidence of perspective taking abilities. For evidence, Garvey provides illustrative observations of children as young as 3 years shifting creatively from event to event while maintaining complementarity of roles across events and displaying sensitivities to the needs and feelings of "baby" shown by "mother". Rubin and Pepler (1980), reviewing certain of Garvey's data, note that even young preschoolers mark play-nonplay in their talk and correct and direct one another in role play, skills which they interpret as evidence of understanding a partner's intentions and understanding that one must communicate one's own. There are also reports that preschoolers negotiate agreements on their role play. Cook-Gumperz and Corsaro (1977) observed that the role play interactions of some preschoolers observed in a playhouse setting proceeded through four phases -- claim of area, allocation of roles, setting up of the scene, and role play.

> The children ... relied on communicative strategies like tag questions, intonation and stress patterns, and membership-categorization devices [e.g. "kitties"] to instruct one another regarding what they were doing, while the interaction flows within a general framework based on shared conventionalized expectations. (p. 422)

Both Sachs, Goldman, and Chaille (1982) and Garvey and Berndt (1977) reported that plans for role play were negotiated at all ages, although negotiation of a joint plan (vs. one's own plan) was more likely among older subjects.

These reports of children's communicative efforts to establish the fantasy identities of objects, roles and settings provide some convergent evidence of young children's concerns to construct shared meaning. The findings are consistent with those of Shatz and Gelman (1973; Gelman & Shatz, 1977) and others, reviewed in Chapter II, that young preschoolers can recognize at least an elementary differentiation between the knowledge states of self and listener, inform one another of their intentions, and make some generally appropriate adjustments in their communications. However, the data are not persuasive as evidence of perspectivetaking and perspective coordination. Analyses by example or by global codings are not adequate as evidence of the complex negotiation that collaboration in abstract thought must entail.

Interactive Role Play as a Context for Social Development

Because the interactive coordination of roles in role play seems to demand perspective-taking, it has been hypothesized as a context in which these competences are acquired (Garvey & Berndt, 1977; Rubin & Pepler, 1980; Smilansky, 1968). Correlational studies have demonstrated at least a relationship between frequency of interactive role play and perspective taking skills or competences in peer interactions Rubin and Maioni (1975) reported a correlation between frequency of dramatic play (from an adapted version of

Smilansky's 1968 play scale) and spatial role taking ability. Rubin (1976a) reported a correlation between associative play (Parten, 1932) and perspective-taking skills. Connolly and Doyle (1981) found a relation between frequency of social pretense and social competence as judged by teachers and as evidenced in observations of greater social initiativeness and more extensive and successful peer interactions.

There have also been a number of demonstrations that training children in sociodramatic play results in improvements in post-training assessments of social and cognitive skills, including various perspective-taking assessments.[1] Children given training in role play have improved in social role-taking (Burns & Brainerd, 1979; Iannotti, 1978; Rosen, 1975), cooperative skills (Rosen, 1975), group social activity (Smith & Sydall, 1978), and knowledge of kinship relations (Fink, 1976).

Conclusions

There is evidence that interactive role play supports the development of perspective taking skills necessary to collaboration. However, the course of social development in this context has not been examined in detail. One purpose of the present research is to produce detailed descriptions of preschoolers' role play that permit

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[1] However, as Smith and Sydall (1978) discuss, training studies confound the effect of adult training with the effects of role play; the role play experience is not that of the spontaneous invention of young peers. How serious this criticism is is an empirical question. It has been argued that the proclivity for play, or at least for complex and sustained play, whether with adults, peers, or alone, has its origins in the encouragements of adults, and that training studies merely supply the adult support less present in certain cultural groups (Smilansky, 1968; Sutton-Smith & Heath, 1981).

inferences regarding preschoolers' interactive competences and their development.

Framing Pretense

There has been very little investigation of children's developing capacities for communicatively marking or "framing" pretense in role play. Sachs, Goldman, and Chaille (1982) report, from observations of preschool dyads in a laboratory playroom, a developmental increase in proportion of pretense utterances, a developmental increase in explicit pretend statements (e.g. "make believe..." or "I'll pretend..."), a developmental increase in transformation of the dramatic context (e.g. "hospital," "home," "car"). Sachs et al. (1982), as well as Garvey and Berndt (1977) from similar laboratory playroom observations, report developmental increases in role, action, and object transformations.

Indirect Evidence: Children's Narratives

As in interactive role play, the telling of a story requires the construction of a fantasy frame, a "story world" (Scarlett & Wolf, 1979). Scarlett and Wolf reported, on the basis of play narratives (supported with dolls and props), collected from a sample of children followed longitudinally from age 2 years, that young children often did not frame their stories. Language functions were not differentiated for narrative, dialogue, and "metanarrative". As an

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There was no developmental increase in the frequency of pretense utterances which were planning (57%) vs. enactment (23%) (the remaining 20% of utterances were ambiguous), a finding which was not interpreted by the authors.

example of the lack of metanarrative, the symbolic use for a prop often did not get explicitly defined (e.g. "Let's pretend ..."). Events did not get marked as fantasy within conventional narrative frames. Beginnings and endings were not necessarily marked as such with conventions such as "once upon a time ..." and "happily ever after." Botvin and Sutton-Smith (1977) reported, based on analyses of children's stories, that conventional boundary markers ("once upon a time' ... the end") were not used by many young children and those who did did not necessarily use them consistently.

Scarlett and Wolf (1979) also showed how the work of maintaining the story world, once initiated, consists of the construction of a coherent story. Their subjects did not initially differentiate story events and real events. A prop, designated as a lion, might then be feared for its bite. Early story lines had "permeable boundaries," in that elements of the story (characters, setting, purpose of action) were added or dropped unpredictably.

Conclusions

It appears from the studies just reviewed that although 'framing' of pretense consists of the use of certain 'meta-communicative' devices, the ongoing work of maintaining a pretend state consists primarily in constructing a coherent symbolic portrayal. To date there has been some developmental investigation of certain linguistic devices (explicit pretend requests such as "Make believe..." or "Let's pretend ...") providing evidence that these are used increasingly with age. A purpose of this project is to identify additional communicative means for framing pretense and to investigate

developmental changes in the contexts of use of framing devices.

Portrayals

Consistent with El'Konin's analysis (El'Konin, 1966), children's early role portrayals are different from the portrayal of motivated social interactions. Garvey and Berndt (1977) reported that the early role portrayals of their youngest subjects (2 1/2 to 3 1/2) were often stereotyped, having a ritual character consisting of sequences of interactive routines analogous to preschoolers' early conversational routines. It appears that children are often portraying situation-appropriate behaviors which they, as pairs, construct as interactive rituals. The ritual play structures of Garvey and Berndt's subjects consisted minimally of a brief almost skeletal and defining "case" structure (e.g. a "mommy" screams for help and a "fireman" runs to put out the fire), and sometimes these performances were repeated much like rhythmical conversational rounds are with limited kinds of thematic modifications (e.g. the fire breaks out successively in different rooms of the house) or procedural modifications (children take turns playing each role).

The presence of stereotypy and ritual and the absence of character motivation is typical of young children's stories as well. Botvin and Sutton-Smith (1977) reported that only the stories of older children could appropriately be termed "plot stories." Scarlett and Wolf (1979) observed that children were able to create consistency in story pretense by portraying "prototypes, or stock characters, and scripts," but what was missing was the portrayal of a problem as perceived and resolved by the characters and not by the child. Miller (1979) reported that children ages 4 through 10 progressed through 4 stages of understanding character conflict in stories. When told stereotyped stories with unresolved conflicts, preschoolers either could not distinguish the intentions of the characters or, a more advanced response, produced some resolution and believed it to be the 'true' story ending.

Sachs, Goldman & Chaille (1982) suggest that the concept of a role does not emerge until 3 1/2. They report that the proportion of their preschool dyads' planning utterances concerned with roles (vs. actions or objects) increased from 0% at age 2 to 18% at age 3 1/2 and then decreased to 8% at age 5. They interpreted their finding as evidence that the concept of a role emerged at 3 1/2, yet children at this age did not necessarily share these concepts and, as a result, engaged in a great deal more role negotiation than 5-year-olds. (Direct evidence of role negotiation and conflict was not reported, however). Consistent with their argument, 3-year-olds and 5-year-olds were equally engaged in the planning of role "characteristics" (2-year-olds 0%; 3-year-olds 13%; 5-year-olds 12%), even though 5-year-olds were no longer as involved in planning roles per se. Similarly, Garvey and Berndt (1977) reported that, with age, roles increasingly included more diverse activities. The findings of Sachs et al and of Garvey and Berndt that suggestions for joint role play increase with age was interpreted by both as evidence of increased abilities to take the perspectives of their peers and to agree on plans for role play, but, as discussed in the last section of this chapter, these findings may instead reflect increasingly shared "script" knowledge of interactive sequences of role behaviors.

Indirect Evidence: Children's Solitary Doll Play

Watson's (1979; Watson & Fisher, 1980) examinations of children's developing "social role concepts" from observations of semi-structured solitary doll play have produced data consistent with studies of children's interactive role play and children's stories. Watson

reports that the solitary doll play of children ages 1 to 7 years can be scaled in terms of a sequence of: (1) active other agent/labeling specific persons (no combination of doll behaviors which resembles a role), (2) behavioral role (no complementary role), (3) social role (complementary to another social role), (4) compounded social role/social role with two complementary roles (roles change with age/three roles interact in a scenario), (5) intersection of roles for the same agent, (6) intersection of three social roles for the same agent. Although Watson has not examined children's concepts of the goals motivating social role behaviors, doll play assigned to "social role" (level 3), representing role-appropriate interactive behaviors, may include some motivated interactions. (No doll play at levels 1 and 2 could.) This level of doll play was achieved by most preschoolers in Watson's samples by mean age 4.6 years. This age is older than the age of 3 years reported for early successes in interactive role play. Solitary doll play may well be a more difficult task context for preschoolers to represent social interactions.

Conclusions

There is some empirical support for El'Konin's view that the capacity to interpret others' behaviors in terms of their motives and to portray motivated social interaction emerges gradually during the preschool years. A purpose of the present research is to describe developmental changes in children's portrayals, as these reveal emerging understandings of persons' goals in interactions.

Children's Developing Script Knowledge

As reviewed above, young children do not usually portray characters in motivated interactions, and character portrayals are often stereotyped and ritualistic. Young children do not appear to be representing their characters' goals or the relation among characters' goals in interaction. Similarly, as reviewed earlier, there is presently no persuasive evidence that young children are capable of representing their peers' perspective and coordinating perspectives to achieve collaborative play agreements. An alternative explanation for early successes at role play is offered here. Children may share "script" knowledge of sequences of behaviors appropriate to a given role play theme, knowledge which enables them to produce coordinated sequences of interactions without need for representing their characters' goals or their partner's perspective.

A script has been defined by Schank and Abelson (1977) as

> a structure that describes appropriate sequences of events in a particular context. A script is made up of slots and requirements about what can fill those slots. The structure is an interconnected whole, and what is in one slot affects what can be in another. Scripts handle stylized everyday situations... Thus a script is a predetermined, stereotyped sequence of actions that define a well-known situation. (p. 41)

Schank and Abelson offer a tentative characterization of script development, supported by argument and case studies of Schank's two children. Early scripts are argued to be organized as a series of events; eventually scripts are organized in terms of goals. Schank and Abelson describe this shift as a shift from a "script-based" to a "plan-based" system. Such a shift is consistent with a shift from role play as sequential routine or ritual to motivated, goal-directed

portrayal.

Katherine Nelson has been investigating children's developing script knowledge (1981; Nelson & Gruendel, 1979a, 1979b, 1981), and she has produced findings which can be interpreted as support for a slowly developing understanding that social interactions are (or can be) motivated. She reports that even young preschoolers respond to questions like, "What happens when you eat lunch at school?" with "event descriptions which are very general, very skeletal, and which characteristically employ both the neutral 'you' as subject and the present tense" (Nelson & Gruendel, 1979b). Order of events mentioned, regardless of how many or which events, correspond with the order determined by the investigator from observations of the event. These kind of data provide evidence that children have abstract representations of everyday social events which encompass the same kind of social unit as do adult scripts. But, for the younger preschool subjects, these representations are more likely to lack detail, certain conditions on acts, embedded acts and representation of causal relations among acts. Nelson and Gruendel (1979b) report that, while most 4-year-olds did offer "simple sequences" as event descriptions, a few offered only "single acts," a response which never occurred among 6- and 8-year-olds; conditional sequences were very unusual among 4-year-olds, while act embedded sequences never occurred. There was an increase with age in total acts mentioned, in level of commonality (shared knowledge), in social focus (inclusion of acts requiring interaction, such as invitations, playing games), in sequencing agreement, and a decline with age in "episodic" (personal and idiosyncratic) protocols and in episodic intrusions. There was a

developmental decline in simple sequences and a developmental increase in complex, conditional sequences and act-embedded sequences, suggesting that event representations were increasingly hierarchically organized. Their data suggest that social event representations of young preschoolers may be different from older preschoolers and from adults. In particular, their findings of an increase in representation of causal and conditional relations among acts and in social focus are consistent with El'Konin's view that the capacity to understand social behaviors as motivated social action emerges with development.

Nelson's findings that most young children's descriptions of everyday events were internally consistent (without intrusion of events approriate only to other contexts) and sequentially organized may explain young children's early successes at interactive role play: If peers share (at least some) knowledge of context-appropriate, interactive sequences of behavior, they should be able to role play social behavior even if they are not portraying motivated social action. A purpose of the present work is to investigate young children's developing representations of social interactions, and the ways in which young children use their knowledge in the co-construction of role play episodes.

Summary and Conclusions

In the literature on interactive role play to date, three domains of communicative competence have been examined: the cooperative establishment of shared plans for and interpretations of play, the communicative "framing" of the state of pretense, and the

portrayal of motivated persons (of persons with underlying intentions, beliefs and feelings). Although the literature on interactive role play is small, and claims are supported more often by anecdote than analysis, the findings that do exist indicate that interactive role play is a context which places demands on its participants for the development of successful cooperation -- for "collaboration in abstract thought" as Piaget originally defined it.

The demonstration that very young children have knowledge of scripts may help explain very young children's competences in interactive role play with peers (Nelson & Gruendel, 1979a). Piaget originally argued that a transitional category of interactive competence is "collaboration in non-abstract thought" -- the co-construction of immediate, practical activities not requiring the representation of others' perspectives or of topics and intentions not supported by the immediate context. These interactions are successful because participants share knowledge about their immediate activity even though the 'fact' of their shared knowledge has not been co-established. Scripts for social interactions appear to be a particularly useful kind of knowledge for facilitating successful interactions, in that they specify a sequence of intercoordinated social behaviors appropriate to a particular context, a context which is necessary to and supports the interactions (Nelson & Gruendel, 1979a). A central question for the present research is whether the early successes of peers in interactive role play may consist of "collaboration in non-abstract thought" or the coordinated production of script sequences possible because peers share knowledge about the social behaviors appropriate to a particular context.

Much more needs to be known about the nature of children's communicative efforts in interactive role play. Review of the literature indicates that there remains disagreement regarding the social cognitive and communicative abilities necessary to well-organized interactive role play. Careful descriptions of children's interactive role play will help resolve disagreements regarding preschool children's competences, and the function of role play in their development. Accordingly, in this project, description of role play interactions are used as evidence of children's developing competence in the three domains reviewed: collaborating in the negotiation of agreements, framing interactive pretense, and portraying of motivated persons in interaction. In addition, the possibility that script knowledge enables children to coordinate social behavior without complex perspective taking -- that it enables "collaboration in non-abstract thought" -- is examined by comparing the contents of the scripts portrayed to the success of the role play interactions. Thus a Piagetian model of the development of interactive role play, one which incorporates script knowledge as an explanation for Piaget's transitional stage, is tested against age differences in the nature of role play interactions.

The script hypothesis is a provocative one and one important to pursue. However, given what is presently known about role play as a task, the script knowledge hypothesis is not an obvious resolution of discrepant claims regarding children's successes in role play. While shared script knowledge should facilitate coordination of social behavior in everyday contexts (for participants of any age), role play is different from 'real,' everyday interactions, in that the context

must be co-established symbolically before it can function as a support for any further interactions. How cognitively and interactively complex such framing agreements are is not clear. They would appear to require social cognitive abilities more complex than those necessary to many mundane interactions. Whether young children make such agreements as effectively as has been noted anecdotally is an important question to be addressed in this project.

CHAPTER IV

A MODEL OF THE COGNITIVE AND INTERACTIVE DEMANDS OF COLLABORATIVE ROLE PLAY

The present investigation of interactive role play was guided by an a priori, endpoint model of the cognitive and interactive demands of social interactions,[1] and by a Piagetian model of the development of these interactive competences. On the basis of the endpoint model, cooperative role play is represented as a kind of social interaction organized as two, embedded levels of interactive organization. The first level is that of cooperative interactions. The second level is that of the embedded, dramatized scenario. A detailed description of these two levels follows presentation of a general analysis of cognitive processes demanded in the course of social interactions. During the presentation, the reader may find it useful to refer to Table 1 (Components of the social plan/social episode model). Following presentation of the role play model, a Piagetian account of the development of collaborative role play is outlined as the framework for the investigation.

Social Plans and Social Episodes: Introduction

Each participant in a social activity constructs a plan for the

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[1] The model of cooperative role play used in the present research is adapted from an analysis of teacher-child interactions (Newman & Gearhart, 1980). It, in turn, was motivated by Miller, Gallanter & Pribram's (1960) classic analysis of a "public plan."

Table 1

Components of the Social Plan/Social Episode Model

Social plan:	Any participant's representation of the social episode
Social episode:	Coordinated social activity by a particular set of individuals in a particular setting (e.g. a dinner, lecture, meeting, party)
Role relations	
'With' plan:	Intent to work together with another believed to intend to work together to achieve same goal
Cooperative episode:	Social episode constructed by persons having 'with' plans
'Get' plan:	Intent to use another to accomplish one's own goals
Complementary/ instrumental episode:	Social episode constructed by persons, one of whom has a get plan, the others are willing to comply
Reciprocal 'get' plan:	Intent to use another who intends to use you
Complementary/ reciprocal episodes:	Social episode constructed by persons having reciprocal 'get' plans
Competitive plan:	Intent to accomplish a goal before another who intends the same thing
Competitive episode:	Social episode constructed by persons having competitive plans
Organization of social episodes	
Arrangement phase:	Social preplanning of critical components of the episode (e.g. episode goals, setting, participants, participant roles, procedures, necessary tools and procedures, rules of interaction)
Accomplishment phase:	Getting the task done (which may require resumption of planning negotiations)
Finish phase:	Agreeing that the task is finished, reflecting on episode accomplishments, cleaning up, closing the interaction

activity. Such a plan is termed here a 'social plan,' since it is a plan for a social activity and since that plan includes a representation at least of other persons' behaviors if not of other persons' beliefs and intentions. A social plan is both a plan for what is to be done and an interpretation of what is going on and has been done. Each participant constructs a social plan, and thus a social plan is the content of each participant's 'perspective' on his/her interactions.

A social plan, as a cognitive representation, is distinguished from a 'social episode,' which is an observable social product, the outcome of interactive work. During any episode, the relation between the social production which is the episode and each participant's plan for (interpretation of) it is continually a problematic one for each participant. Participants are likely to encounter disagreements and misunderstandings, whose resolutions often -- but not necessarily -- require the complex cognitive and interactive work of inferring the other's plan (perspective taking), formulating one's own plan, comparing one another's plans, and constructing some effective compromise. However, participants do not engage in cognitive or interactive work at such depth throughout an interaction. Participants assume they share interpretations of what is happening by virtue of their common membership in some reference group. As long as each participant perceives coordinated interaction and ostensible agreement, s/he continues contributing to the interaction guided by her own social plan and her reasonable assumption that it is probably shared (cf. Newman, 1978). However, the contingencies inherent in social interaction are such that successful coordination must

sometimes be intentionally negotiated, and at least some of these negotiations require efforts to assess other participants' plans .

The constructs of 'social episode' and 'social plan' are intended to represent a particular level of analysis in the organization of social life. A social episode can be located in a day's stream of activities wherever there is coordinated activity by a particular set of individuals in a particular setting. Examples of an episode are a play (cf. Goffman, 1974), a talk (Frake, 1977), a lesson (Erickson & Shultz, 1977; Mehan, 1979), , a dinner, a meeting, a party, a shopping trip. Episodes can at times be difficult to locate, for the participant as well as an observer. There may be shifts in participant composition (two clerks change shifts in the middle of serving a customer), in purpose (certain faculty members persuade others to redefine the purpose for their meeting), or in setting (after dinner, guests and hosts retire to another room for coffee), and these shifts pose problems for both investigator and participant in locating the episode, in interpreting 'what's happening.' As resources for interpreting and planning social episodes, persons have knowledge about episodes in general as well as knowledge about specific kinds of episodes (talks, meetings, dinners, parties). A general concept of a social episode includes the knowledge that social action is usually motivated, that persons normally gather in a given setting to accomplish some set of interrelated goals, that commonly the setting facilitates the accomplishment of those goals, that commonly these interrelated goals are distributed across participants and constitute their roles within the episode, and that usually role organization facilitates accomplishment of episode goals. Knowledge

of social episodes thus includes knowledge of the goals motivating episodes and the means by which participants accomplish those goals -- critical activities, a critical number of participants, essential participant roles (differentiated allocation of episode goals), necessary objects and features of the setting. A specific social plan may be constructed for a particular episode on the basis of such general knowledge, and on the basis of knowledge about episodes of that particular type (e.g. shopping in grocery stores rather than in department stores or chain drug stores or clothing boutiques). Social plans may also be constructed of pre-packaged social routines (cf. Harré & Secord's, 1973, notions of "ritual" and "liturgy") which are known by the planner to be appropriate for that episode yet whose function in accomplishing episode goals is not necessarily understood. (Although the social plan construct is concerned primarily with the rational bases of social interaction, it is recognized here that a great deal of social interaction is not rational.)

Role Relations

Social plans and social episodes can be categorized in terms of four basic role relations. A 'with' plan is the construction of a planner who intends to work cooperatively with another who is believed to share the same plan; the episode co-constructed by participants having 'with' plans is a cooperative episode. A 'get' plan is the construction of a planner who intends to use another to accomplish his own goals; the episode co-constructed by getter and gettee is a complementary/ instrumental episode. A 'reciprocal get' plan is the construction of a planner who intends to use another to accomplish his

own goals and understands that the other is, complementarily, using his to accomplish her own goals; the corresponding episode type is complementary/reciprocal. A 'competitive' plan is the construction of a planner who intends to accomplish a goal before another who has the same intention and who shares with the other the belief that this is the case; the corresponding social episode type is competition. Although the present research is concerned just with the development of cooperation (in interactive role play), the descriptions below of other role relations serve to clarify, through contrast, what is and is not meant by cooperation. They also serve as models of kinds of role relations which get portrayed in role play.

'With' plans are plans for cooperative activity. Each partner intends that the goals be shared and the outcomes be jointly produced. Each participant in a cooperative episode has a 'with' plan, but because each knows that the plan may not be shared and because each intends that it be shared, they both make efforts to communicate their plans, to ascertain one another's plans, and to negotiate a shared plan. However, both participants know that public resolution is no guarantee of shared understanding. Therefore both anticipate possible problems during the episode that will require further negotiation.

'Get' plans are plans for the instrumental use of another person for the accomplishment of the planner's own goals. The accomplishment of 'get' plans requires requests by the planner to the gettee. In complementary/instrumental episodes, getter and gettee do not need to ascertain one another's plans beyond the local goal represented in the task to be done by the gettee, and the willingness of the gettee to do the task. These episodes can thus be coordinated without ongoing

concern for the relation between participants' mental states.

Reciprocal 'get' plans are plans for the instrumental use of another person who is believed by the planner to have a plan for the instrumental use of him. A clerk-customer interaction is an example of a complementary/ reciprocal role relation. A clerk, in order to do her job, must serve customers. She uses her customers to accomplish her financial and work (e.g. experience, advancement) goals. A customer, in order to purchase needed items, must get a clerk to serve him. He uses the clerk to accomplish his goal to obtain goods. In a complementary/reciprocal episode, it is not necessary that either participant have a representation of the other's plan in order for each to get accomplished what s/he needs to. One participant or both may have only a 'get' plan for that episode. But there are certain kinds of events within reciprocal/ complementary episodes which, if they occur, cannot be interpreted unless each participant understands the complementary relations between their 'get' plans. For example, if a clerk is rude and unhelpful, the customer may threaten to report her behavior to her supervisor; he reminds her of her goal of employment in order to remind her of his goal of service. Thus where both participants have a reciprocal 'get' plan (or one or both perceives the other as having such a plan), the coordination of these episodes may involve, on occasion, appraisal of the relations between participants' social plans, although shared understanding of participants' goals is not a goal for either participant in these episodes.

Competitive plans are plans for the accomplishment of a goal before, or in spite of, another's plans for the accomplishment of the

same goal. Successful competition generally requires constructing and making use of a model of the competitor's plan. However, in competition a participant cannot assume, as she can in cooperation, that plans are shared, and thus competition, of the four episode types, may require construction of the most complex perspectives and the most ongoing use of perspective taking of the four episode types. (Cf. Bruce & Newman, 1978, and Newman, 1980, for their analyses of "interacting plans" in episodes of deception.)

"Social Plan" vs. "Script"

As described in Chapter III, a "script" is "a structure that describes appropriate sequences of events in a particular context" (Schank & Abelson, 1977). A social plan can be considered to be a category of script types -- any script that contains representations of the interacting goals of two or more persons engaged in a purposeful activity restricted to and completed within a particular setting. Thus a social plan represents (a) sequences containing social behaviors, (b) sequences containing rationally-organized, purposeful social actions, (c) motivated actions and interactions in particular everyday contexts which organize and support those actions and interactions. 'Script' is a far more general term.

There appears to be at least two kinds of social knowledge, and script refers ambiguously to either or both of them. There is knowledge of social events (what is done in a particular context) and social event sequences (in what order), and there is knowledge of the rational bases for those events, knowledge that enables persons to construct social plans. People do not necessarily know why a

particular behavior is appropriate and, indeed, there may often be no rational basis for it. The social plan/social episode model is an effort to outline how knowledge of the rational bases of social interactions contributes to social interactions. The model is not intended to represent the only form of knowledge that adults have, or should have.

The Function of Discourse in Social Episodes

Since language is a system of representation, it provides a means of representing states and events, including mental states and social relationships, which cannot be perceived as such and must be inferred from perceivable behaviors. Language can thus be used to represent social plans. Language is a means of communication, a means of conveying content (e.g. social plans) to another or for soliciting content from another. Linguistic communications therefore enable participants to recognize one another's 'perspectives', one another's interpretations of the ongoing episode. Language is a tool for social construction through discourse: participants in interactions co-establish public agreements about what is happening or what has been accomplished. Through discourse, participants can coordinate perspectives. However, 'everyone knows' that public agreements are distinct from private intentions and interpretations. What has been publically negotiated is likely to be different from what is separately understood. The problem of intersubjectivity is a fact of social life.

The relationship of talk to task depends in part on the nature of the episode goal. Are people gathered to bake bread? for group

therapy? to socialize? If the goal is to produce (or alter, or maintain) some physical state (e.g. build a house, bake bread), then talk usually functions primarily to enable goal completion. Participants request actions of one another, or inform one another of their intentions or progress, in order to get the work done. Hands do the work, and talk facilitates the coordination of labor. If the goal is to produce (or alter, or maintain) some psychological state (e.g. therapy, or a lecture), talk also functions to enable goal completion, although now talk (not hands) does the work, and the episode consists almost entirely of talk and other nonverbal means of communication. Completion of the goal can be determined only through talk (i.e. therapist inquires of her patient's mental state or professor inquires of his students' understanding) or some arbitrary external criterion such as time. If the goal is to produce (or alter, or maintain) some social state (e.g. a party, a wedding), then talk actually constitutes the episode goal itself. Talk does the work and is the work.

In the co-construction of a social episode, talk is used to reach agreements on a social plan (i.e. the public version of a social plan), to facilitate ongoing coordination of the episode, and to reach agreements on the completion of the episode. Social episodes often contain recognizable phases corresponding to initial planning, accomplishment and goal completion, and closing. The internal organization of an episode differs for cooperative, complementary, and competitive episodes. In a complementary episode, there is a brief arrangement when the getter issues her request to the gettee (as when the boss in an instrumental episode requests that the secretary take dictation) and a brief finish when the getter indicates satisfaction

with the work requested. In a competitive episode, the function of the arrangement is to agree on rules for the game, and, if a team competition, team huddles to plan strategy. Arrangement may be just a handshake representing agreement to follow the rules. During play, there may be disputes over rule violation, and, if a team competition, team huddles to revise strategy. The finish is typically but a brief congratulatory acknowledgment from the loser to the winner. In cooperative arrangement negotiations, the goals of each participant are to determine the other's plan for the activity, to ensure that the other is informed of his own plan, and to achieve jointly a collaborative compromise in the construction of a joint plan, thereafter believed to be shared until unexpected discrepancies and conflicts indicate otherwise. In the course of accomplishing the task, if participants discover that their interpretations of their ostensibly joint plan differ or that their planning was incomplete, social planning resumes, although not necessarily at the highest level of the plan. Thus the functions of discourse in cooperation include: in the arrangements, joint planning; in the accomplishment of the task, additional planning, instruction, and reminder to organize the accomplishment of local goals, and assertions of intent and descriptions of current or completed work (which may be initiated or solicited) to keep one another informed of task progress.

Perspective Taking in Social Episodes

In this analysis of the cognitive demands of interactions, the emphasis is upon the need of participants in social episodes to represent other participants' social plans. 'Perspective-taking' thus

refers here to the representation and coordination of perspectives with particular (and particularly complex) contents.

Cooperative Role Play

There are two levels of organization in cooperative role play episodes: the higher, 'real' cooperative level (as described above) and the embedded, pretend level whose role relations are determined by what is being portrayed. These levels are depicted in Figure 1.

Interactive role play requires the cooperative establishment and maintenance of agreement among participants (and, where applicable, among players and observers) concerning the non-literal identities of setting, roles, and objects and the non-literal meanings of actions and utterances. In the model used in the present research, the critical components of the fantasy social episode -- setting, object, and participant role identities -- as well as fantasy actions and discourse are publically preplanned outside the fantasy in the arrangement phase of the cooperative episode, and the fantasy then enacted.[2] If problems arise during the play, the fantasy 'frame' is

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[2] In that the model is a representation of a social preplanning of a complete fantasy episode, it is a representation of the rational aspects of interactive role play and not a representation of the ongoing spontaneous nature of play. It is recognized that a high level goal of participants in role play may be playfulness, the creative modification of the planned scenario or the ongoing creation of the scenario all for the fun of it and even if the resulting production is less than fully coherent. In a context of playfulness, it may well be that only certain identities, actions and utterances in some way considered defining and critical are ever explicitly prearranged, and even then these plans may be ignored or abandoned if what later happens proves to be more fun. Perhaps neither coherence of portrayal or maintenance of fantasy frame are goals for persons at play. Framing may thus not be a local event at the initiation of the pretend scenario but an ongoing process of creating marginally, locally coherent non-literality. Perhaps even successful role play by

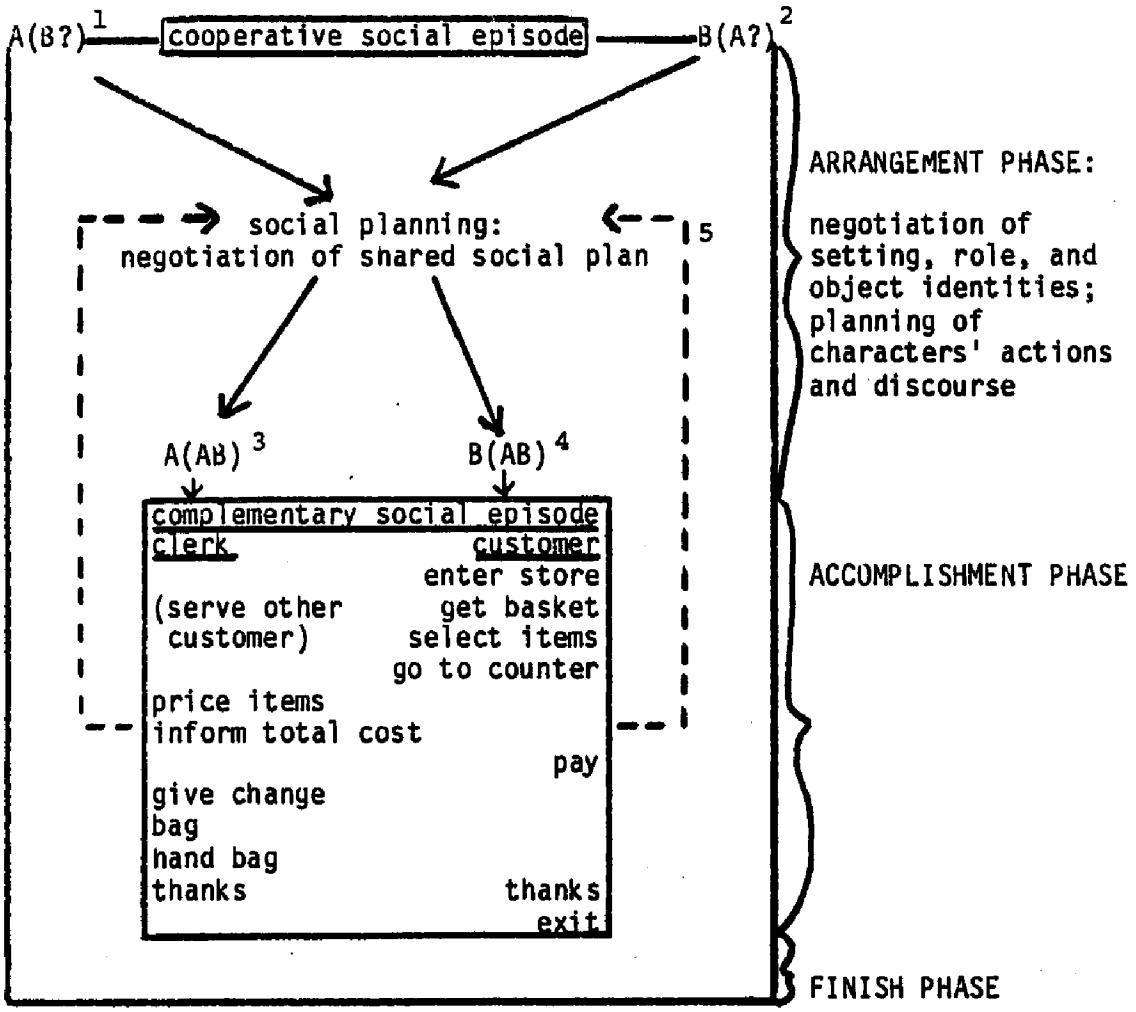

Figure 1. An illustrative cooperative role play episode: The portrayal of a complementary episode of grocery store shopping.

1 A(B?) A has constructed a social plan; she does not know B's plan, and she recognizes the need to ascertain B's plan and to negotiate a shared plan prior to initiating role play.

2 B(A?) The complement of A(B?).

3 A(AB) A's interpretation of their shared social plan.

4 B(AB) B's interpretation of their shared social plan.

5 ---> Resumption of negotiations when problems arise in the course of role play.

broken, and negotiations resume. The fantasy is itself a social episode, embedded within the 'real' cooperative episode. The nature of the sequential organization of the embedded episode depends upon its role relations. For example, if a cooperative episode were being portrayed, then the characters would be portrayed as first arranging their cooperative task and then carrying it out. Most portrayals in young children's play are of complementary roles. If complementary interactions are being portrayed, then just certain critical and defining interactions may be portrayed: the 'doctor' treats the 'patient,' the 'mommy' feeds the 'baby,' the 'clerk' bags the 'customer's' foods. However, the scenario is more richly and validly portrayed if each participant initially pursues her own independent course of action before she interacts with her complement. The 'mommy' cooks while the 'baby' plays; when the baby gets hungry, he expresses a need to the mommy, and interaction begins. The 'clerk' stocks shelves and tends to other customers, while a new customer reads her shopping list, comes to the store, takes a basket, and begins selecting items; when this customer needs assistance or is ready to have the items priced, interaction begins. This model of collaborative role play may exaggerate the extent of preplanning (see Figure 1). As previously discussed, participants in everyday social episodes commonly assume that plans and beliefs are shared. The everyday context of the immediate activity supports a participant's reasonable assumption that co-participants share the same everyday plans and beliefs about their joint activity. When role play occurs

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adults' judgments consists of overlapping consistencies at lower levels with a maintenance just of basic role identities.

in miniaturized settings stocked with miniature objects and costumes, these should support interactions much as the 'real' referent context would. When role play occurs in ambiguous settings, participants may appropriately believe that object identities, actions, and utterances are implied by their higher-level arrangements, and therefore these do not have to be explicitly negotiated. Once the name of the context is agreed upon, 'everybody knows' what goes on (in a "hospital," in the "store," in a "kitchen"). A critical problem for developmental investigation is to determine when beliefs that co-participants share social plans indicate egocentrism and when they indicate efficient common sense regarding shared cultural knowledge, 'what everybody knows.'

The Development of Collaborative Role Play

The model of cooperation presented above is essentially that of Piaget's "collaboration in abstract thought," in that cooperation is considered to require the representation and coordination of co-participants' plans and beliefs. His analysis of the development of collaboration provides the basis for the present investigation of the development of collaborative role play. This Piagetian model is outlined in Table 2.

As described in Chapter II, for Piaget the development of collaboration proceeds through four stages: monologue, collective monologue, collaboration in non-abstract thought, collaboration in abstract thought. These stages correspond to emerging capacities to represent others' intentions and beliefs and to coordinate these representations effectively in the accomplishment of a joint activity.

Table 2

A Piagetian Model of the Development of Interactive Role Play

Domain of competence	Stage: Collective monologue: Collections	Collaboration in non-abstract thought: Role playing social events	Collaboration in abstract thought: Role playing social episodes
Collaborating	Absence of negotiated agreements on plans for play and pretense	Absence of negotiated agreements on plans for play and pretense	Negotiated agreements on plans for play and pretense
Framing	Absence of communicative efforts to frame interactive pretense	Absence of communicative efforts to frame interactive pretense	Negotiated frames of pretense
Portraying	Absence of apparent character goals	Absence of apparent character goals	Characters portrayed as motivated by goals; thus, evidence of social plan knowledge
Social event knowledge	Apparent lack of social event knowledge:	Evidence of social event knowledge:	Evidence of social event knowledge:
	Overlapping, shifting themes and identities;	Coherently maintained themes and identities;	Coherently maintained themes and identities;
	Undifferentiated roles;	Differentiated roles;	Differentiated roles;
	Lack of sequentially organized activity or social interaction	Sequentially organized episodes	Sequentially organized episodes
Support of play context necessary?	Supportive context facilitates only brief, unpredictable role play interactions	Supportive context facilitates length and complexity of interactive role play	Supportive context is not necessary, since it can be co-established symbolically

In monologue, the "child talks to himself." This initial stage in Piaget's developmental sequence appears to be invalid. There is recent evidence that solitary play is not a precursor to social play but a different context for play (Moore, Everston, & Brophy, 1974; Roper & Hinde, 1978; Rubin, 1977; Smith, 1978).

In collective monologue, Piaget's next stage, a child associates his actions with others' nearby activities, but he makes little effort to ensure that the others understand him nor to attend to others' talk. Analogous interactive role play 'collections' are therefore disorganized. Children at this stage are not negotiating agreements on plans for play, nor are they co-constructing pretense frames. Differentiation of roles, appropriate sequencing of portrayed actions, and consistency of portrayal are absent or unpredictable, since children at this 'stage' not only lack knowledge of person's goals, but they also lack knowledge of context-appropriate social event sequences. Although reports of children's role play to date have not included descriptions of such disorganized interactions, studies of children's stories, script knowledge, and solitary doll play indicate early inabilities to sustain a portrayal of coherently coordinated roles consistent with this model of role play 'collections.'

In collaboration in non-abstract thought, Piaget's third stage (the second stage in this model), children participate together in an activity, and their talk is concerned with accomplishing it. However, there is an absence of "explanation of a past or future action" (Piaget, 1926/1955). Children lack the capacity to represent non-present states, including the mental states of their play partners. Thus in interactive role play, children at this stage are not

negotiating agreements or communicatively framing interactive pretense, since they do not recognize the need for communication and collaborative agreement. Similarly, their characters are not portrayed as pursuing a motivated course of action, since the role players are unable to represent their characters' intentions. Children could be successful at such role play of social events and activities if they shared social event knowledge and if portrayal of the event were supported in the play context. Successful interactive role play would then not require either representation and coordination of partners' perspectives or representation of their characters' goals. Stereotyped sequences of coordinated role behaviors, such as the ritual interactive role play sequences described by Garvey and Berndt (1977) (including "Mommy and baby" interactions purported to demonstrate perspective-taking) are consistent with this stage description.

Collaboration in abstract thought, Piaget's last stage, is possible when a child can represent states and intentions which are not present: when he can plan, reconstruct, explain. Participants in interactive role play can then collaborate on joint plans and co-establish symbolic states of pretense, dialogic and representational competences which permit them to co-construct role play even in a thematically ambiguous play context. Characters are then portrayed as motivated by goals, and characters' interactions as motivated by interacting goals. The knowledge of social episodes which enables these role play interactions can now be described as social plan knowledge. The reports of preschoolers' communicative efforts in jointly planning and arranging their role play may fit this stage

description.

Whether the course of development of children's role play resembles this model is the question for the present research.

CHAPTER V

PURPOSE AND DESIGN OF RESEARCH

The purpose of the present research was to to develop an analytic approach to the developmental study of children's interactive role play. The emphasis in the work was on detailed descriptions of videotaped role play. Codings of observed interactions were used as bases for inference regarding underlying social knowledge, and age comparisons in interactions were used to infer the course and mechanisms of development. The goal was to produce a set of methods which, when eventually applied to a larger data base, could produce observational data needed to help resolve existing inconsistencies in the literature regarding the developmental course of preschool children's social cognitive and interactive competences and needed to reveal the function of interactive role play in social development.

Since the primary goal of the project was to develop methods, the data base collected was kept small. Although the developmental model of interactive role play just presented in Chapter IV could not be tested with the available data, the methods produced were intended to enable the testing of this model in the future with an expanded data base.

Research Design

Background

The variables selected for examination were (1) experience with a

particular partner in the play context and (2) age.

Since young children typically, on their own initiative, pursue a play theme many times with the same friends, it was judged important to document age differences in children's abilities to adjust their communicative strategies for play over the history of role playing a theme with a particular partner. Young children also initiate an old play theme with different playmates, and it was assumed that the need for collaborative agreements increases when a child plays with a new partner (even if she is otherwise a familiar peer). To examine the effects of play experience with a particular partner, role play interactions were compared in three contexts requiring adjustments in interactive work: (a) when the play theme was novel to play partners, (b) when the play theme had become a familiar play theme for a partner pair after repeated play experiences together, (c) when partners were then re-matched with different partners.

Age, of course, has been a traditional index of general developmental factors. Cross-sectional comparisons of the role play interactions of dyads at 3 different ages were used as a basis for inference regarding the course of development of role play. The ages selected (3 1/2, 5 1/2, 6 1/4) correspond to the age groups most often compared across the preschool age range in studies of peer interaction.

For clarity of analysis, other possible sources of between-subject variation such as sex differences (Greif, 1976; Jacklin & Maccoby, 1978; Matthews, 1978), subcultural and SES differences (Eiferman, 1971; Feitelson, 1976; Freyberg, 1973; Griffing, 1980; Rosen, 1974; Rubin, Maioni & Hornung, 1976; Sutton-Smith & Heath,

1981; Udwin & Shmukler, 1981), and peer experience (Howes, 1980; Lieberman, 1977; Mallay, 1935; Rubin & Krasnor, 1981), were not considered. All subjects were girls; all were from white, middle-class families; all had considerable experience in play groups and preschools. Other possible sources of within-subject variation such as familiarity of peer (Doyle, Connolly, & Rivest, 1980; Matthews, 1977), environmental support for play content (Elder & Pedersen, 1978; Getz, 1981). familiarity of referent content for play (e.g. for 'playing store,' the play theme used in the present study, familiarity with grocery store shopping) and familiarity of play content per se (e.g. familiarity with playing store) were not considered. All subjects were familiar to one another as playmates and/or schoolmates; children played in a richly supplied, miniaturized grocery store play setting; all subjects were familiar, at least as observers, with grocery store shopping; for all subjects role playing grocery store was novel (as reported by parents and teachers).

Design

The design of the study can be seen in Table 3. The variables examined were age (3 1/2, 5 1/2, 6 1/4) and familiarity of partner (session 1, session 2, session 3). (Note that, for any analysis of interactions for which the 'subject' was the partner pair, repeated measures could be examined only from session 1 to 2; the composition of play pairs changed from sessions 2 to 3.) Within an age group, subjects were paired with the partner closest in age. In session 1, play partners were introduced together to a novel setting, a grocery store, and instructed to "have fun playing store." In session 2, the

Table 3. Design

Age	Session 1	Session 2	Session 3
	ab	ab	ad
3 1/2	cd	cd	be
	ef	ef	cf
5 1/2	gh	gh	gi
	ij	ij	hj
6 1/2	kl	kl	km
	mn	mn	ln

same partners played store together again. In session 3, play partners were re-paired within an age group, and these new partners played store together (for the third time in that setting but the first time with that partner). All sessions were approximately 15 minutes in length.

Data analyses consisted of detailed descriptions of the role play interactions observed in each session. The goals were to construct a reliable and meaningful set of methods for (a) describing age and session differences in critical domains of interactive role play competence -- negotiating agreements, framing pretense, and portraying motivated persons in social episodes -- and (b) inferring age differences in script knowledge which might enable certain kinds of interactive role play. Coding schemes which proved not to be reliable or whose reliability could not be tested because relevant data were too scarce are not presented in this report unless the motivation for the scheme was considered an important piece of the project. Quantitative results from application of schemes which were reliable are reported, but just as one source of evidence that the method which produced the results is adequately motivated and produces meaningful data. Given the small sample size, however, neither 'findings' of statistical significance nor absence of such can be assigned much importance. Analyses of examples representing coding categories are also used to provide support for the methods developed.

CHAPTER VI

METHODS

Subjects

Subjects were all girls from middle class, English-speaking white families. There were three age groups, 3 1/2, 5 1/2, and 6-year-olds, and 6 children in the youngest group and 4 in each of the older groups. Within an age group, all girls were familiar to one another as schoolmates and/or playmates.

Procedures

Materials and Equipment

The fantasy setting contained a commericial child-size toy store made of colorfully illustrated cardboard and consisting of a counter, cash register, wall phone, and shelves both inside and outside. In addition, 2 small paper bags were available on the counter, and miniature foods, a small wicker shopping basket, and an additional phone were placed on a board propped on a chair near the cardboard store. Among the miniature foods were a few plain colored blocks of several shapes which were comparable to the foods in size. Before each session, toy foods were arranged in casual groups of cans, boxes, plastic vegetables, plastic dairy items, and blocks, to suggest categories for items.

The setting was located in a laboratory playroom equipped with one way mirrors and a video camera mounted in one corner of the room

which could be adjusted for direction and angle by remote control.

Instructions

Subjects received no instructions other than to "have fun playing store." Their parents were previously informed of the purpose of the study of the videotaping procedures, and most parents had informed their children either that E was interested in how children play or that E was recording their play or both. On some occasions, then, there was interference in subjects' play as a result of their knowing, or realizing, that they were being taped: subjects might play in whispers, hide under tables, play to the camera, sing for the microphone. There were other periods in which children simply played at something other than store or conversed. The experimenter intervened to encourage store play when pairs had either not initiated store play or had drifted from store play more than a minute or two. The result was that the contexts for store play across dyads and across sessions differed somewhat: many dyads anticipated store play with excitement and had a great deal of fun at store play; some dyads sometimes played store less enthusiastically, as a peculiar obligation to E.

Data

Completed sessions were approximately 15 minutes long, although not all of that time was necessarily devoted to store play.

Only store play data are considered in this study. Criteria were established for admission of data as store play, and breaks in continuity of store play were noted and briefly described on the

transcripts. Store play data were defined as preparing, accomplishing, or finishing up/cleaning up/rearranging either social or solitary store play, where store play is the fantasy portrayal of store scenes, store activities, and persons engaged in store activities. In unclear cases, contrasts with clear cases of store play and clear cases of not store play were necessary. Breaks could be generally attributed to: one or both subjects going to the bathroom, intrusion by someone into the laboratory room, exploration of play setting and/or room (not instrumental to later play), change or drift to another fantasy, idle conversation, playing to the camera or to the microphone. Examples of most unclear cases (nevertheless judged as not store play) were explorations of and conversations about the store setting ("Look at this lobster here") and role play of home activities involving food -- for example, preparation of dinner following the prior trip to the store. Table 36 in Appendix 1 contains the size of the data base for each pair of subjects in each session.

Transcription

All admissible data were transcribed. Utterances were transcribed by adapting conventional orthographic devices to represent paralinguistic features such as pauses(,), stress (___) and prosody (. ? !). Loudness was not considered important and was thus not represented systematically. Utterances are defined primarily in terms of grammatical form, consistent with procedures for discourse act codings (see Appendix 2). The present system is, in general, inadequate as a representation of paralinguistic features of

discourse. It is instead suited to the biases in the discourse act coding scheme toward coding of propositions (Dore, 1977; Dore, Gearhart & Newman, 1978).

The following were the conventions used for transcription of discourse:

.	end of utterance with falling intonation
?	end of utterance with rising intonation
!	end of utterance uttered with intensity, sharpness, excitement
,	slight pause and/or drop in pitch or loudness within an utterance
-	stutters
--	self-interruption, a break in an utterance without a drop in pitch or loudness
_____	portion of utterance stressed
( )	speech audible but uninterpretable
(want)	uncertain transcription
some [food	
[No!	overlap; next speaker's turn begins before the prior speaker's turn ends
some=	
=No!	almost an overlap; absence of normal turn-taking rhythm

Actions and physical states were transcribed in detail. There were no conventions pre-established. A great deal of editing, addition and revision was necessary before transcriptions of actions and physical states were considered satisfactory as representations of

store play.

Coding

Coding was done from transcripts with periodic reviewing of videotape for problematic cases. This procedure worked only because all videotapes had either been previously transcribed and/or extensively edited by the coder.

Reliability

All coding was done by the author, with reliabilities established with another coder on 15% of the data base. Any scheme not found to be reliable was eliminated as a basis for quantitative analysis. Reliabilities for schemes retained were determined by percent agreement and ranged from 80% to 97% with a mean of 86%.

Data Analyses

Because the primary purpose of the project was to develop methods, the coding methods are described within results chapters VII, VIII, IX, and X. Should the reader desire additional details of the coding procedures, s/he is referred within each results chapter to the relevant appendix.

Although it was not the goal of this project to test hypotheses, nonparametric tests of significance were computed for all quantitative results. Because the appropriate tests for small samples use ranks of scores, the median was used as a description of central tendency. Age comparisons were examined within each session using Kruskal-Wallis one-way analysis of variance by ranks (Siegel, 1956). Significant

results were followed with Fisher exact probability tests (median test) between pairs of age groups (3-year-olds vs. 5-year-olds, 5-year-olds vs. 6-year-olds, 3-year-olds vs. 6-year-olds). Session comparisons were examined with the Friedman two-way analysis of variance by ranks. Usually the unit of analysis was the dyad, and therefore only changes from sessions 1 to 2 could be tested, since dyad composition changed in session 3. When the unit was each child, then a finding of significant difference among the 3 sessions was followed by Wilcoxen signed ranks tests between pairs of sessions (1 vs. 2, 2 vs. 3, 1 vs. 3).

Some of the results presented in Chapters VII, VIII, IX, and X were presented previously in a different form (Gearhart 1978, 1979, 1980, 1981).

CHAPTER VII

COLLABORATING IN THE ARRANGEMENT AND ACCOMPLISHMENT OF A JOINT ACTIVITY

The goals of the analyses developed for this chapter were to examine preschoolers' developing competences at collaborating in the arrangement and accomplishment of a joint activity. Analyses specific to the joint activity of interactive role play are not reported here. Instead, the content of subjects' role play task was methodologically ignored, in order to develop and apply methods that could potentially be used to investigate collaborative competences across task contexts.

The endpoint model of collaboration presented in Chapter IV represents social plan negotiations first in an arrangement phase and then, as needed, recurrent throughout the social episode (see Figure 1). In collaborative arrangement negotiations, the goals of each participant are to determine the other's plan for the activity, to ensure that the other is informed of his own plan, and to achieve jointly a collaborative compromise in the construction of a joint plan, thereafter believed to be shared until unexpected discrepancies and conflicts indicate otherwise. In the course of accomplishing the task, if participants discover that their interpretations of their ostensibly joint plan differ or that their planning was incomplete, social planning resumes, although not necessarily at the highest level of the plan. The functions of discourse in collaboration include: in the arrangements, joint planning; in the accomplishment of the task,

additional planning, instruction, and reminder to organize the accomplishment of local goals, and assertions of intent and descriptions of current or completed work (which may be initiated or solicited) to keep one another informed of task progress.

The analyses reported in this chapter were guided by a successively more focused series of questions.

1) Sociocentrism: In view of some remaining controversy regarding the extent of young children's social intent in peer interactions, it was important to establish as a base the 'sociocentrism' of these young subjects. Were subjects talking to one another, and did partners respond to one another's interactive initiations? Were subjects appropriately making a greater effort to initiate interaction and were they more responsive when play and partner were unfamiliar (session 1) and when partner was unfamiliar (session 3), than when partner and play had become familiar (session 2)?

2) Social episodes: What was the nature of the interactive contexts which subjects were constructing together? Could the interactions of these preschoolers be described in terms of the social episode analysis? If so, within social episodes, could arrangement, accomplish, and finish phases be identified? If not, what other kinds of social, or solitary, activity units were produced?

3) Collaboration in arrangements: During arrangement phases (those that occurred), how were social plans negotiated? -- Did both participants contribute, or was a plan imposed by one subject on her partner? -- Did subjects actively initiate negotiation by soliciting one another's input (through questions)? How open were questions to

partner's input? -- Were participants making communicative adjustments in their arrangements as their play became more familiar? That is, were they 'backgrounding' old agreements and 'foregrounding' new agreements? Were participants making appropriate communicative adjustments in their arrangements when partners were changed in session 3? 4) Collaboration in accomplishments How was accomplishment of the task negotiated? What were the contexts in which partners perceived a need to resume additional planning, to resolve misunderstandings? Did participants organize one another's activity with instructions and reminders? Did they keep one another informed of their intentions and of their task progress?

Table 4 contains an outline of the analyses undertaken and the results obtained. Since few age and session differences were significant upon statistical testing, Table 4 contains primarily apparent trends in the data. Discussion of these trends is offered as a basis for generating hypotheses to be tested in future research. Quantitative analyses bearing on some of the questions above were not successfully developed. For some questions, there were not enough clear cases of a particular data category to support category definition or to warrant quantitative analysis. For other questions, problems in establishing reliability resulted from the very complex task of grocery store role play. These methodological problems are discussed as appropriate, supplemented with qualitative analyses of examples. Certain particularly problematic analyses are found in the appendix.

Table 4

Collaborating: Summary of Analyses and Results

Characteristics of subjects' interactions	Trends in data [a]		
	Age	Session	Age x session
Sociocentrism			
Interactive intent	—	1 > 2 *; 2 < 3 *	2 < 3 greatest for 6-year-olds
Interactive success	5-year-olds > * 3- or 6-year-olds	—	—
Social episodes			
Social vs. parallel/ solitary	Increase in social activity with age	—	For 3-year-olds, no parallel/ solitary in session 3
Completeness	Increase with age	2 < 1	For 6-year-olds, session 3 > 2
Episodes vs. collections	Increase in episodes with age	—	For 3-year-olds, no collections in session 3
Social episode organizations			
Arrangements:			
Frequency	Increase with age	—	For 3- and 5-year-olds, arrangements more frequent in sessions 1 and 3 than 2
Success	Increase with age?	—	—
Jointness	Increase with age	—	Increase in jointness for 6-year-olds only

[a] Any age or session effects found to be statistically significant are indicated with an asterisk (*).

Table 4, continued
Collaborating: Summary of Analyses and Results

Characteristics of subjects' interactions	Trends in data [a]		
	Age	Session	Age x session
Finishes:			
Frequency	(infrequent at all ages in all sessions)		
Arrangements			
Foregrounding and backgrounding:			
New Plans	Increase with age	(not relevant)	
New Arrangements	Increase with age	(not relevant)	
Initiated New Plans	Increase with age *	(not relevant)	
Provoked New Plans	5-year-olds < 3- & 6-year-olds	(not relevant)	
Initiated New Arrangements	5-year-olds < 3- & 6-year-olds	(not relevant)	
Provoked New Arrangements	Decrease with age *	(not relevant)	
Backgrounding: (= no. of contents in arrangements in each session)	—	1 > 2 (= backgrounding in session 2)	Greatest for 6-year-olds
Questions	(few subjects used any questions in arrangements)		

[a] Any age or session effects found to be statistically significant are indicated with an asterisk (*).

Table 4, continued
Collaborating: Summary of Analyses and Results

Characteristics of subjects' interactions	Trends in data [a]		
	Age	Session	Age x session
Accomplishments			
Requests for action	Decrease with age	—	—
Assertions	Increase with age	—	—
Questions	Increase in product questions with age	—	—

[a] Any age or session effects found to be statistically significant are indicated with an asterisk (*).

Interactive Intent and Interactive Success

Social intent was defined as the proportion of all discourse sequences which were interactive and not monologue. (See Appendix 2 for procedures for identifying discourse sequences.) Interactive intent was identified by discourse efforts to call the intended listener by name or seek her attention with an attention-getter (e.g. "Hey!) and/or actions such as looking at, approaching, touching, handing an object to the intended listener. Discourse initiations lacking any such verbal or nonverbal behaviors were coded monologue initiations. (See Appendix 2 for procedures for identifying discourse initiations.) Although interactive sequences are co-produced by a dyad, in this analysis the subject responsible for initiating an interactive sequence was assigned that sequence: the measure was the proportion of a subject's total discourse initiations judged interactive in intent, where interactive initiations are coded "I", non-interactive initiations are coded "I(m)" (monologue) and total initiations are I + I(m) (See Appendix 2). This measure is an index of the likelihood that a shift in discourse topic or in discourse act function will be made interactively rather than to the self. Interactive success was measured as the proportion of interactive initiations (I) which were followed by a complementary response (R) from the partner.

The data in Tables 5 and 6 show that, across age groups and sessions, these subjects were very active in seeking and securing communicative interactions in the course of interactive role play. There were no age differences in interactive intent in any session. There was some puzzling evidence that the 5-year-olds may have been

Table 5

Median Proportion of Discourse Initiations which were Interactive by Age and Session

	Session		
Age	1	2	3
3	.90	.80	.79
5	.86	.78	.79
6	.78	.73	.88

There are no effects of age in any session.

There is an effect of session ($\chi^2_r = 7.0$, $p < .05$).

Social intent declines in session 2 (session 1 vs. session 2, Wilcoxen, $p < .005$, one-tailed test).

Social intent increases in session 3 (session 2 vs. session 3, $p = .025$, one-tailed test).

Table 6

Median Proportion of Interactive Initiations which were Followed by a Response by Age and Session

	Session		
Age	1	2	3
3	.84	.79	.84
5	.91	.93	.91
6	.73	.78	.78

$p < .05$

There is an effect of age in session 2 only ($\chi^2_r = 7.4365$, $p < .05$). In session 2, 5-year-olds were more successful than either 3-year-olds (Fisher, $p = .05$) or 6-year-olds (Fisher, $p = .025$).

more successful in their initiations than either 3-year-olds or 6-year-olds, suggesting that the meaning of this measure may change with development. There was an effect of session. Subjects used talk interactively less frequently in session 2 than in session 1 and more frequently in session 3 than in session 2. The increase in session 3 was striking only for 6-year-olds, however, indicating that it was primarily 6-year-olds who interpreted session 3 as a context requiring greater interactive work. (The age x session interaction cannot be tested.) Thus most subjects were working harder at communicating with their partner when the role play was novel to both (session 1) and when re-partnered with someone new (session 3).

Social Episodes

In this section, the activity units which constituted the contexts for subjects' interactions (and which were reflexively constructed by those interactions) are described. More detailed descriptions of the kinds of role play activity units constructed by these preschoolers, as these are revealing of their representations of social episode organizations, are reported in Chapter IX.

In the endpoint analysis, a social episode was defined as a unit of social activity coordinated by a particular set of participants in a particular setting. At first glance, a 15 minute session would appear to be a social episode: two girls (the participants) agree to enter a laboratory playroom (the setting) in order to play store (the goals of their joint activity). However, that unit was one imposed by the investigator and not one spontaneously constructed by the subjects. It was important to discover what constituted a unit of

meaningful social activity for the participants. The focus of the analyses reported below, then, was on the units of activity (social or solitary) constructed by subjects within a session.[1]

Examination of videotapes revealed units of activity within each session which resembled social episodes. Dyads typically played store more than once. A cycle of one round of store play was considered a Complete Social Episode if, at its beginning, a 'customer' selected food and if, at its termination, these foods were bagged (or basketed) and/or carried out of the store setting. An Incomplete Episode ended prematurely, typically during the 'customer's' selection of food items. A Collection contained a chaotic array of behaviors, most of which were appropriate to a store context but lacked any recognizable sequential organization. (The incidence of these three activity types, as well as additional interactive organizations internal to these activity types, is especially revealing of children's concepts of motivated activity and social interaction and are presented and discussed in detail in Chapter IX.) Complete Episodes, Incomplete Episodes, and Collections could be either Social or Parallel/Solitary. A Social Episode was accomplished (though not necessarily arranged) by both participants. A Parallel/Solitary Episode was accomplished (though not necessarily arranged) by one participant, or by participants more or less separately, with at best only unpredictable interactive coordination. (Appendix 4 contains procedures for coding activity units.)

Table 7 contains the distribution of activity unit types by age

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[1] Appendix 3 contains observations of subjects' efforts to organize the session rather than each episode one-by-one.

Table 7

Median Proportion of Activity Types by Age and Session

(Dyad as Subject)

		Social activity			Parallel/solitary activity		
Session	Age	Complete episodes	Incomplete episodes	Collections	Complete episodes	Incomplete episodes	Collections
1	3	.73	.13	.00	.00	.00	.13
	5	1.00	.00	.00	.00	.00	.00
	6	1.00	.00	.00	.00	.00	.00
2	3	.50	.20	.00	.00	.00	.33
	5	.88	.12	.00	.00	.00	.00
	6	.50	.50	.00	.00	.00	.00
3	3	.60	.40	.00	.00	.00	.00
	5	.75	.25	.00	.00	.00	.00
	6	1.00	.00	.00	.00	.00	.00

and session. Complete social episodes were most frequent, although they were less often produced by 3-year-olds than older subjects. Complete social episodes were less frequent in session 2. Since experience playing with the same partner was expected to facilitate interactive success in session 2, this unexpected trend may indicate that instead subjects became more playful and less concerned with completion of role play episodes once they had successfully done so. in session 1. In session 3, only 6-year-olds returned to the high proportion of completed episodes which occurred in session 1. The 3-year-olds and 5-year-olds either showed little change from session 2 to 3 or decreased steadily from session 1 to 2 to 3 in the proportion of activity units which were complete social episodes (3-year-olds: .73, .50, .60; 5-year-olds: 1.00, .88, .75). Parallel or solitary activity (at this level of analysis) never occurred in the 5-year-old and 6-year-old data, but did occur in the 3-year-old data as parallel/solitary collections. The 3-year-olds produced more collections in session 2 than in session 1, consistent with the decline in session 2 in complete episodes for all subjects discussed above. The 3-year-olds produced no collections in session 3, evidence that they were making greater efforts with new partners to produce sequentially organized social episodes.

In sum, there was evidence of an increase with age in complete social episodes, and a complementary decrease with age in parallel/solitary activity and in collections. Complete social episodes were more frequent in session 1 than in session 2, indicating that subjects were interpreting a novel task to be done with a similarly inexperienced partner (i.e. session 1) as a context which

demands joint effort in completing the task; once having done so, subjects appeared to be less concerned with task completion. It was primarily 6-year-olds who returned to joint efforts at task completion in session 3. However, 3-year-olds were not producing parallel/solitary collections in session 3, so they too evidenced a concern with social accomplishment of the task with a new partner, even if they were less successful in doing so.

Activity Unit Phases

While overall episode structures could be similar, they could be produced by variable means. Accordingly, more detailed analyses of the process of episode construction were done.

Within activity units, activity phases were identified: Arrangements, Accomplishments, and Finishes. (See Appendix 5 for procedures for coding activity unit phases.) An Arrangement Phase is any series of discourse sequences (whether social or monologue in intent) and activities occurring prior to the initiation of the task and concerned with planning and preparing for critical components of the task. An Accomplishment Phase contains the activity which constituted doing the task. A Finish Phase follows completion of the task and contains comments on the finished task and/or efforts to return the setting to its initial state (cleaning up). (However, if subjects cleaned up in order to play again, or commented on prior play in order to plan their next play, these actions and interactions were considered Arrangements. See Appendix 5 for procedures for coding arrangements.)

Not all activity units contained an arrangement phase, and not

all arrangement phases were interactively successful. As a preliminary analysis of subjects' interactive efforts in arrangements, arrangement phases were coded as one of the following four categories: Joint (both participants contributed substantively to arrangement work); Directed (one partner directed the other, who complied); Problematic (participants either did not interact or argued without resolution or both); None (there was no arrangement). Note that joint arrangements are not necessarily collaborative arrangements. More detailed analyses of the structure of arrangement negotiations are reported later.

Table 8 contains the distribution of arrangement phase types by age and session. Absence of arrangements appeared to decrease with age. 6-year-olds never initiated play without an arrangement. Absence of arrangements was even more frequent in session 2 than in session 1 for 3- and 5-year-olds, evidence perhaps that these subjects no longer perceived a need to arrange a play theme played many times before with the same partner. In session 3, absence of arrangements was less frequent than in either sessions 1 or 2; in fact, in session 3, the 5-year-olds, like the 6-year-olds in all sessions, arranged every episode socially. Problematic arrangements appeared to decrease with age, except in session 3. Since children might be unable to reach agreement for reasons other than communicative skill, it is not surprising that the trend for this category is uneven. For all subjects, interactively successful arrangements (joint and directed) were more common than interactively problematic arrangements and no arrangements. There is a trend of an increase in joint arrangements with age. In session 3, 6-year-olds increased in frequency of joint

Table 8

Median Proportion of Arrangement Phase Types by Age and by Session (Dyad as Subject)

Session	Age	Arrangement phase type			
		Joint	Directed	Problematic	None
1	3	.04	.40	.11	.22
	5	.50	.33	.00	.17
	6	.33	.67	.00	.00
2	3	.33	.07	.33	.27
	5	.38	.25	.00	.38
	6	.33	.67	.00	.00
3	3	.13	.40	.20	.17
	5	.25	.75	.00	.00
	6	.50	.25	.25	.00

arrangements over both sessions 1 and 2, while 3-year-olds and 5-year-olds decreased.

In summary, subjects usually arranged their play socially, but older subjects did so more often than younger subjects. The younger subjects were more likely to arrange socially when play and partner were new (session 1) and when the partner was changed (session 3) than when play and partner had become familiar (session 2). Jointness of arrangements appeared to increase with age, although it was primarily the oldest subjects who increased their joint efforts when the partner was changed (session 3).

In sessions 1 and 2 combined, every dyad except 1 3-year-old dyad produced at least one reasonably well-formed (at this level of analysis) jointly arranged, complete social episode. (The remaining dyad produced 1 well-formed, complete social episode following arrangement directed by one partner.) Virtually all subjects, then, appeared capable of socially arranging and accomplishing this task.

It was expected that finish phases would be infrequent, in that the work of completing one episode would be integrated with the work of rearranging the task for the next cycle. Indeed, there were only two episode finish phases:

(A) G, 66 mos; H, 68 mos: Session 1, Episode 2 finish

G	See? That's now you play the storekeeper!	G is returning money to register. (There is an interlude before they decide to play again.)

(B) G, 66 mos; H, 68 mos: Session 2, Episode 1 finish

G	Very good! ( ) play money.	G returns money to register. (There is an interlude before

they decide to play again.)

Finish phases can be contexts in which the task is discussed and agreement is reached on its completion. Given most subjects' eagerness to get on with the next round of store play, there is no evidence that the absence of reflective finish phases after most rounds can be taken as evidence of subjects' inability to reflect.

Arrangements: More Detailed Examinations

The data in Table 8 indicate that most episodes were arranged, and most arrangements were interactively coordinated and successful. In this section, more detailed analyses of subjects' arrangement efforts are reported.

Foregrounding and Backgrounding in Arrangements

If participants are being socially planful in their episode episode arrangements, then they will adjust their communications as they come to share beliefs and plans concerning their common tasks regardless of the level of complexity: communications about previously made and kept agreements will decrease (backgrounding), and new communications will be concerned with modifications on earlier agreements or new ideas (foregrounding).

Foregrounding. Analyses were constructed to reveal evidence of foregrounding and backgrounding in arrangement phases. In each arrangement phase, 'things-that-got-done' were identified (see Arrangement Content Categories, Appendix 6)[2] and then coded as one of

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[2] A content analysis of arrangements is found in Chapter VIII, Table 22.

several foregrounding and backgrounding categories. (See Appendix 7 for procedures for coding foregrounding.) The coding process entailed a comparison of the contents of any given arrangement to all prior activity: Had partners negotiated such an arrangement before? If not, had they ever produced play consistent with such an arrangement before? Sessions 1 and 2 were combined under the assumption that partners will continue to make adjustments to their listeners across two successive days of repeated play with the same partner.

Foregrounding categories include negotiation of New Plans and negotiation of New Arrangements. New Plans are negotiations of play (role, setting, or object identities, or plans for action or talk) which have never been either discussed or done before. New Arrangements are negotiations of components of play which have appeared in prior play but have not so far been explicitly arranged. For example, a customer may have pretended that she brought her basket from home (i.e. that the basket was hers and not the store's) but had never, until now, explicitly established ownership (e.g. "This'll be my basket") in an arrangement phase. Thus New Arrangements are planfully 'brought forward' from a prior accomplishment phase to a subsequent rearrangement).

The data in Table 9 indicate that all dyads introduced new plans into their arrangements and to re-arrange more planfully by rearranging ahead of time what had, up to then, only occurred in the accomplishment phase. There is a trend indicating that the arrangements of 6-year-olds were more likely to contain New Plans and

Table 9

Median Proportion of Arrangement Contents which were New Plans, New Arrangements, and Total, by Age (Dyad as Subject)

	Foregrounding		
Age	New Plans	New Arrangements	Total
3	.22	.53	.77
5	.25	.50	.75
6	.48	.32	.80

less likely to contain New Arrangements. Thus 6-year-olds appeared to be more flexible in their plans for play than younger subjects.

In a secondary analysis, arrangement contents introduced in a responsive effort to resolve a conflict were recoded as "provoked" arrangement contents, and these were distinguished from "initiated" (spontaneous) arrangement contents. It was assumed that initiated arrangements are better evidence of subjects' planful arrangement intentions.

The data in Table 10 reveal that an arrangement for a 3-year-old, when compared with an arrangement of an older subject, was less likely to be an Initiated New Plan and more likely to be a Provoked New Arrangement. Thus older subjects are more likely than younger subjects to initiate new ideas for play in an arrangement and less likely to foreground new arrangements in contexts of conflict. There was a trend indicating that an arrangement for a 5-year-old when compared to either 3- or 6-year-olds was less likely to be a Provoked New Plan and more likely to be an Initiated New Arrangement. This pattern is difficult to interpret. The data may indicate primarily that the 5-year-olds were seldom in conflict in arrangements (see Total Provoked Arrangements: 3-year-olds, .33; 5-year-olds, .05; 6-year-olds, .16).

Further discussion of the foregrounding data follows presentation of backgrounding data.

Backgrounding. Backgrounding was examined as a decrease in session 2 as compared to session 1 in the number of different content categories appearing in the arrangements of each dyad. A decrease in range of contents arranged was used to indicate that partners were

Table 10

Median Proportion of New Plans and New Arrangements which were either Initiated or Provoked by Age (Dyad as Subject)

	New Plans		New Arrangements		Total	
Age	Initiated	Provoked	Initiated	Provoked	Initiated	Provoked
3	.12	.11	.31	.22	.43	.33
5	.25	.00	.45	.05	.70	.05
6	.38	.10	.26	.06	.64	.16

There were effects for age for Initiated New Plans ($H = 5.3372$, $p = .029$; 3-year-olds < 5-year-olds & 6-year-olds, $p = .05$), for Provoked New Arrangements ($H = 4.5569$, $p < .067$; 3-year-olds < 5-year-olds & 6-year-olds, $p = .05$), and for Initiated Total ($H = 4.6085$, $p < .067$; 3-year-olds < 5-year-olds & 6-year-olds, $p = .05$).

doing less work in their arrangements once partner and play became more familiar in session 2.

The results in Table 11 reveal that subjects were appropriately doing less arrangement work in session 2 when play and partner had become more familiar. This effect appeared to be greater for the 6-year-olds. Although the change from session 2 to session 3 cannot be tested, the data do not indicate that participants were increasing the diversity of their arrangement efforts in session 3.

Summary: Foregrounding and backgrounding. Across sessions 1 and 2, virtually all subjects were observed to plan ahead of time, in an arrangement, what had up until then been done without arrangement planning. Virtually all subjects appropriately reduced their communicative efforts in session 2 arrangements, when play and partner had become more familiar. This effect was greater for 6-year-olds than younger subjects. However, subjects were not increasing their arrangement efforts with a new partner in session 3. Older subjects were more likely to initiate new plans in their episode arrangements. Older subjects appeared to be more flexible in their approach to repeated accomplishment of ostensibly the 'same' task (at least where the task is role play).

Questions in Arrangements

If participants are collaborating, they will arrange their joint activity by comparing plans and constructing an agreeable compromise. If any participant actively solicits her partner's input (regarding any component of the plan), the existence of her question is evidence of her intent to ascertain her partner's intentions. Examined was the

Table 11

Median Number of Arrangement Categories by Age and by Session (Dyad as Subject)

	Session		
Age	1	2	3
3	6.0	4.0	5.0
5	5.5	3.5	3.5
6	8.0	4.0	4.0

There was an effect for session: all dyads arranged fewer task components in session 2 than in session 1 (Wilcoxen, $p < .01$, one-tailed test). (The change for sessions 2 to 3 cannot be tested, since dyad composition changed.)

incidence of Product ("What ..."), Choice, and Tag questions (Choice questions which follow a request or assertion and function to solicit compliance or agreement -- e.g. "..., okay?"). (See Appendix 2 for discourse act types.) These three categories represent successively lesser opportunities for the respondent to contribute to negotiations.

There were too few questions used in arrangements to warrant quantitative analysis. Of the 14 subjects, only 8 ever asked any question in an arrangement. More subjects asked questions in session 1 arrangements (8 subjects total) than in either session 2 (4 subjects) or 3 (3 subjects) arrangements. The absence of questions in session 3 indicates that most subjects were not interpreting session 3 as a context in which soliciting the unfamiliar partner's input is an effective means of constructing a shared plan. The overall infrequency of question use indicates that subjects were making infrequent or no effort to collaborate.

The Structure and Complexity of Successful Arrangement Negotiations

According to the social episode analysis (see Figure 1), arrangements contain negotiations of a joint plan for the subsequent activity. Examination of arrangements in terms of this analysis requires consideration of (a) the interactive structure of partners' negotiations and (b) the comprehensiveness of the social plan being negotiated. A tentative coding scheme for arrangement negotiations was constructed in an effort to examine developmental differences in negotiation structures and in social plan complexity. Examples illustrating each category of arrangement negotiations negotiations can be found in Appendix 8.

The only 'finding' that resulted from efforts at category construction was that there was no arrangement which truly resembled the endpoint analysis of collaboration. Participants never compared one another's plans for the activity and negotiated a joint compromise. There were only two arrangement phases in any session which approximated comprehensive social plan negotiations. These arrangements were produced by 6-year-old dyad KM in session 3. Example (C) is one of these. As discussed below, KM's interactions do not, upon close analysis, constitute a valid exemplar of collaborative arrangement.

(C) K, 73 mos; M, 75 mos: Session 3, Episode 2

		.	M is returning foods
		.	used in Episode 1 to
		.	food board. K watches
(1)	M	I'll do the store lady five times.	and talks with her.
(2)	K	Is that what you and Nancy do?	Nancy was M's prior partner.
(3)	M	Yup.	(M appears to be
(4)	K	Who's the store lady five times?	lying: M and N always
(5)	M	Me.	took turns, although M requested four turns in session 2.
(6)	K	And how much is Nancy?	
(7)	M	Nancy is the, person who buys.	
(8)	K	All the time?	
(9)	M	Mhmmm. ( )	
(10)	K	Well at least give me one more turn okay?	
(11)	M	hunh?	
(12)	K	Give me one more turn. Let's not, only one more storelady and I'm the mommy, next time. You know what me and Lisa do?	Lisa was K's former partner.
(13)	M	What?	
(14)	K	We pretend that I buy the groceries, and then I bring them home.	
(15)	M	That's what I do I made (it). Me and Nancy make a house, and (then), she's the storelady and the next day I come to her house the house, to the store, and I say, "I would like something ( )	M is incorrect: M and N never played house (although M wanted to). M looks at K.

		thank you," and she I pu', she put all the food behind there, and then closed the bag, and that's what we do=	M points to store prop and back to K.
(16)	K	=Okay, let we'll do that okay? (You know) what me and Lisa do? [We	
(17)	M	[Wha'?	
(18)	K	I we go home, and I set the table and you're my Mommy (actually) [don't you wanna do that?	K runs off camera, probably to indicate the table K and L had used.
(19)	M	[No I wanna be the little baby.	
(20)	K	No you're ahhh!!! Babies can't work in the sto-ore!	K, in mock horror, sing-song.
(21)	M	Okay but after this --	
(22)	K	You're the mommy.	

Each partner describes her past play and thus, presumably, her social plan (her representation of an embedded episode of role play). However, it is not clear that M does so in order to construct a new, joint plan. Note, as evidence, that M does not close the negotiation after (16) ("We'll do that okay?") with a complementary, "Okay." Furthermore, M cannot accurately agree with K that she, like K, brings groceries home ("That's what I do," line 15). M's characterization of her previous play with N is inaccurate: M never did play house with N in sessions 1 and 2 (even if twice M did assert to N an intent to "go to Grammy's house" with her food once purchased, but then never did so). M's description of her play is essentially a description only of store play despite her references to "house". Thus (C) does not represent the collaborative construction of a joint plan from two differentiated plans. Since no other arrangement contained any interaction which approached the complexity of (C) (see Appendix 8), there is considerable evidence that the role play of these subjects was not collaboratively arranged.

Negotiating Accomplishment

As described previously, collaboration during the accomplishment of the task entails interactions serving several interactive goals.

Additional planning may be necessary if the original plan is discovered to be ineffective. Social planning and plan revision during the accomplishment phase should be amenable to the analyses of negotiation structure and plan complexity just outlined for arrangement phases, supplemented with a description of the contexts in which planning occurs. There is ongoing work necessary to the coordination of task accomplishment. Participants need to keep one another informed of their progress to assure that their efforts are consistent with their previous agreements. A participant may state her intent to do a particular (sub)task, describe her ongoing efforts, report on her progress. She may query her partner's intentions, current efforts, or progress. She may also tell or remind her partner what to do by issuing a directive.

Efforts to establish reliable methods for the analysis of accomplishment interactions were not successful. The interactive role play of grocery store episodes proved to be a very complex task for the study of task accomplishment. (1) In store play, as in any role play, talk can constitute the accomplishment of the task as well as enable the accomplishment of the task, and distinguishing between these functions in the examination of any particular discourse sequence was problematic. (2) The relationship between character roles, usually a complementary relation, may penetrate the ostensibly collaborative relation between players. In these data, for example, the child playing the clerk might object to her partner's suggestions

for shelf arrangement, or pricing and bagging procedures, arguing that she could do it her way because it was her turn at storekeeper. (3) Store episodes can be portrayed in more than one way (e.g. supermarket, delicatessan, country store), and, perhaps because the task was play, participants did not seem to feel obliged to be consistent in their enactments or particularly planful about any changes in the task. Accomplishment interactions such as "plan revision" and "reminding one's partner of prior agreements" were difficult to find. It could be that interactive role play, as play, is a very poor context for the examination of planful social accomplishment. Or it could be that the irrational character of young children's interactive play emerges as a consequence of their inability to be socially planful. Without comparisons of children's interactions across task contexts, no determination of children's capacities for social planfulness or of their interpretation of play as an acceptably nonrational context can be determined.

The Structure, Complexity, and Use of Successful Accomplishment Negotiations

The same tentative developmental categories applied to social planning in arrangements were applied to planning negotiations in accomplishments. (As outlined in Table 1, Chapter IV, "planning" is used to refer to the social organization of episode components -- role, setting, and object identities -- and of future actions and interactions, not to the local coordination of ongoing task accomplishment). Many requests for action (e.g. "put it up on the counter") and assertions of intent (e.g. "I'm going home and take a

walk"), when used to direct or announce the next step of the task, indeed planfully anticipate that step; however, the distinction between such local efforts at task coordination and planning of more distant, if not abstract, steps and components of the task is being made here.) Most planning negotiations served to arrange some component of the play that had not yet been arranged. Plan revision virtually never occurred: arrangements almost never contained detailed negotiations of play themes or procedures (see Content analyses of arrangements, Table 22, Chapter IX), and therefore arrangement agreements were never explicit enough that a "revision" was a possible event. Many agreements made in play negotiations were never used in subsequent play. Whether frequent disregard of agreements is uniquely characteristic of the play mode or is evidence of preschoolers' inability to integrate plans and activities cannot be determined from this data base alone.

The efforts to construct and apply the developmental categories of planning negotiation structures to arrangement negotiations produced no perfectly realized cases of collaborative negotiation. In contrast, there were several clear cases of collaborative negotiation of an episode subtask. It is interesting, however, that partners collaborated only when a conflict interfered with their play. Thus there was no evidence in any cases of coordinated-elaborative accomplishments that subjects had, as a goal, the goal of strategic, collaborative social planning. The ability to construct a plan together at a level of complexity less than a social plan per se was evident but not the recognition that such social planning can be effectively done prior to initiations of the (sub)task. (See Appendix

9 for examples of differences in the structure and complexity of accomplishment negotiations.)

In (D), a clear case of coordinated-elaborative negotiations, K and L negotiate a complex plan for a phone call. Following (D), K calls L precisely as K and L have agreed.

(D) K, 73 mos; L, 74 mos: Session 1, Episode 1

(1)	L	Okay. Now it's my turn.	L reaches across counter to return money she just received as change.
(2)	K	No I have to deliver this to you.	
(3)	L	Oh yeah, (okay). Pretend this was my house. "Oh yes (I do). Brring!" Now you're gonna call and say "oh I'm going to bring the stuff to you", okay? "Brrinngg!"	L walks off camera. K bends for bag under counter. L seems to be practicing the call she now requests. L turns to board phone. L hesitates to touch phone, looks at K. K picks up store phone. L picks up board phone.
(4)	K	"I'm gonna [bring the stuff--	
(5)	L	[NO! You can't do that, you gotta, here's what you gotta do. You gotta go, "d'ring, rring" I (noo), I do "rring ring" okay, and you say "hello? I'm gonna bring the stuff to you" okay?	L comes to counter and store phone. L picks up store phone and dials, looks at K. L hangs up store phone.
(6)	K	I do the ring-ring, uh	L walks back to board phone.
(7)	L	I do those [rings!	L has one hand on board phone,
(8)	K	[It's my phone.	the other on hip. K waggles phone receiver at L.
(9)	L	It's not, no it's not.	L shakes head. K waves hand over phone, in dialing gesture.
(10)	K	"Ding drring ding!"	K 'calls' L, into phone.
(11)	L	No I could do it like this. "Brrrrrrr" (Like that so I could, [( )I could do it.)	L holds board phone receiver. L puts receiver to ear.
(12)	K	["ndring dring"	K ignores L and repeats call.
(13)	L	Okay then I do it when I'm the storekeeper.	L drops phone to side, juts chin at K.
(14)	K	Okay.	

(Phone call commences....)

Local Coordination of Task Accomplishment

Analyses of subjects' interactive work in coordinating the accomplishment of their task became problematic when character dialogue 'within' the fantasy could not be reliably distinguished from the 'real' children's efforts to negotiate and coordinate their role play from 'outside' the fantasy. While the results of certain discourse analyses in the accomplishment phase are reported below, they are interpreted with caution. The results are ambiguous as evidence of discourse procedures children were using to coordinate their role play.

Interactive (i.e. not monologue) discourse sequences were coded for the primary intention revealed in the initiation (I) move. (See Appendix 2 for coding procedures). These codings of discourse sequence types reveal speaker's intentions for initiating dialogue with their partners. If the initiation move contains only one discourse act, then coding the move is straightforward: the initiation move is assigned the same intention as the discourse act (e.g. request for action, product question, assertion of intent). However, if the initiation move contains more than one discourse act, then the coder must judge which act constitutes the speaker's primary intent. To summarize the coding procedures (see Appendix 2), organizational devices (e.g. speaker selections such as "Mary?" or politeness markers such as "Please") are ignored in coding initiation move intent if there is any other substantive discourse act (a request or an assertion). If there is present any direct request for action,

the initiation move is coded as request for action. If there is present any indirect request for action but no direct request for action, the initiation move is coded indirect request for action. If there are no direct or indirect requests for action but there is a question, the initiation move is coded as a question (process, product, choice) move. If there are no requests of any kind but there is an assertion, the initiation move is coded as an assertive move.

The data in Table 12 indicate that requests for action, direct and indirect, were generally the most common sequence type. There was a trend indicating a decline in the frequency of requests for action with age. The trend is more apparent when direct and indirect requests for actions are combined (session 1: .54 (3-year-olds), .59 (5-year-olds), .42 (6-year-olds); session 2: .52, .62, .38; session 3: .66, .69, .42). These data may indicate that older subjects were somewnat less apt to impose egocentricallly their interpretation of the task on their partners. However, they may merely indicate that older subjects had greater knowledge of the task and were able to proceed appropriately through it with less need of directive support. Question sequences were less frequent than other requestive sequences and assertive sequences. The data in Table 13 indicate an increase with age in product questions, possible evidence that older subjects were more active than younger subjects in seeking their partner's input. The apparent increase in organizational sequences with age is in part an artifact of developmental changes in role portrayals. As presented in Chapter VIII (Tables 15 and 18) and Chapter IX (Table 28), older subjects were more likely to portray such events as character greetings, thanks, and farewells, events constituted by

Table 12

Median Proportion of Interactive Sequence Types in Accomplishments by Age and Session

Session	Age	Interactive sequence types						
		Requests	Indirect requests	Assertions	Questions	Permission requests	Expressives	Organization devices
1	3	.24	.24	.26	.11	.04	.00	.08
	5	.24	.30	.22	.08	.00	.04	.06
	6	.22	.20	.27	.15	.02	.02	.16
2	3	.31	.13	.22	.12	.05	.01	.01
	5	.28	.32	.24	.02	.00	.00	.16
	6	.20	.18	.20	.28	.00	.00	.16
3	3	.27	.30	.14	.15	.01	.00	.03
	5	.12	.49	.22	.11	.00	.00	.03
	6	.19	.26	.24	.13	.02	.01	.17

Table 13

Median Proportion of Interactive Question Sequence Types in Accomplishments by Age and Session

		Question sequence type		
Session	Age	Process	Product	Choice
1	3	.00	.00	.08
	5	.00	.06	.03
	6	.01	.07	.07
2	3	.00	.02	.08
	5	.00	.00	.02
	6	.00	.14	.11
3	3	.02	.04	.06
	5	.00	.08	.05
	6	.00	.06	.06

organizational sequences.

Examples of clear cases of discourse sequences which functioned to coordinate task accomplishment from 'outside' the fantasy can be found in Appendix 11.

Summary and Conclusions

In this chapter, methods for analyzing developmental differences in collaboration and results derived from these methods were reported. The analyses provided evidence that the activities of these preschoolers were socially organized in some ways similar to those of adults (based on the intuitive, a priori analysis of adults' social episodes presented in Chapter IV -- see Figure 1 and Table 1). But while the overall organization of episodes generally resembled adult episodes, the structure and complexity of their negotiations did not. These preschoolers were not collaborating in the co-construction of any plans as complex as a social plan. Only one 6-year-old dyad's arrangement contained an effort at comprehensive arrangement planning. Some of the 6-year-olds' accomplishments contained collaborative negotiation of subtasks; these arose, however, in the immediate context of coordinating subtask accomplishment, not in any methodical preplanning of that subtask. The bulk of interactions consisted of brief sequences intended to facilitate ongoing local accomplishments: subjects directed one another, informed one another of intentions to do the next action, reported on ongoing or just completed actions.

There was evidence that younger subject pairs were less able than older subjects to produce together a complete social episode. Younger subjects appeared to be less likely to produce social activity, less

likely to complete an episode, less likely to arrange their play together. Nevertheless, each 3-year-old pair (except for one pair in session 3) produced at least one complete social episode. Thus there is development across this age range, but, based at least on these initial measures, even the youngest subjects appear to share with adults certain representational and communicative competences necessary to the construction of social episodes. Further analyses of the construction of these episodes reported in Chapters IX and X will serve to clarify the course of development of social episode knowledge across the preschool age range.

Subjects generally recognized the need to work hard in communicating with a partner when partner and play were unfamiliar (session 1) and the appropriateness of reducing their efforts when play and partner had become familiar (session 2). In session 2, subjects were less likely to initiate discourse to their partner and planned fewer components of the task in the arrangement phase; these effects were most striking for 6-year-olds, however. The analyses of foregrounding across sessions 1 and 2 arrangements indicate further that subjects tended to stop arranging task components that had already been arranged, and to arrange instead components that had been done but never arranged and new plans that had never been arranged or done. Older subjects were more likely to initiate new plans, evidence that they were more flexible in their approach to arranging successive episodes.

Subjects generally recognized the need to work hard in communicating with a partner when paired with a different partner (session 3). In session 3, subjects were more likely than in session

2 to initiate discourse sequences to their partner, but they were no more likely to plan more components of the task than in session 2. This pattern of results suggests that subjects recognized that greater communicative effort was needed in session 3, but they did not know what kind of effort. It is possible that each subject egocentrically assumed that if her new partner had been playing store for two days just as she had, then both must have the same intentions for play. For children of the preschool age range, it may take the overwhelming novelty of task and partner (session 1) to make the need for collaborative effort apparent.

Of the methods described in this chapter, the most successful were those which produced descriptions of the activity organization -- its social or solitary nature, its completeness, the organization of arrangements. Much work remains to be done in developing analyses of collaboration during accomplishment of a task. As discussed within the chapter, development of methods for analysis of collaboration, for the analysis of the complex relations between discourse and activity organization, is better left for now to observations of children working on tasks in which talk does not constitute the doing of the task (at least the nominal task) as it does in role play.

CHAPTER VIII

FRAMING INTERACTIVE PRETENSE

In this chapter, methods to analyze children's communicative efforts to frame their pretense are described, and findings derived from these methods are reported. The categories for describing framing devices (and age differences in framing devices) were derived conjointly from the endpoint analysis (Chapter IV) and examinations of the data.

Categories of communicative procedures for framing pretense from 'outside' a state of pretense were distinguished from procedures for framing and maintaining pretense from 'within.' Certain discourse acts function to frame the fantasy from outside the fantasy. Plans for pretense (e.g. "Let's pretend ...") are initiated outside the fantasy boundaries, though their successful uptake may effect the entry into pretense. Episode and session finishes, and next-episode re-arrangements, close the fantasy from outside the boundaries of pretense, since it is the 'real' children who agree to stop role playing, to clean up, to play again. Other events function to frame the fantasy from within. Exaggerated entries and exits by the characters are dramatic in-role devices for framing the embedded portrayed interactions. Once the state of pretense is interactively constructed, it can be maintained in ongoing, coherent portrayals of persons in social episodes. In addition, the use of lexical presupposition in fantasy dialogue (lexical reference to a setting,

person, or object as if it were something it is not) contributes to a maintenance of fantasy identities. If a portrayal must be abandoned to resolve real problems, the 'fact' of the resumed reality must be established (the 'frame' must be 'broken') and the state of pretense then eventually reestablished to complete the portrayal.

Reported in this chapter are analyses of framing devices -- out-of-role plans for pretense and dramatised in-role entries and exits. Analyses of episode and session finishes and of episode rearrangements were reported in Chapter VII; these data are reviewed again here. Analyses of the contents of portrayals are presented in Chapter IX, Portraying persons in social episodes. There were problems in establishing methods for the analysis of lexical presupposition and procedures for breaking and reconstructing the fantasy frame during social episode portrayal. These problems are discussed, and examples of relevant data are presented. For the reader's reference, Table 14 contains an outline of analyses and results presented in this chapter.

Initiating Pretense: Arrangements and Entries

Framing Pretense in the Arrangement Phase

Certain linguistic devices for planning the state of pretense or reality were examined in arrangement phases. The categories were defined on the basis of propositional content. (See Appendix 11 for coding procedures.) (1) Explicit planning for pretense requires the use of discourse acts that lexically mark pretense (e.g. "Let's pretend...," "Make believe ...," "Let's play that ...") or reality ("It will real(ly) be ..."). (2) Implicit planning for pretense occurs when discourse acts function to communicate the intention that

Table 14

Framing Interactive Pretense: Summary of Analyses and Results

	Trends in data		
Pretense in role play	Age	Session	Age x session
Initiating pretense			
Arrangement phase			
Explicit planning	All subjects used at least one of these four devices at least once.		
Implicit planning			
Explicit assertions/ queries			
Implicit assertions/ queries			
Character entries in accomplishment phase			
Action entries	Only 5-year-olds	___	___
Interaction entries	Increase with age	___	For older subjects, session 2 > 1 or 3
Total entries	Increase with age	___	For older subjects, session 2 > 1 or 3
Maintaining pretense			
Lexical presupposition	(discussion of examples only)		
Linguistic devices			
Explicit planning Implicit planning Explicit assertions/ queries	13 of 14 subjects used at least one of these four devices at least once.		
Implicit assertions/ queries			

Table 14, continued
Framing Interactive Pretense: Summary of Analyses and Results

Pretense in role play	Trends in data: Age	Session	Age x session
Character exits			
Action exits	Increase with age	Session 2 > 1 or 3	____
Interaction exits	Increase with age	Session 2 > 1 or 3	____
Total exits	Increase with age	Session 2 > 1 or 3	____

the self or the other transform one state into another but the intended transformation is not lexicalized (e.g. "You be the storekeeper"; "This'll be my house"). Explicit planning and implicit planning of pretense are alike in that both are uttered by the 'real' participants from outside the fantasy, and their successful uptake constitutes an agreement on the fantasy to be subsequently enacted. They are different in that the 'fact' of the state being constructed (whether pretense or reality) is explicitly formulated only in the course of explicit planning. (3) A third category, explicit assertions of/queries regarding pretense, are assertions that formulate the existence of an explicit state of pretense or of reality (e.g. "We're pretending this is a paint jar", "This isn't really a paint jar") and questions that query the existence of an explicit state of pretense or of reality (e.g. "Is this really a paint jar?"). As discussed later, the fantasy functions of discourse acts in this third category are varied. (4) A fourth category, implicit assertions (or questions) of pretense are assertions that presuppose the existence of a fantasy state (e.g. "This is my house" referring to a corner of the laboratory room" or "I'm the storekeeper") or questions that query the existence of a fantasy state (e.g. "Is this a little gerbil?" referring to a white plastic egg.) While implicit pretense assertions/questions can be found in arrangement phases (which are located by definition outside and prior to the fantasy), they are also considered to be uttered from within the fantasy in that they presuppose a fantasy state. As discussed later, the fantasy functions of discourse acts in this fourth category are varied.

Discourse acts in all four categories were used so infrequently

in arrangements that quantitative examination was not appropriate. Across sessions, all subjects used at least one of the four categories of devices at least once in an arrangement phase. There were more subjects who used implicit pretense planning than there were subjects who used the other framing devices: explicit planning (4 of 14 subjects); implicit planning (9 of 14 subjects); explicit statives/queries (0 of 14 subjects); implicit statives/queries (7 of 14 subjects).

It is striking that subjects were virtually never arranging interactive pretense play with explicit pretense planning. (A) is one of the rare occasions.[1]

(A) K, 73 mos; L, 74 mos: Session 1, Episode 1

		K is behind counter. There is a brief disagreement about L's right to use the board phone, and then K initiates arrangement of store play.
(1) K	...That's home!	Loudly, pointing across board to lab sink. L looks confused.
	This, (oh I have), oh	K points to basket on board.
	this is my paper bag,	K touches and looks in bag.
*	and pretend that was	K leans over and touches
	your basket you brought	basket on board.
	there=here. To=	L hangs up and takes
(2) L	=Okay.	up basket.
		(Store play begins.)

The most commonly used device in arrangements, though still infrequent, was implicit planning of pretense. Most of these functioned as claims to or allocations to roles. (See content

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[1] In each of the examples cited in this chapter, an asterisk (*) indicates the utterance which exemplifies the category of analysis being discussed.

analyses of arrangements, Table 22, Chapter IX.) Only 1 5-year-old and 1 6-year-old, among all subjects, did not ever claim or allocate a role in this way. Examples (B) through (G) illustrate the use of implicit pretense planning for each age group.

(B) A, 38 mos; B, 38 mos: Session 1, Episode 2 (parallel/solitary)

			A is behind counter holding the bag of food she bagged for B in Episode 1.
(1)	B	You [know what?	A looks at B, rolls up bag,
(2)	A	[( )	puts on counter.
(3)	B	Now you pour this on here	B taps food board, then
*		and I will be the store	comes around behind counter.
		man. Okay? And you buy.	A takes bag, grabs B's basket,
(4)	A	( )	walks out of store.

(C) E, 46 mos; F, 50 mos: Session 1, Episode 1

			E is behind counter.
*(1)	E	I, I will be the payer. Faye, I will be the payer.	
(2)	F	Payer, can I have one of these?	F initiates role play.

(D) G, 66 mos; H, 68 mos: Session 1, Episode 1

			G beckons to H, takes basket, goes to food board. H follows G.
*	G	You be the storekeeper. I'll buy (food/things).	G gestures to store prop. H goes behind counter.

(E) I, 70 mos; J, 70 mos: Session 1, Episode 2

			(There were several fragments in Episode 1, which may explain J's need for a question here.)
*(1)	J	When can I be a (seller)?	J walks behind counter, then
(2)	I	All right, you can be the store man.	away again. I drops bag, walks out.
(3)	J	Yup.	J goes behind counter.
(4)	I	All right.	I picks up bag.

(F) K, 61 mos; L, 62 mos: Session 2, Episode 1

			K is behind counter.
*	K	Okay who's gonna be the cash register lady?	
	L	Me!	K walks out and goes to food board as L runs in.

(G) K, 73 mos; M, 74 mos: Session 3, Episode 1

*	K	Can I be the supermarket lady first? Can I be the supermarket lady first?	K follows M toward board.
	L	Uh huh. And I'll be the,	L quickly takes basket and
*		I'll be the buyer!	begins to put items in.

Implicit planning of pretense appears to function in arrangements at all ages in the negotiation of necessary play procedures. In arrangements, it is procedural discourse; it is not typically used to invoke pretense as a strategic maneuver.

Explicit assertions never occurred in arrangements. (For further comments, see examples and discussion of explicit assertions in the accomplishment phase.)

Implicit assertions were never used by many subjects. When they were used, their functions were varied as illustrated below.

(H) is a successful claim to a role.

(H) L, 74 mos; N, 76 mos: Session 3, Episode 2

			N's initiation of this
*(1)	N	Okay, I -- I'm the per[son.	arrangement also ends Episode 1.
(2)	L	[Okay.	
(3)	N	I'm the person.	

In (A) (1), cited earlier, K establishes a setting identity.

(I) is a repair of what E believes to be a misattribution of identity on F's part.

(I) E, 46 mos; F, 50 mos: Session 1, Episode 7

			F has just called out to
*(1)	E	Hey! I'm not mommy, I'm the payer!	"llama," her fantasy friend. E turns indignantly to F.
(2)	F	No! Llama's there, llama's over there.	(F is off camera.) (E supplies F with her basket, and episode begins.)

(J), (K), and (L) illustrate the strategic usefulness of asserting an identity from within the fantasy (within, in that the fantasy identity is presupposed). (J) is a strategic ploy to keep the 'real' bag for herself, by renaming the basket a "bag".

(J) B, 38 mos; E, 46 mos: Session 3, Episode 3

			E has just assumed the clerk role, B the customer role. E is insisting that she keep the foods that she obtained as customer in Episode 2.
(1)	E	And pretend I'll leave this here, and then,	E goes out to board, puts basket on board,
*		here's a bag for you, okay? And put the food in here, and (you) carry them home, [okay? ...	holds up basket to B, glances at B's foods on counter, bobs basket up and down earnestly. (Conflict over use of basket ensues.)

In (K), E maintains her claim to her role.

(K) B, 38 mos; E, 46 mos: Session 3, Episode 5

			E has just put B's items in basket (she refused to put them in the bag which she regards as hers).
(1)	B	Now I will be the seller.	
(2)	E	No. [Not yet.	E is very firm.
(3)	B	[Why? Why?	
*(4)	E	'Cause, I'm still the seller.	E shakes her head.
(5)	B	(No you have to) be two	B joins E inside store, and

	sellers.	an episode of "two sellers" begins.

In (L), a fantasy identity is used as a justification for procedural rights or obligations.

(L) K, 73 mos; L, 74 mos: Session 2, Episode 2

		K is arranging items on shelf.
(1) L	No no no! These are the fishes. These are the fish.	L stops K's hand and moves it down to fish pictures.
*(2) K	I can, Lisa, I am the store man I can move this=	L moves item up again.

Summary. Explicit planning was used by few subjects in arrangements. Implicit planning of pretense was used by most subjects and usually functioned to establish roles. It was procedural discourse. Explicit assertions were never used by any subject. It is intuitively appropriate that explicit assertions (or queries) (e.g. "This is a pretend ..." or "This is really ...") would not be uttered when the context lies clearly outside the fantasy frame, as it does in arrangements. Implicit assertions of pretense, used by only some subjects, were used either to establish a fantasy identity or in strategic efforts to win an argument by establishing or presupposing a fantasy state which, if in effect, justified the strategy. Further discussion of linguistic devices follows presentation of their incidence and their function in the accomplishment phase.

Entries

A standardized set of entries was defined on the bases both of the endpoint analysis and the data. A customer could frame the entry

into role play by: calling the store prior to her departure from home, traveling to the store (by whatever means), greeting the clerk. (See Appendix 12 for coding procedures.) (There are other customer possibilities, such as opening the 'door' to the store, and clerk possibilities, but others never occurred.) When a child enacts a character in any of these ways, she 'dons' her character identity, and her status as the character and not the 'real' child is communicated from the very start of the role play episode. A dyad was thus credited with a particular entry technique even if it was invalid as a representation of normative customer behavior, since it was the framing effort per se which was being examined here. Entries were coded only for complete episodes. Solitary as well as social complete episodes were coded, since there is no reason why a subject role playing alone cannot portray an entry.

Where the entry is an interaction (a call or a greeting), it functions as an initiation of the relationship between clerk and customer. When the entry is an action (traveling), it functions as a construction of the physical context. Interaction and action entries were considered separately.

The data in Tables 15, 16, and 17 indicate that, while 3-year-olds never portrayed an entry, entries were generally infrequent for older subjects as well. Only 5-year-olds ever enacted an action entry to the store, a puzzling finding difficult to interpret. The data for total entries and interactive entries are consistent with an increase in entries with age. Older subjects (5-year-olds and 6-year-olds) appeared to enact entries more often in session 2 than in either sessions 1 or 3. Perhaps for older subjects, repeated experience in

Table 15

Median Proportion of Complete Episodes containing Interaction Entries by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.00	.00	.00
5	.00	.50	.00
6	.25	.50	.25

Table 16

Median Proportion of Complete Episodes containing Action Entries by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.00	.00	.00
5	.17	.50	.00
6	.00	.00	.00

Table 17

Median Proportion of Complete Episodes containing Total Entries by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.00	.00	.00
5	.17	.50	.00
6	.25	.50	.25

doing role play with a peer enables peers to anticipate the event and thus to 'enter' it.

The following examples illustrate entries for 5-year-olds and 6-year-olds. Some interactive sequences, typically phone calls, were quite elaborate. While it is not normative for a customer to call a store to tell the clerk that she is coming or for a clerk to call and request the customer to come, it is a means of taking on both character roles, of establishing the independence of the two roles (the customer calls from her home) and initiating their subsequent store relationship.

(M) I, 70 mos; J, 70 mos: Session 1, Episode 1

(1) Action entry	J	"...I'm walking, I'm walking bum bum bum bum bum bum bum"	J playfully walks with basket back and forth across room. J is watching I who is still preparing setting; I watches J, smiling. J walks to counter,
Inter-action entry		(You/and) put these (away).	speaks quietly, indicates items left on counter, then resumes walking around. I shelves items. J then comes back to counter and knocks.

(N) K, 73 mos; L, 74 mos: Session 1, Episode 1

Interaction entry			(L may portray an action entry as well, but it is not sufficiently clear.) L picks up basket.
(1)	L	"Oh hello mh mh. Beautiful nh nh nh."	L stands in front of counter. L looks at K, 'gasps', swivels basket.

(O) K, 73 mos; L, 74 mos: Session 2, Episode 1

(1) Inter-action entry	K	"Um, (I think I'll) call the supermarket, and tell them I'm coming. Mmmmmm"	K picks up board phone. K dials. L holds store phone as she watches K dial.
		Hello?"	K looks to L, putting phone to ear.

(2)	L	"Rrring rring! Hello?"	L puts store phone to ear. L then hangs up again.
(3)	K	"Hello?"	L picks up phone again.
(4)	L	["Who's this?"	L frowns into phone.
(5)	K	["I'm coming to the supermarket."	
(6)	L	"Who who, who are you? What are you doing?"	
(4)	K	"My name is Cathy."	
(5)	L	"Cathleen what?"	
(6)	K	"Well sister what I want is I wanted my Mommy told me to go out."	
			L suddenly leaves to get a drink of water. (Interlude not transcribed.)
(7)	K	"Oh my guess I (won't) call anybody. Hello sister? Sister."	K is waiting for L, fiddling around on phone. K sees L returning, picks up phone eagerly.
(8)	L	I'm not your sister. Yeah, I'm ( ). I ( ) the pretty sister (giggle).	L is walking toward store prop. L picks up store phone.
(9)	K	(Sure.) "Sister?"	
(10)	L	"Yeah."	
(11)	K	"What do you have at the supermarket today?"	
(12)	L	"Come and look and see! If if you don't like it just go home! [Bye bye."	L gestures hand out palm up. L crosses her arms.
(13)	K	["Okay bye bye."	L hangs up store phone. K hangs up board phone.

Notes on Other Initial Framing Procedures: Setting the Scene

Certain discourse sequences appeared in a few episodes at the boundary between an apparent arrangement and accomplishment phase and could not be easily assigned to either phase. On the basis of these few cases, "scene-setting" was tentatively defined as optional first person character narrative following role play arrangements and preceding role play accomplishments, containing one or more of the

following features -- exaggerated paralinguistic features, gestures, or action embellishments typical in character discourse, lexical presupposition, tenseless definition of role rights or responsibilities (e.g. clerk: "I fix this place up"), not enactment.

(P) I, 70 mos; J, 70 mos: Session 2, Episode 1

			J swings her basket and walks around as I completes her formulation of the episode plan.
(1)	J	mmmmmmm I'm gonna sit down, n' rest, and see what I can do.	J hums as I continues. J is now off camera.
(2)	I	Well buy some stuff!	(Not clear if J or her character speaks). I is impatient with J.
(3)	J	Yeah I'm thinking (of/ what) I can buy. "Buy cabbage, de duh de duh."	J is off camera.

(Q) M, 75 mos; N, 76 mos: Session 1, Episode 3

			N enters store. M goes to board and takes up basket.
(1)	M	Well this time I'm going to my Grammy's house and you can't ( ).	M begins selecting items. She is not looking at N.
(2)	N	And I thised, and I did this time. I um, kind of do some work.	N looks around store, touches cash register. She makes no effort to address her talk to M.
(3)	M	( )	(This may be an acknowledgment.) M is selecting items, not looking at N.
(4)	N	I fix this place up. And you have to tell me if you want anything around here,	N bends to inspect low shelves. N is not looking at M.
(5)	M	Okay!	M does not look up.
(6)	N	and I'll get it out for you.	
(7)	M	Mmhmm.	M is still not looking at N.

These narrative reflections seem to indicate concepts of a character which can be formulated out of an immediately relevant episode context. J's customer in (P) "think"s (line 3) and plans;

N's clerk has responsibilities in (Q). Such reflections were never produced by the 3-year-olds.

Maintaining the Fantasy during the Accomplishment Phase

Once the fantasy is initiated, the fantasy is maintained through the coherence of the portrayal and the use of lexical presupposition. If the fantasy frame is broken, it can be reestablished with the same devices examined earlier in arrangement phases.

The contents and the coherence of the portrayals, as well as lexical presupposition of role identities, are examined in Chapter IX as evidence of children's concepts of persons in social episodes. Lexical presupposition of setting and object identities are examined through example. Quantitative analysis of lexical presupposition was not undertaken, because (a) poor videotape quality often made it difficult to recognize any discrepancy between a toy object and an identity ascribed to it, and (b) any reference to store prop and foods was ambiguous as presupposition of fantasy identity (e.g. is "the carrot" the toy carrot or a 'real' carrot?). Analyses of procedures for breaking and reestablishing the fantasy frame consist of examination of the same linguistic devices examined above in arrangement phases.

Lexical Presupposition

Clear cases of lexical presupposition almost never occurred. While subjects frequently referred to the store prop and to the toy foods, and while it is certainly likely that subjects knew perfectly well that the store and foods were not real, there is no obvious way

to determine whether their labels were intended to presuppose a fantasy identity (i.e. 'real' food) for the toy objects. There was some evidence of an age difference in the occasions for use of the store lexicon. For example, 3-year-olds almost never labeled foods in the course of play, while 5-year-olds and 6-year-olds often did. Compare younger and older subjects when the clerk is stocking shelves.

(R) C, 41 mos; D, 46 mos: Session 1, Episode 1

(1)	D	'kay, 'kay? 'kay kay?	D is putting foods on shelves.

(S) K, 73 mos; L, 74 mos: Session 2, Episode 2

(1)	K	Soda, soda! soda.	K is searching shelves for picture
(2)	L	Soda? There's no soda.	of soda. L comes over to watch.
(3)	K	Yes there is!	K arranges an item.
(4)	L	Where?	
(5)	K	No that's ketchup.	K steps back, looks at shelves.
(6)	L	Ketchup?	
(7)	K	Ketchup. Milk.	K resumes shelving.

Compare younger and older subjects when the customer is selecting foods.

(T) A, 38 mos; B, 38 mos: Session 1, Episode 1

B selects items in silence.

(U) I, 70 mos; J, 70 mos: Session 2, Episode 2

(1)	I	(sings and hums) (egg), ( ), (take a potato, corn), ( ).	I is selecting items.

(V) M, 75 mos; N, 76 mos: Session 1, Episode 2

(1)	N	(Well) I have to get two eggs. And a milk, and chocolate milk, and, corn on	N is selecting items.

the cob.

While these examples may or may not illustrate lexical presupposition of object identity, they do show how use of the store lexicon by older subjects contributed to a maintenance of the store theme in discourse as well as in action.

Some subjects (fewer than half) sometimes presupposed their partner's role identity in speaker selection devices ("Payer?," "Sir," "Miss") or when speaking to imaginary third parties (on the phone: "Could you wait a minute? I have a customer right here"). These data are presented in Chapter IX as evidence of subjects' role concepts.

Breaking and Re-establishing Frame

There was very little evidence, if any, that subjects had as a goal the ongoing maintenance of a fantasy state throughout the episode. There was only one clear case of subjects trying first to solve a 'real' problem from within the fantasy. In (W)(1), K seems to hinting to L from within the fantasy that she (i.e. L) should have money, and L responds with an immediate fantasy solution.

(W) K, 73 mos; L, 74 mos: Session 1, Episode 1

		K is behind counter, L is selecting foods. K is exploring store prop and finds play money inside cash register drawer. She closes it.
(1) K	"Miss, (do you), are you sure your have money?"	K leans over counter toward L.
(2) L	"Yes('m), see?"	L reaches into imaginary pocket pulls out imaginary money to show K.
(3) K	Oh, I have, oh (well I got) pretend this was all your money okay?	K opens cash drawer again, L comes over to look. K hands L money.
(4) L	Okay.	

K is evidently not concerned that she breaks frame in (3).

The incidence of linguistic devices for planning and asserting pretense was examined in an effort to discern what subjects were doing to create and maintain a state of fantasy. Almost all subjects (13 of 14) used at least one of the four categories of devices at least once in an accomplishment phase. More subjects used implicit statives or queries than used any other category: explicit planning (7 of 14 subjects); implicit planning (3 of 14 subjects); explicit statives/queries (6 of 14 subjects); implicit statives/queries (12 of 14 subjects). Thus most subjects were attempting to negotiate at least some agreements from within the fantasy, via an implicit stative or query. Explicit planning was used by half the subjects (including all the 6-year-olds). Explicit planning was used only in sessions 1 and 3, not in session 2, indicating that those subjects who were explicitly planning pretense were appropriately doing so when partner and play were unfamiliar (session 1) and when partner was unfamiliar (session 3), not when interactive role play of the pretense theme had been repeatedly shared with the same partner (session 2). Further discussion accompanies examples below. (Note that these devices were so infrequent that many of these "examples" constitute the data base for that dyad in that session.)

Explicit pretense planning. When partners make an explicit pretense plan (typically, when one partner complies with the other's explicit pretense request), and the play is then enacted as agreed, such juxtapositions of explicit pretense planning and subsequent role play are constructions of the fantasy boundary. However, not all

explicit planning was followed with role play consistent with the plan just made. Some plans were never used.

Explicit pretense planning was observed in several contexts. It was used in session 1 to establish a critical component of the play so far left unarranged. In (X), the customer is supplied with money. (Y) is a similar but unsuccessful effort by a 3-year-old.

(X) G, 66 mos; H, 68 mos: Session 1, Episode 1

		G is behind counter, H in front.
(1)	G ..."It'll be, 29 cents."	
(2)	H ( )	H whines, sits down with bag.
(3)	G "Just one cent. One cent."	H looks sort of lost.
	Give, just pretend you have the money.	G reaches out, then gestures as if she had money in pocket.
*	Pretend you have some. Pretend you have some.	
		H puts bag back on counter, half-heartedly pretends to put money on counter, sits again.

(Y) E, 46 mos; F, 50 mos: Session 1, Episode 1

		E and F have ambiguously concluded a disorganized transaction with money. E, as clerk, has given F "change". (F never paid.) F offers E some of the money back. E declines, explaining that the money belongs to F. F is confused.
*(1)	E Pretend that you have some money. (Sss/Just) give money out. See, see this is my money and see this is, ten. See you can't have this until, (pays) ten thirty.	E continues to explain. E gestures palm up. E opens up cash register drawer, touches money. F looks. E picks up a coin. E returns coin, closes drawer, resumes bagging.

Much of explicit planning was used to plan new ideas for play in the course of the episode. (Z), (AA), (BB), (CC) illustrate.

(Z) E, 46 mos; F, 50 mos: Session 2, Episode 5

			Although E is clerk, she is out at food board showing F an item (a miniature box).
*(1)	F	...pretend there's paint, and just want, one paint.	
(2)	E	Okay here, you want, some paint.	E sets down box.

(AA) G, 66 mos, H, 68 mos: Session 2, Episode 3

			Episode 3 is essentially complete, and G is returning bagged foods to food board. H, still behind counter, attempts to organize what, when finally successful, becomes a fragment. H does not easily recognize G's goal.
*(1)	H	Make believe you said, "Do you have any fish?"	H is looking at fish pictures on shelves, does not look at G.
		"Oh wa' wait a minute boss, wait a minute."	H talks into phone. H sets receiver on counter.
		"What did you say, ma'am?"	H leans over counter toward G with a smile.
(2)	G	Nothing.	(G answers literally.)
(3)	H	Yes, ( )[(fish)	
(4)	G	[whaaa! ( ). I'll be with you, I'll bring them.	G is struggling with paper bag.
(5)	H	You said, "Do you have any fish?"	H glances at G.
(6)	G	No.	G puts folded bag on counter.
(7)	H	No you said that!	H points to G in frustration. (H's struggle to communicate her plan continues.)

(BB) M, 75 mos; N, 76 mos: Session 1, Episode 3

			M is selecting foods. N is behind counter.
(1)	N	"Okay Miss!"	N speaks to imaginary party on
*		Pretend that there's another lady here.	store phone. M turns to watch.
		"That is ---	N opens cash register, starts to look through money, phone falls.
		25, 50, 10, ( )"	N takes out coins one by

one, speaking into phone again.

(CC) K, 73 mos; M, 75 mos: Session 3, Episode 1

			M has been selecting foods. K is behind counter.
*(1)	M	Hey let's play house, I'll pretend this will be my house.	M suddenly turns to K. M gestures to chair?
*(2)	K	We'll play house, after we play our groceries.	K is opening up bag.
(3)	M	Okay.	

Implicit pretense planning. When partners plan pretense implicitly and then enact the play as agreed, the juxtaposition of pretense planning and subsequent role play is a construction of the fantasy boundary, even if it is not formulated as such. However, as for explicit planning, not all implicit planning was followed with role play consistent with the plan just made.

Implicit pretense planning was observed in several contexts. It occurred in "defaulted arrangements," unsuccessful claims to a role switch that occurred in the middle of an episode. In defaulted arrangements, implicit pretense planning is intended to serve the same procedural function in establishing roles as it is in successful arrangements. (DD) is an example.

(DD) A, 38 mos; B, 38 mos: Session 2, Episode 1

			A has bagged B's foods, but she refuses to give the bag to B.
*(1)	B	(C'n I, n'I) let's be both buyers now.	B goes around back of store.
(2)	A	No! No! Don't don't [(get out).	A grabs store phone protectively.
*(3)	B	[(ah no), Yes, I wanna be, two buyers.	B is emphatic.
(4)	A	No you can't get in. 'Cause it's locked. (You) can't come in.	A turns her back to B, stands her ground. (B's effort to initiate a

new episode defaults, and
episode 1 resumes.)

Implicit pretense planning was also used in efforts to establish components of play not yet arranged.

(EE) M, 75 mos; N, 76 mos: Session 1, Episode 1

			N is pricing M's items. M is
*(1)	M	Where should my be home be?	waiting. M looks around room.
(2)	N	(I don't know) (giggle)	N is still checking out items.
*(3)	M	I know where my home should be.	M is looking behind N. (However, there is no further talk or use of "home".)

Explicit statives/queries. Explicit assertions of and queries regarding pretense, in that they make reference to the fantasy frame, serve to construct its relevance but not necessarily its location. Once an assertion is acknowledged or a question answered, we cannot be certain whether the dyad is then in or out of a fantasy state. In this regard, explicit statives/queries differ from both explicit and implicit planning, which, when successful, are found in discourse sequences followed by clear fantasy enactments of the plan just made.

Explicit assertions of/queries regarding pretense or reality were used by only 6 of 14 subjects. The following examples constitute the entire set. (FF) and (GG) illustrate efforts to clarify real confusions over the status of an object or action.

(FF) E, 46 mos; F, 50 mos: Session 2, Episode 5

(1)	F	Is this paint jar?
(2)	E	Yes but =
*(3)	F	=Are they real paint jars?
(4)	E	Yes. Well, Faye, uh
*		we're pretending (they're) paint jars.

(GG) M, 75 mos; N, 76 mos: Session 1, Episode 1

(1)	N	...I have to put it in a bag.	N is pricing items.
(2)	M	Well this is my bag.	M twirls around with basket.
(pay/change transaction deleted here)			
*(3)	M	You really took a ba! (laughs) --g! [(laughs)	M watches N take out a bag in astonishment.
(4)	N	[(giggles)	
*(5)	M	You really took a bag. (laughs). You really took a bag. These are real bags.	

(HH) illustrates the very rare strategic ploys of older subjects to invoke pretense to sidestep a dispute.

(HH) M, 75 mos; N, 76 mos: Session 1, Episode 3

			N is checking out M's items. M begins putting items into her basket.
(1)	N	Hey! I didn't even price those!	(M brings her basket to the
*(2)	M	I'm pretending you did.	the store.) M continues. N goes on to inform M of total cost, thereby tacitly agreeing that she'd priced all the items.

Implicit assertions/queries. Implicit assertions and queries were used by more subjects than was any other device. These discourse acts presuppose a fantasy state and thereby, in most cases, serve to maintain it.[2] They were observed in several contexts.

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[2] A complex exception to this analysis of the function of implicit

They were used to establish components of play so far not arranged. (JJ) is an establishment of a role identity (then never used, however). (KK) and (LL) illustrate very clever, unusual uses of implicit assertions by some older subjects to establish identities within character discourse.

(JJ) A, 38 mos; B, 38 mos: Session 2, Episode 2

			A is out in customer area with basket. B is behind counter,
(1)	B	...A A I A I (G M O) kelo-meno-P. H R E =	absorbed 'counting' money. A baskets some of the money.
*(2)	A	I'm the mother.	A does not look at B.
(3)	B	'kay.	B does not look at A.
			(There is no further use of the mother identity.)

(KK) K, 73 mos; L, 74 mos: Session 1, Episode 1

			L is selecting items. K is behind counter. She makes ringing sound and picks up
*(1)	K	"This is sure shoprite, yes!"	phone.

---

assertions is a claim with an implicit assertion as its propositional content. (II) illustrates.

(II) K, 73 mos; M, 75 mos: Session 3, Episode 1

*(1)	M	I'm the store lady now.	
(2)	K	(Oh) wait!=	K is still pricing items.
(3)	M	=Oh yeah.	M returns to front of counter and watches K.

M's effort to claim breaks the continuity of the current social organization of grocery store role play: M wants "now" to switch roles, an utterance which can only be heard as originating 'outside' the fantasy. Her choice of form ("I'm the ..." vs. "I'll be the ..." or "Pretend I'm the ...") may indicate a clever attempt to sidestep possible negotiation of roles; if she 'is' the store lady now, then there is nothing to negotiate, and the fantasy has begun as she wishes. The study of claims -- the utterances which are used in efforts to claim, the character of claim negotiations, the contexts of claim negotiations -- would be a dissertation in its own right.

(LL) M, 75 mos; N, 76 mos: Session 1, Episode 3

			M is selecting items. N
*(1)	N	"Well, there's some lady here, but, I have to ask her what, her name is,"	picks up phone.
		"What's your name?"	N puts receiver to her chest,
*(2)	M	"Um Patty."	talks to M.
		No! "Elizabeth, uh -"	N puts phone back to ear.
*(3)	N	"Oh, Elizabeth is here."	
		This is your husband, (here).	N puts phone back on chest, points to receiver, uses intimate tone. N puts phone back to ear. (Phone conversation
		....	continues.)

Implicit assertions were used to repair misattributions of role identity.

(MM) A, 38 mos; B, 38 mos: Session 2, Episode 1

			A is behind counter, waiting
(1)	A	('ady), give me some- thing.	for B to bring her more items to bag. She leans over counter.
(2)	B	No I, no I'm not a baby,	B continues basketing items as
*		I'm a big mommy.	she speaks.
(3)	A	(No/well) I'm a girl.	A opens register, gets a coin,
* (4)	B	I'm a mommy.[I'm a mommy	bags coin, closes register.
(5)	A	[Girl, give me --	A stretches hand out to B.
		Mommy, give me something.	
(6)	B	Okay.	B looks at A.
		Ah okay, just a minute.	B hurries up her basketing.

They were used in disputes over a character's fantasy location.

(NN) I, 70 mos; J, 70 mos: Session 1, Episode 1

		mmmmmmmm I'm calling you mmmmmm.	I picks up phone, dials. J still eats, sitting on couch.
(3)	J	( ). "Who is it?"	
(4)	I	"Hah beep beep -- oh,	
*		nobody's home."	I hangs up.
*(5)	J	Yes I'm home.	J looks at I, distressed.
(6)	I	You have to be at the telephone.	

Assertions of role identity were used to justify a character's rights.

(00) A, 38 mos; B, 38 mos: Session 1, Activity unit 3

			(Parallel/solitary collection) B has been trying to get A to put foods on the counter. A is filling the basket and both bags with foods.
(1)	B	...You have to!	
(2)	A	Let me (uh) have the bag. 'Cause I need to, fill (the) =	A runs over and grabs another bag.
*(3)	B	But I'm the buyer so you have t-- 'Kay.	B raises her voice insistently. A throws B a partially filled bag. B dumps bag out on the counter.
.			
.			
.			Later, A comes over to counter, takes a coin, puts it in cash register. B tries to protect it from A. A puts coin through slot near top.
*(4)	B	No, I'm the seller.	
(5)	A	I'm (finished/put it).	
(5)	B	'Kay.	

In sum, implicit assertions enabled a variety of negotiations to proceed within the fantasy frame. Unfortunately, although more subjects used implicit assertions than any other device in the accomplishment phase, there were still too few cases to permit adequate description of possible age differences in uses of these devices.

Summary. There was no evidence that maintenance of a pretense state throughout an episode was a goal for any subject. Construction of pretense states at some point during an episode was a goal for many subjects, as evidenced by the occasional use by some subjects (especially 6-year-olds) of explicit pretense planning, the occasional enactments of explicitly or implicitly negotiated pretense plans, and

tne (very) occasional explicit assertion or query. There was very tentative evidence that at least some subjects were working harder at explicit construction of pretense when play and partner were novel (session 1) and when partner was new (session 3), and that therefore these subjects were backgrounding explicit framing once the play theme had been shared with their partners. Maintenance of a pretense state at some point during an episode was a goal for most subjects, as evidenced by the use by most subjects of implicit assertions, which presuppose a state of pretense.

Ending the Fantasy

Exits

A standardized set of exits was defined on the bases both of the endpoint analyses and the data. A 'customer' could frame her exit from role play by: thanking the clerk, bidding farewell, traveling home. A clerk could frame her exit from role play by: thanking the customer, bidding farewell, calling the customer prior to a delivery, delivering the foods. (When more than one of these is included, there are many permissible sequences, and some interactions, particularly "Thanks", can occur more than once. Each exit category was coded only once per dyad per complete episode.) Interaction exits (thanks, farewells, and deliveries) function to close the relationship between clerk and customer. Action exits (traveling home and deliveries) function to construct, in retrospect, the physical context. Interaction and action exits were examined separately.

The data in Tables 18, 19, and 20 indicate that exits were moderately common at all ages. There was a trend of an increase in

Table 18

Median Proportion of Complete Episodes containing Interaction Exits by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.00	.00	.25
5	.50	.50	.25
6	.50	1.00	.50

Table 19

Median Proportion of Complete Episodes containing Action Exits by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.00	.17	.25
5	.33	.50	.00
6	.50	.50	.25

Table 20

Median Proportion of Complete Episodes containing Total Exits by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.00	.17	.25
5	.50	.50	.25
6	.50	1.00	.50

action, interaction, and total exits with age. There is a very weak trend indicating more frequent exits in session 2 than in session 1. For some subjects, experience role playing the same theme may have helped them to anticipate the end of the episode and to 'take off' the character identity via an exit.

Examples below illustrate exits for each age group.

(QQ) C, 41 mos; D, 46 mos: Session 1, Episode 1

Ac-	(1) D	Now you take it to your car, okay?	D hands C filled paper bag.
tion ex-	(2) C	(nods)	C walks off with bag, then looks back at D questioningly.
	(3) D	Find your car, ( ). Find your car, 'kay? 'kay?	D comes out of store. D and C go to a chair in the corner. C sits on chair. D returns to store. C pretends to drive.

(RR) E, 46 mos; F, 50 mos: Session 1, Episode 1

	(1) F	Now, okay I have to put it in my home and [take a walk	F, holding money, walks off with exaggerated gait.
Action exit	(2) E	[No, no Faye ...	E stops F and initiates a fragment.

(SS) D, 46 mos; F, 50 mos: Session 3, Episode 1

			D has just brought filled bag and basket to F, who is sitting on a chair at side of room.
	(1) D	Now, now sit on the seat and put the bag here, and put the basket there, [an' then you drive!	
	(2) F	[But where can you put these.	F puts packages on a different chair.
	(3) D	[(Here/There).	D watches.
	(4) F	[No no this is, this is llama's car, she has to drive, she, she drives over there. She's driving over there with the bag(s), she=	F returns to her own chair. F sits cross-legged on chair. As F talks, D uncrosses F's legs.

	(5) D	='kay.	Not a response; D has just finished adjusting F's legs.
Ac-	(6) F	It's her plane, so, bye	
tion and		I'm going to llama's,	
Interaction		[It's her plane.	
exit	(7) D	[Bye.	
		Bye.	D walks back to store.

(TT) G, 66 mos; H, 68 mos: Session 1, Episode 1

			H has just given G change.
	(1) G	"Okay! Thank you!	G takes bag,
Action		do doo do doo doo doo"	walks out of store with
exit			exaggerated gait.

(UU) K, 73 mos; L, 74 mos: Session 1, Episode 1

			(The details of the following delivery were negotiated at very great length just prior to this. See (D), Ch. VII.)
	(1) K	..."dring dring dring"	K is on store phone.
	(2) L	"Hello?"	L is on board phone, which she has taken to the corner she uses as "home".
	(3) K	"Yes this is the store-keeper, um be, I'll be, right over."	
	(4) L	"Okay ba-bye!"	L, then K, hang up.
		"Oh no! My husband has to hide!"	L looks around her corner.
		"Quick, go hide."	L whispers to "husband".
		"Okay, okay."	L uses "husband" voice.
		( ).	L mumbles. Meanwhile K rolls
Action			up bag, gets basket, and skips
and			over to L's corner.
	(5) K	"Dring!"	
Inter-		That's your door, your	K and L are briefly off camera.
action		door bell. "Dring	
exit		dring!"	K gestures in air.
	(6) L	"Hello?"	L is still off camera.
	(7) K	"This is the, here's, you forgot your basket (here)". (giggle)	K extends bag and basket to L. K goes back to store.
	(8) L	"'Kay. Ba-bye."	
	(9) K	"Bye bye."	

(VV) K, 73 mos; L, 74 mos: Session 2, Episode 1

	(1) K	"Thank you."	L hands K change.

	Could you please deliver that."	K walks away.
Action		L is putting money in register.
exit	Mommy I'm home, here's all my change."	K is off camera.

The examples illustrate the trend of increase in interaction exits with age. Although in the 3-year-old dyads both may participate, both characters may not. In (QQ), (RR), and (SS), for example, most of D's and E's involvements are instructional; they direct their partner's exits. In (UU) and (VV), both characters have some part to play in the exit.

Episode Finishes, Session Finishes, and Episode Re-arrangements

In Chapter VII, it was reported that episode finishes and session finishes were rare. Those finish phases that did exist were particularly effective as boundaries of the store fantasy in that their only function was to end the fantasy. Most episodes ended with a re-arrangement of the next episode.

Summary and Discussion

In this chapter, methods for analyzing procedures for framing interactive pretense were described, and results derived from these methods were reported. It appeared that subjects were not working either frequently or consistently at framing a state of pretense throughout each episode. All subjects used at least one linguistic device for framing pretense at least once in an arrangement phase. More subjects used implicit pretense planning ("You be ...," "I'll be ...," "This'll be ...") than used any other device in the arrangement phase, evidence that more subjects were concerned with establishing

essential play procedures in the arrangement phase than were concerned with establishing a state of fantasy per se. Once play began, fewer than half of older subjects' complete episodes contained portrayals of character (customer) entries into the fantasy scene; no 3-year-old ever entered the scene. Thus more frequently than not, the status of the subject as either her 'real' self or her pretend character was unclear at the outset of the episode. Older subjects appeared somewhat more likely to enter the scene after repeated experience role playing store with the same partner; shared history of role play with a partner may have helped some subjects consolidate their representation of possible store episodes and then anticipate an episode's beginning. During interactive role play, almost all subjects at some time used at least one implicit assertion of/ query regarding pretense, evidence that subjects were sometimes making an effort to maintain the fantasy state. There were some clear cases of out-of-frame pretense planning which was followed by in-frame fantasy play consistent with the agreed plan. These, and the rare use of explicit assertions of/queries regarding pretense ("Is that real?" "I'm pretending....") indicate that many subjects had as a goal for at least some portion of their play the co-construction of pretense, but no subject was engaged in putting on a whole pretend scenario without a break in frame. While subjects were able to role play complete store episodes (see Table 7, Chapter VII, for analyses of complete social episodes), they were not organizing pretense states at the same level of complexity.[3] About half of subjects' complete episodes

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[3] The inability of coders to distinguish out-of-frame negotiations from in-frame enactments, furthermore, indicates that subjects were

contained portrayals of character exits out of the fantasy scene. Older subjects were more likely than 3-year-olds to exit. As for entries, there was some evidence that role play history with the same partner facilitated portrayal of exits. Episodes were then usually concluded with a rearrangement of the next episode. Episode finishes whose unique function is to close the episode from outside the fantasy boundary were very rare.

The infrequency of many devices for establishing and maintaining pretense was both surprising and methodologically troublesome, in that it made interpretation of subjects' use of framing devices difficult. The inconclusiveness of the results may be a consequence of the excessively structured nature of the play context. In the course of designing and carrying out the analyses reported in this chapter, it became ironically clear that the study context was not well suited to research on the framing of pretense. The subjects in this study were told what to play, and they were supplied with a complete miniaturized setting. The subjects' creative constructions of role play themes other than store were excluded from analysis, and yet these exclusions may better represent the topic of study -- interactive 'framings' of scenarios not given in available play materials, interactions in which peers are continually defining for one another who they are, where they are, and what they are doing. Given the instructions and setting used in the present study, it was probably obvious to subjects 'where' they were and fairly clear 'who' they could possibly be and 'what' they could possibly be doing. The need to frame may have been made

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often not methodically organizing pretense states at any level of complexity.

irrelevant.

Whether the infrequency of the linguistic procedures examined is a result of a richly structured play context is an empirical question. The categories of analysis that were devised are a contribution to a potentially more complete analysis of communicative procedures for the framing of interactive pretense than has been available to date. These categories should be useful for comparative examinations of children's role play in contexts less structured than the one used here.

CHAPTER IX

PORTRAYING PERSONS IN SOCIAL EPISODES:

EVIDENCE FOR SOCIAL PLAN KNOWLEDGE

Role play interactions are a valuable source of data regarding young children's conceptions of persons in everyday social interactions. Reported in this chapter are methods and resulting analyses which were designed to reveal how subjects portrayed social episodes. Analyses of developmental differences in these portrayals provide a basis for inferring the course of developmental change in children's social plan knowledge.

According to the end-point analysis of interactive role play, a 'successful' social episode portrayal is one in which the persons portrayed appear to be pursuing a motivated course of actions and interactions. While the highest-level goal of each character may be independent (the customer needs to obtain her groceries, and the clerk needs to obtain her pay), at lower levels the subgoals of each character interact (the customer must have her goods priced and totaled by the clerk, and the clerk needs to do her job by servicing the customer). It is important to determine children's representations of each character's independent goals and their representations of characters' interacting goals.

To determine what subjects were ostensibly intending to portray in their role play, an analysis of the contents of the children's arrangement activity is presented. Then two kinds of data are

examined as more specific evidence of children's representations of motivated actions and interactions: their formulations of their characters' intentions, and the sequential organization and the conerence of their portrayals. For the reader's reference, Table 21 contains an outline of analyses and results.

Arrangements: Planning the Portrayal of a Social Episode

The contents of arrangement phases are categorized as described in Appendix 6. Since these categories are commonsensical, they are briefly defined below in the course of discussing the data.

Table 22 contains, for each category of arrangement content, the median proportion of arrangements containing that category across age and session. Over all ages and sessions, few arrangements contained planning of play theme (e.g. "Let's play store"); since the theme was assigned, this is hardly surprising. It is noteworthy that subjects arranged the theme only in sessions 1 and 2, the 6-year-olds in fact only in session 1. Apparently the more often the investigator instructed the subjects to "play store," the more obvious and shared the theme became. Setting identity was also almost never planned. (Indeed, what the 6-year-olds were establishing in session 1 was not the identity of store but of "home.") In many arrangements, the identities (e.g. "storekeeper," "lady") and/or the defining activity (e.g. "buy," "sell") of the roles to be played were established. It is interesting that the 3-year-olds increased steadily in the frequency of roles names from sessions 1 to 2 to 3, while the 6-year-olds decreased steadily, and the 5-year-olds used role names only in sessions 1 and 3. It may be that, for the youngest subjects, concepts

Table 21

Portraying Persons in Social Episodes: Summary of Analyses and Results

Characteristics of portrayals	Trends in data		
	Age	Session	Age x session
Arrangement contents			
Theme	___	Not in 3	For 6-year-olds, not in 2
Setting	Only 6-year-olds	___	For 6-year-olds, only in 1
Turn-taking	Increase with age?	___	___?
Role name	Increase with age?	___	For 3-year-olds, 3 > 2 > 1
			For 5-year-olds, 2 < 1, 3 > 2
			For 6-year-olds, 3 < 2 < 1
Role activity	5-year-olds < 3- or 6-year-olds	___	For 3-year-olds, 2 < 1, 3 > 2
			For 5-year-olds, only in 1
			For 6-year-olds, 2 > 1, 3 < 2
Role steps	Decrease with age (Only 3-year-olds)	___	For 3-year-olds, 3 > 2 > 1
Role discourse	Increase with age (Only 6-year-olds)	___	For 6-year-olds, only in 3
Role location	Decrease with age (Only 3-year-olds)	___	For 3-year-olds, 3 > 2 > 1
Role ownership	Decrease with age?	2 < 1	For 6-year-olds, only in 1

Table 21, continued
Portraying Persons in Social Episodes: Summary of Analyses and Results

Characteristics of portrayals	Trends in data		
	Age	Session	Age x session
Role purpose	Only 5-year-olds	___	For 5-year-olds, only in 1
Role motive	Decrease with age (Only 3-year-olds)	___	For 3-year-olds, not in 3
Simple claim	___	___	___?
Clean up	Increase with age	___	For 3-year-olds, 3 < 2 < 1
			For older pairs, less than 100% only in 1
Stock shelves	Increase with age?	___	___?
Supply basket	___?	___	___?
Supply money	Increase with age	___	For older pairs, not in 1
Formulations: Evidence of independent goals			
Highest role conceptualization in arrangements			
Role identity	Increase with age	___	___
Role activity	Increase with age	___	___
Role location	Decrease with age	___	___
Simple claim	___	___	___

Table 21, continued
Portraying Persons in Social Episodes: Summary of Analyses and Results

Characteristics of portrayals	Trends in data		
	Age	Session	Age x session
Role names in accomplishments			
Role formulation	(used by few subjects)		
Role presupposition	(used by majority of subjects, but too infrequent for quantitative analysis)		
Motive and purpose			
Generic purpose	(too infrequent for quantitative analysis)		
Item purpose	(too infrequent for quantitative analysis)		
Generic motive	(used by all subjects at least once; too infrequent for quantitative analysis)		
Item motive	(used by 12/14 subjects at least once; too infrequent for quantitative analysis)		
Formulations: Evidence of interacting goals			
Formulation of both vs. one role	Decrease with age in both roles	___	For 3-year-olds, 3 > 2 > 1 For 5-year-olds, only in 1 For 6-year-olds, only in 3

Table 21, continued
Portraying Persons in Social Episodes: Summary of Analyses and Results

Characteristics of portrayals	Trends in data[a]		
	Age	Session	Age x session
Episode organizations: Evidence of independent goals			
Episode completion	Increase with age	2 < 1	For 6-year-olds, 3 > 2
Successful mid-episode turn switch	Decrease with age (Only 3-year-olds)	___	___
Carry-overs	Decrease with age (Only 3-year-olds)	___	___
Episode directedness/ fragments	Decrease with age (No 6-year-olds)	___	For 3-year-olds, 3 > 2 > 1 For 5-year-olds, only in 1 and 2
Simultaneous portrayals			
Thematically consistent vs. inconsistent monologues	Increase with age *	___	___

[a] Any age or session effects found to be statistically significant are indicated with an asterisk (*).

Table 21, continued
Portraying Persons in Social Episodes: Summary of Analyses and Results

Characteristics of portrayals	Trends in data		
	Age	Session	Age x session
Episode organizations: Evidence of interacting goals			
Role switch	Increase with age	___	___
Parallel/ solitary collections	Decrease with age	___	For 3-year-olds, only in 1 and 2
Clerk intrusions	(too infrequent for quantitative analysis)		
Valid interactions	Increase with age	___	___?

Table 22

Median Proportion of Arrangements containing Categories of Arrangement Content by Age and Session (Dyad as Subject)

		Arrangement contents							
Session	Age	Theme	Setting	Turns	Name	Activity	Steps	Talk	Location
1	3	.11	.00	.08	.50	.67	.40	.00	.20
	5	.16	.00	.16	.58	.16	.00	.00	.00
	6	.12	.38	.12	.12	.38	.00	.00	.00
2	3	.33	.00	.00	.22	.33	.22	.00	.33
	5	.12	.00	.12	.00	.00	.00	.00	.00
	6	.00	.00	.50	.50	.75	.00	.00	.00
3	3	.00	.00	.07	.13	.80	.20	.00	.60
	5	.00	.00	.00	.50	.00	.00	.00	.00
	6	.00	.00	.16	.75	.25	.00	.16	.00

Table 22, continued

Session	Age	Arrangement contents							
		Owner	Purpose	Motive	Claim	Clean-up	Stock	Basket	Money
1	3	.33	.00	.20	.11	.20	.11	.20	.00
	5	.00	.16	.00	.00	.83	.25	.00	.00
	6	.25	.00	.00	.50	.83	.00	.50	.00
2	3	.11	.00	.11	.00	.16	.11	.00	.00
	5	.00	.00	.00	.25	1.00	.25	.25	.25
	6	.00	.00	.00	.00	1.00	.25	.00	.25
3	3	.13	.00	.00	.00	.00	.00	.00	.00
	5	.00	.00	.00	.50	1.00	.00	.50	.25
	6	.00	.00	.00	.00	1.00	.25	.00	.00

of the store roles emerged over the course of the three play sessions to become more 'nameable,' while the older subjects were instead making adjustments in use of role name to certain communicative contexts. (However, only the 5-year-olds made adjustments in session 3, if we can indeed regard an increase in use of role names as the appropriate adjustment to session 3.) Only 3-year-olds ever planned specific steps of a role (e.g. "...then you take it to your car...") or the appropriate location of a role (e.g. "You go in there!"). Only 6-year-olds ever arranged character discourse (e.g. "Hello! I'm the storekeeper!" That's what you do). Thus the subjects who knew least about store episodes, the 3-year-olds, (see Chapter VII and X) were more apt to arrange the steps of the episodes explicitly. Perhaps the 3-year-olds' concern with episode actions and the 6-year-olds' (infrequent) concern with character discourse indicate emerging awarenesses of these respective components of social episodes. It is important to note, however, that arrangement of episode actions and discourse was, for any subject group, less frequent than arrangement of role identity and role activity. Thus all older subjects and 3-year-olds in many arrangements appeared to assume that they and their partners shared understanding about what to do once roles were established. (As discussed in Chapter VII, this assumption was often egocentric; for example, subjects did not increase the variety of arrangement contents in session 3 when repartnered.) Consistent with the argument that explicit planning of episode components may reflect emerging understandings of those components, only 3-year-olds ever established a character motive in the arrangement phase (e.g. "and you want food, so..."), and it was primarily 3-year-olds who establisned a

character's ownership of objects (e.g. "This is my food for me to eat not you"). Only 5-year-olds ever established a character purpose (e.g. "I'm making a lot of dinner tonight"); these were too infrequent to warrant interpretation. Character motives and purposes were established only in sessions 1 (motives, purposes) and 2 (motives), suggesting that these were increasingly assumed by subjects to be shared representations. The 5- and 6-year-olds demonstrated planful orderliness in preparing the setting for an episode. They almost always returned the setting to its initial state before playing again (an analysis done only for Rearrangements), and they more often transformed the initial setting by stocking the prop shelves with toy foods. Older subjects infrequently, but more often than younger 3-year-olds, supplied the customer with a basket and/or money before initiating role play.

In sum, in arrangements subjects were primarily engaged in establishing role identities by name or by defining role activity. Only 3-year-olds arranged specific steps of a role play episode, or character locations, or character motives. Older subjects were more planful in setting up the fantasy scene.

Formulations

Formulations of Role

Arrangements. As an initial examination of subjects' concepts of characters' roles, arrangements were examined for formulations of the roles that subjects were organizing and claiming. Categories were constructed from the data themselves. Subjects were observed to formulate role identities ("storekeeper", "lady", "customer", "buyer",

"seller", "payer"), basic role activities ("buy", "sell"), and role locations ("behind the counter", "in front of the counter"), as well as make simple claims to roles containing no role formulation ("my turn"). Typically the first discourse act containing any role formulation or a simple claim resulted in a successful claim to (or assignment of) that role, and subsequent discourse acts containing other kinds of formulations served to elaborate the role. For the purposes of this analysis, all formulations were coded, whether role claim or role elaboration, and the most explicit formulation of any role was selected, where explicitness corresponded to a hierarchy of (1) role identity, (2) role activity, (3) role location, and (4) simple claim. It was reasoned that: (a) formulations of role identities are formulations of participant roles -- of persons -- while formulations of activity and location do not clearly differentiate the 'real' child from the character she will portray; (b) appropriate formulations of basic role activities (i.e. "buy", "sell") indicate a (more or less) normative representation of what clerks and customers do, while formulations of role location are overly particular (clerk and customer roles are not defined by location, even if clerk and customer are usually found in certain locations); (c) simple claims can be quite appropriate in a variety of contexts, including arrangements where participants share understandings about their role play plans, and therefore they are ambiguous as evidence of subjects' representations of their roles.

The data in Table 23 indicate a trend of increase with age in formulations of role identity (except in session 1) and activity and a decrease with age in formulations of role location. Thus older

Table 23

Median Proportion of Arrangements containing, as the Highest Level Formulation for a given Role, Formulations of Role Identity, Role Activity, Role Location, and Simple Claim, by Age and Session (Dyad as Subject)

		Highest level formulation			
Session	Age	Role Identity	Role Activity	Role Location	Simple Claim
1	3	.22	.13	.20	.11
	5	.58	.17	.00	.00
	6	.12	.42	.00	.58
2	3	.17	.33	.11	.00
	5	.00	.00	.00	.33
	6	.75	.50	.00	.00
3	3	.20	.13	.47	.00
	5	.50	.00	.00	.50
	6	.75	.25	.00	.00

subjects more frequently identified a role by name and thus formulated the persons whose identities they would assume. There is no evident pattern in the age distribution of simple claims. There is no evident pattern of session or age x session differences for any category.

Accomplishment phases. In accomplishment phases, roles were sometimes formulated, as in arrangement phases, and sometimes presupposed in speaker-selection devices (e.g. "Payer?," "Miss") or other character discourse (e.g. to someone on the phone: "Could you wait a minute? I have a customer right here"). However, the incidence of role formulation and role presupposition in the accomplishment phase was too infrequent to warrant quantitative analysis. Roles were formulated at least once by only 5 of 14 subjects during play across all sessions. More subjects (10) presupposed their partner's role identity at least once from within the fantasy. There was no apparent age trend. Thus in accomplishment phases, many subjects were sometimes contributing to the construction of a role identity from within the fantasy, by presupposing a fantasy identity.

Formulations of Motive and Purpose: Evidence of Characters' Independent Goals

In order to examine children's representations of each character's independent goals, four categories of character intent were defined: generic motive, item motive, generic purpose, item purpose. (See Appendix 13 for coding procedures.) 'Motives' are statements of or questions regarding need or desire (e.g. "I want some food" or "Do you need a lemon?") for some store item(s), with no

stated goal for their use. "Purposes" are statements of (or questions regarding) intent for use of store item(s) (e.g. "'cause I'm making a lot of dinner"). Either motive or purpose can refer to either items in general ("...food...", "...all these...") or a specific item ("...lemon...", "...milk...") or set of items ("...lemons...", "wine and milk"). It was reasoned that any of these formulations contributed to the portrayal of a motivated character, but that generic formulations, both motive and purpose, were efforts to establish character intentions at the level of the episode, and that formulations of generic purpose in particular were efforts to motivate the character by supplying her with an episode goal.

Formulations of motive and purpose were so infrequent that quantitative analysis was not appropriate. Only 2 of 14 subjects ever used purpose formulations. Most subjects produced motive formulations: generic motives (12 of 14 subjects), item motives (12 of 14 subjects). (One 3-year-old produced neither a generic or an item motive.)

Examples (A) and (B) are the set of generic purpose formulations.[1]

(A) I, 70 mos; J, 70 mos: Session 1, Episode 1

			I and J are stocking the shelves.
(1)	I	Don't give, too much, to ( )	Foods are rolling all over counter.
*(2)	J	( ) (this), 'cause I'm making a lot of dinner (you have to)	J continues to give I foods.

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[1] In each of examples cited in this chapter, an asterisk (*) indicates the utterance which exemplifies the category of analysis being discussed.

(B) K, 73 mos; M, 75 mos: Session 3, Episode 2

			K wants to buy more foods, but M
*(1)	K	(huh wha), I need a big dinner tonight!	refuses her. K raises her voice, bangs table.
(2)	M	Well, this is all we got, (to give you).	Dispute continues.

All dyads in sessions 1 and 3 and most dyads in session 2 formulated a generic motive, and some dyads an item motive. Examples below illustrate generic motives for each age group.

(C) A, 38 mos; B, 38 mos: Session 1, Episode 2 (incomplete)

			B is initiating store play.
*(1)	B	m'you need some food?	B watches A walk about room.
(2)	A	I have to m -- oh god.	A knocks phone off hook. B
*(3)	B	Okay, do y' do you need some buy, some food? Do you need (to) buy some food?	helps her pick it up.
(4)	A	No.	
.			(B's efforts fail.)
.			
.			Later, B pours foods from bag
(5)	B	...You try to get all. You try. And and and	onto board and instructs A.
*		you want some food. Then give it me and I will buy it for you okay?	

(D) E, 46 mos; F, 50 mos: Session 1, Episode 8

*(1)	F	Goodbye. If I need some more tomorrow then, then I can come over here, right?	E has just given F her pizza and a coin.
			(E's response is uninterpretable.)

(E) I, 70 mos; J, 70 mos: Session 1, Episode 1

*(1)	I	You want some more stuff? (fifty) ( )	I is bagging J's items.
(2)	J	Gimme me my, (corn-flakes).	J reaches for an item on shelf.

(F) L, 74 mos; N, 76 mos: Session 3, Episode 1

*(1)	L	Yes what would you lllike.	L speaks over the counter to imaginary person, palms-up gesture, dramatic voice.

(G) K, 73 mos; L, 74 mos: Session 2, Episode 2

*(1)	L	Take anything you want.	To self, palms up, looks at food items.

Examples below illustrate item motives for each age group.

(H) C, 41 mos; D, 46 mos: Session 2, Episode 1 (incomplete)

			D seems to be trying anything to get C interested in play.
*(1)	D	You want a plant?	She spies a pot on the floor.
(2)	C	No plant, thanks.	

(I) E, 46 mos; F, 50 mos: Session 2, Episode 3

*(1)	E	D'you want some (celery)?	E is offering items to F.
*(2)	F	Yes some berry, I would like.	

(J) G, 66 mos; H, 68 mos: Session 1, Episode 3

*(1)	G	I would like some of that cake please, that's on the bottom of here.	G points to a pictured item on front of store prop.

(K) I, 70 mos; J, 70 mos: Session 2, Episode 1

*(1)	J	I want a little donut.	J puts item on counter.
(2)	I	All right, that's --	(Transaction continues.)

(L) K, 73 mos; L, 74 mos: Session 2, Episode 1

*(1)	L	(You) need some fish ma'am?	L speaks politely to K over counter.
(2)	K	Um, yes I do!	

(M) M, 75 mos; N, 76 mos: Session 1, Episode 2

*(1)	N	(well) I have to get two eggs, and a cucumber, and some milk, and chocolate milk, and ---	N is selecting items.

Most episodes contained at least one formulation of customer motive which contributed to the portrayal of the customer as pursuing a motivated course of action.[2]

Formulations: Evidence of Characters' Interacting Goals

It was very rare for a single discourse act to contain a formulation of the clerk/customer relationship. However, it was not rare to find formulations of both roles in a sequence of discourse acts in arrangement phases, when roles were negotiated. Accordingly, arrangements were examined for the incidence of substantive role formulations of one or both roles -- formulations of role names ("...storekeeper..."), of critical role activities ("..buy..sell.."), and of critical role locations ("...behind the counter"). (See Appendix 6 for procedures for coding arrangement contents, including role formulations.) It was reasoned that efforts to formulate both roles were efforts to formulate role relationships. (Arrangements which contained no formulations -- as when one role was claimed simply by "My turn", and the other role was claimed by implication -- were

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[2]The clerk was never portrayed as pursuing a salary, but a valid and coherent portrayal of a store episode does not require motivation of the clerk. The clerk's pursuit of pay explains her actions across many store episodes; within any given episode, she need merely be portrayed as intending to serve the customer. The 6-year-olds' occasional descriptions of the clerk as "doing her job" or "doing work" seem to indicate their emerging understanding of employee service.

not included as data for the following analyses.)

There is a trend in the data in Table 24 indicating that, when subject pairs produced arrangements containing role formulations, older subjects were more likely than younger subjects to formulate only one role. It is highly unlikely that the older subjects were less able than the younger subjects to formulate role relations. A more reasonable interpretation is that shared knowledge of role relations enables older subjects to arrange only one role explicitly, leaving the other role arranged implicitly. Session differences in formulation of both roles across age groups are difficult to interpret. The 3-year-olds increased in formulation of both roles from sessions 1 to 2 to 3. The 5-year-olds decreased from sessions 1 to 2 (to .00) and then remained at .00. The 6-year-olds decreased from sessions 1 to 2 and then increased in session 3. This pattern might indicate that, for the youngest subjects, practicing role-playing a given theme with any partner enables them to represent and to negotiate the appropriate complementary roles; the older subjects may background negotiation of both roles once partners share role play history (session 2); it may be only the oldest subjects, however, who recognize that re-partnering in session 3 requires a return to explicit negotiation of joint roles.

Episode Organizations

Evidence for Characters' Independent Goals

If subjects are portraying persons in goal-directed activity, the portrayed episode will be: (1) sequentially organized (play will not consist of an unpredictably organized 'collection' of actions and

Table 24

Median Proportion of Arrangements containing Formulations of Both Roles vs. One Role by Age and Session (Dyad as Subject)

		Formulations	
Session	Age	Both Roles	One Role
1	3	.33	.67
	5	.25	.75
	6	.00	1.00
2	3	.50	.50
	5	.00	1.00
	6	.00	1.00
3	3	.80	.20
	5	.00	1.00
	6	.50	.50

interactions), (2) complete (a reasonable outcome for at least one character's activity will be portrayed), (3) directed (subjects will not become absorbed in repeated cycles of ritual not directed to the accomplishment of a recognizable outcome). If subjects are portraying persons whose goals are independent, the portrayed role relations will furthermore often be (4) independent and simultaneous (each character will pursue her own goal independently, until a need for interaction arises). The organization of the portrayed episodes is examined next.

Episode completion and sequential organization. Data regarding the sequential organization and completeness of portrayals have already been presented. Table 7, in Chapter VII, contains the median proportion of episodes which were complete and which were collections. Most episodes were adequately complete (the customer obtained food). There were few collections, and these occurred only in the 3-year-old data. Therefore most portrayals were sequentially organized and complete. However, there is a trend indicating that younger subjects were somewhat less likely to construct complete, sequentially organized episode portrayals.

More detailed analyses of incomplete episodes provide further evidence of 3-year-olds' difficulties with the construction of a complete episode.

Incomplete episodes were often rendered incomplete when one participant successfully seized the other's role mid-episode; the turn switch rendered the prior episode incomplete. (See Appendix 14 for procedures for coding mid-episode turn negotiations.) The mere presence of an attempt at turn switch mid-episode, even if unsuccessful, is evidence that participants do not agree on what

constitutes episode completion. Attempts to change roles mid-episode were made by some 3-year-olds (2 pairs in session 1, 1 pair in session 2, 1 pair in session 3) and some 6-year-olds (1 pair in session 1, 1 pair in session 3). However, such attempts were successful only for the 3-year-olds. Thus some 3-year-olds sometimes abandoned an episode before the customer had purchased her items.

Many incomplete episodes were followed by a disorganized episode in which some components of a prior episode were inappropriately carried over into the next episode. (See Appendix 14 for procedures for coding cross-episode carry-overs of ownership.) 'Carry-overs' very commonly involved ownerships defined in one episode carried over into the next. In one case, for example, the 'customer' in one (incomplete) episode got only as far as unloading items at the counter and then roles were switched; she then proceeded, as 'clerk', to bag these same foods, and there were very confusing disputes over the ownership of these foods. Carry-overs can be carried over in several successive episodes, rendering interpretations of the characters' motives in any given episode problematic. Many 3-year-olds (2 pairs in session 1, 2 pairs in session 2, 1 pair in session 3) and no older subjects carried over ownerships from episode to episode, thereby rendering characters' motives unclear. (This result can be highlighted in an overlapping analysis of rearrangement procedures: As shown in Table 22, 5-year-olds and 6-year-olds almost always returned the foods, money, bags, and basket to their initial locations before initiating a new episode, while only 1 3-year-old dyad ever did, and this dyad did so infrequently.)

In sum, all dyads at some time co-constructed a complete social

episode. However, 3-year-olds were more likely than older subjects to abandon an episode before completion and to carry over claims to subsequent episodes. These behaviors resulted in many activity units where the motive of the character either was not portrayed as satisfied or was quite difficult to interpret.

Episode directedness. Examination of the internal organization of complete episodes was necessary to reveal whether participants were portraying activities directed toward an outcome. Examination of the internal organization of episodes revealed that many portrayals contained repeated 'fragments' of episodes -- repeated ritual sequences of actions or interactions. Similarly, some episodes were ritualistically repeated without an arrangement or a turn change of any kind. The dyad simply started all over again in the same roles; typically the customer added to her foods obtained in the prior episode, or bags of foods from prior episodes accumulated in odd places, Whenever there were ritual fragments and unarranged episodes without turn changes, it was very difficult to recognize the customer's goal until all repetitions were over and some outcome emerged. Thus the customer's goal was diffuse and ambiguous. Repeated 'fragments' of portrayals and unarranged, unannounced repetitions of episodes were inconsistent with motivated character portrayal.

A fragment was defined as a sequence of at least 3 actions or interactions which is repeated. (See Appendix 6 for definitions of actions and interactions. See Appendix 15 for definition of a fragment.) Only repetitions of the sequence and not the initial sequence were coded as fragments. Unarranged episodes were those

initiated without a turn change and without an arrangement of any kind (see Appendix 15). Table 25 contains the median ratio of fragments and unarranged episodes per complete episode by age and session. (There were fragments in incomplete episodes as well, but the point here is to show the ritual character of otherwise well-formed, complete social episodes.)

The frequency of fragments and of episodes without arrangements appeared to decline with age. The majority of 3-year-olds' well-formed episodes contained either at least one fragment or was initiated without an arrangement; no episode of the 6-year-olds contained a fragment or was initiated without a turn change and an arrangement. The episodes of younger subjects were thus less likely to be directed, in that they were more likely to contain repeated sequences which did not contribute to a portrayal of character activity directed to the achievement of a well-defined outcome. The 3- and 5-year-olds appeared to increase slightly in frequency of fragments and no arrangements in session 2. This pattern would suggest that experience in role playing a particular theme with the same partner may lead to the construction of well-practiced ritual routines. Session 3, then, should provide evidence of disruption in partner-specific ritual. But while the 5-year-olds fit this pattern with no fragments in session 3, the 3-year-olds' complete episodes contained more fragments in session 3 than in either prior session. It might be that the role play of 3-year-olds consists largely of 'pieces' of the portrayed event and that experience role playing that event with any partner provides useful practice in producing those pieces; the 5-year-olds may be able to produce a complete episode

Table 25

Median Ratio of Ritual Sequences per Complete Episode by Age and Session (Dyad as Subject)

		Ritual sequences	
Session	Age	Fragments	No arrangement No turn change
1	3	.11	.22
	5	.17	.17
	6	.00	.00
2	3	.50	.38
	5	.25	.25
	6	.00	.00
3	3	2.50	.25
	5	.00	.00
	6	.00	.00

without repetition of internal pieces, but with a familiar role play partner, may lapse into playful repetitions of certain sequences. The possibility that the existence of fragments in preschoolers' role play indicates different competences at different ages should be explored in future work.

Simultaneous portrayals. Because clerk and customer roles are partially independent, portrayal of grocery store contains simultaneous, unrelated clerk and customer activities as well as motivated interactions. A clerk may stock shelves or serve other customers, while the customer selects her items. In these data, subjects often used monologue to portray their characters' independence. For example, many older subjects conducted store-appropriate 'dialogues' with a pretend third party (e.g. for the clerk, another customer, and for the customer, a shopping companion). Or they accompanied independent activities with an ongoing monologue. Narrative monologue accompaniments to thematically appropriate independent activities may be invalid as realistic portrayal (usually people do not talk aloud as they work or shop), but they are effective means of making independent activity social, for displaying to the partner what one is doing.

Categories of monologue were constructed to reflect their appropriateness to the store context and their content. Consistent third party dialogues are telephone conversations of the clerk's with other customers and bosses, service dialogues with other customers in the store, and conversations of the customer's with shopping companions. Inconsistent third party dialogues are any conversations with a pretend person irrelevant to store play. In these data, they

were typically brief telephone calls to an unidentified person ("Hello? Goodbye!") and phone calls with a person not appropriate in a store scenario (mothers, babysitters, Woody Woodpecker). Consistent accompaniments are accompaniments to (e.g. iterations) or narrative descriptions of ongoing store activities such as selecting items, stocking shelves, counting money, pricing items, bagging. Inconsistent accompaniments are descriptions of any activity inconsistent with store play. Examples are making "oink" sounds, describing "llama's family", plans for birthday cake, closing a "lunch" bag. Consistent other monologues are assertions of intent to the self regarding store activity that is not ongoing and idle remarks about the store setting to the self. Inconsistent other monologues are comments about accidents (e.g. fallen objects) and assertions of intent to the self regarding nonstore activity that is not ongoing (e.g. where to put a lunch bag). (See Appendix 16 for procedures for coding monologue functions.)

As presented in Table 26, thematically consistent monologues (Total) were produced less often by 3-year-olds than by older subjects. Only 5-year-olds and 6-year-olds created third-party thematically consistent conversations with other customers and with bosses, as the following examples illustrate.

(N) G, 66 mos; H, 68 mos: Session 1, Episode 1

(1) G	"mmmmmmmmmm Hello? Yes, I'll order it, you're welcome. (Hello, yes, very good), stay on the line. Are you still there? Okay! In a minute,	G dials store phone. H is selecting foods. G then puts phone down. G picks up phone again. G puts phone down. G picks up phone again. H comes to counter with full basket.

Table 26

Median Proportion of Monologues which were thematically consistent or thematically inconsistent by Age and Session (Dyad as Subject)

		Thematically consistent				Thematically inconsistent			
Session	Age	Third party	Accompaniment	Other	Total	Third party	Accompaniment	Other	Total
1	3	.00	.38	.00	.36	.30	.20	.12	.68
	5	.12	.52	.17	.78	.11	.00	.05	.21
	6	.09	.46	.04	.62	.20	.00	.20	.38
2	3	.00	.26	.00	.26	.24	.28	.18	.74
	5	.30	.10	.04	.61	.20	.00	.14	.39
	6	.04	.43	.14	.76	.24	.00	.12	.24
3	3	.00	.40	.04	.40	.19	.17	.19	.60
	5	.25	.38	.04	.71	.07	.10	.08	.28
	6	.08	.62	.00	.71	.17	.00	.08	.29

There was a significant difference for Thematically consistent/Total in Session 3 ($H = 7.7142$, $p < .049$; 3-year-olds < 5-year-olds, Fisher, $p = .025$; 3-year-olds < 6-year-olds, Fisher, $p = .025$)

in a minute, I have a customer, so could you wait a minute?"	H sits down, waiting for G.
	G puts receiver down. H comes back to counter.

(O) G, 66 mos; H, 68 mos: Session 1, Episode 3

(1) H "Dingalingalingaling. Wait a minute boss."	H smiles, answers phone. G unloads items onto counter.

(P) K, 73 mos; L, 74 mos: Session 2, Episode 1

(1) L "Yes okay. swhuuuu"	L reaches hand out as if giving something to a customer. L opens then closes cash register, taps cash register numbers.

(Q) K, 73 mos; L, 74 mos: Session 2, Episode 1

(1) K "Mommy I'm home, here's all my change. Here y'are, five cents, five cents. Twenty-five cents, twenty-five cents, ten cents, twenty, ten cents, five pennies and ( )"	K goes off camera.

Most subjects, however, were likely to create a phone conversation with an ambiguous or inconsistent third party.

Most subjects produced appropriate accompaniments to independent store activities.

(R) B, 38 mos; E, 46 mos: Session 3, Episode 1

(1) E Can I count these? 1 2 3 4 5 6 7 8 9 10	B is unloading items.
11 14 16 17 18 19 20	E seems to count by waving
11 17 14 16 18 19 20	bag over items.
11 14 16 18 19 20 11	
14 16 11 ( ) 18 19 20.	
Okay.	

(S) G, 66 mos; H, 68 mos: Session 1, Episode 1

(1) G	(one, two, three, three, four), ( ).	G mutters as she puts items into basket.

(T) K, 73 mos; L, 74 mos: Session 1, Episode 1

(1) K	"so you want -- 80 cents, 99 cents, (20) but oh -- (70 cents) and my my my, and, n' twenty".	K begins to remove items from basket on counter one by one, chanting. An item drops.

(U) K, 73 mos; L, 74 mos: Session 1, Episode 1

(1) L	"Now look for something to eat. Ah ( ) (I want that)"	L goes to board with basket in hand.
		K interrupts to supply L with money.
	"..I'll take the life savers, and the carrots, um and oop, I (have to), gotta take a pie, small pie..."	L resumes selecting items.

No 6-year-old (and 5-year-olds only in session 3) ever produced inappropriate accompaniments to independent, non-store activities. (The infrequency of thematically inconsistent monologues must be in part an artifact of the data selection procedures: Any substantial sequence of non-store play was excluded from analysis.)

In sum, thematically appropriate accompaniments to independent activities were common at all ages, while older subjects seemed likely to produce thematically consistent dialogues with a pretend third party. Thus most subjects were sometimes using monologues to portray their characters' independence. Older subjects appeared more able to represent the clerk in relation to more than one (present) customer. These results indicate that some monologues have a social function in

the interactive portrayal of partially independent roles.

Evidence for Characters' Interacting Goals

Analyses of episode organization were designed to provide evidence of subjects' abilities to portray motivated interactions. The frequency with which turns at roles were changed in each rearrangement is examined as evidence that partners shared a representation of their character identities as complements. Data already reported regarding the incidence of parallel or solitary activity are reexamined as evidence of undifferentiated roles. Complete social episodes were examined for the incidence of well-formed, validly portrayed clerk-customer interactions.

Turn changes. A change in roles following each round of store play is evidence that each participant in the pair represents her just-completed role as the complement of the role she now wishes to assume. (See Appendix 17 for procedures for coding turn changes.)

As displayed in Table 27, 5- and 6-year-olds almost always changed roles after each complete episode, while most of the 3-year-olds' complete episodes were not followed by an exchange of roles. Thus older subjects demonstrated, in the readiness with which they changed roles, greater understanding of the complementary relation between roles.

Collections: Undifferentiated roles. Data regarding the incidence of social vs. solitary or parallel activity units (episodes, incomplete episodes, and collections) were presented in Table 7, Chapter VII. Most episodes and collections were social. Parallel/solitary activity units, though infrequent, were produced

Table 27

Median Proportion of Complete Episodes which were followed by an Exchange of Roles by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.33	.33	.17
5	.88	1.00	1.00
6	.88	1.00	1.00

only by the 3-year-olds.

The existence of any parallel or solitary activity takes on significance when the interactive task is role play. It is very difficult to portray more than one person oneself, and, as illustrated below, the result for these 3-year-olds was the collapse of differentiated roles.

(V) A, 38 mos; B, 38 mos: Session 1, Activity unit 3

(Parallel/solitary Collection)

(1)	B	...she didn't know what, I don't, care I'm the buyer. And there's a store, here. (There's another playroom,) Go back, here -- and the and no put on here, on the counter. Put on the counter. I'll show you.	B is on store phone. A is is putting items in basket. A approaches side of store with basket. B remains on phone, taps counter repeatedly. B tries to take basket from A.
(2)	A	No.	A rebuffs B.
(3)	B	Right there. Right on here, okay?	B bangs on counter. A touches, then knocks on one of the outside store shelves. A then appears to spy paper bag on floor. A picks up bag, opens it, starts to put food from her basket into bag, then turns back to board and puts food from board into bag.
(4)	B	You have to.	A glances at B, returns to bagging. B opens up a toy food box, peers inside.
(5)	A	Let me (uh) have the bag. 'Cause I need to fill (the)=	A runs over behind counter, grabs a second paper bag, brings it back to food board.
(6)	B	But I'm the buyer so you have t-- 'Kay. ('kay).	B is annoyed. A tosses one partially filled bag at B. B takes it and dumps it out on counter. A watches B briefly. B puts empty bag on floor behind counter. A opens her new bag. B comes out of store and tries to take A's basket.
(7)	A	no NO!	A protests.
(8)	B	Okay. Then you nave	B returns to store, gestures

	to bring it here. [(You have to) bring it here.	emphatically.
(9) A	[( ) I'm doing that.	A continues to shake open bag. A turns back to board, puts bag down, starts to take food from basket, then takes food from board and puts it in bag. Meanwhile, B takes coins out of cash register.
	You have to, talk to (Johnny), 'cause he's bad. (and)	
(10) B	(uninterpretable list of numbers and letters), 1, A, 1, I, 2, 'kay? 1 S. Okay oh dear oh dear	B is arranging coins on counter. A is still bagging at food board. A is trying to dump whole basket into bag. B drops coin. A comes to counter, takes a coin, tries to put it in cash register.
	No, I'm [the seller.	
(11) A	[I'm (put it).	
(12) B	Okay.	B closes cash register.

There is no question that B makes an effort to organize an episode that might have become, had she been successful, a complete social episode. Nevertheless, in the face of resistance, she retreats into activities as sequentially disorganized as A's: she plays with a toy food (4); she 'counts' money (10). Her behavior can be contrasted with D's in (W), who proceeds to carry out both customer and clerk actions when C refuses to play.

(W) C, 44 mos; D, 46 mos: Session 2, Episode 2

		D has been trying to get C to play store. D now goes to food board, gets items and takes them back to counter, begins to bag them from behind counter. D may tap a number on register.
(1) D	Take, some and I'll put it, in a bag, and I'll put some money in (the bag)	
	(Talk deleted: D tries to catch C who runs by.)	D opens register drawer, takes out two coins, puts them in bag, closes drawer. D puts another food in bag, then takes more coins from register and bags those. D folds bag, tries again to involve C.
(2) D	Here, here's your bag.	

(3)	C	I don't need it!	
(4)	D	[Oh.	
(6)	C	[(I) (gonna/gotta) call someone.	C picks up board phone.
(7)	D	This is my lunch. (So /I will) put my lunch up here.	D folds bag, looks up at inner store shelves.

When a complementary episode gets organized with only one participant doing both roles, the demands on partners to coordinate their interactions are minimal. (See also "Doer-observer accomplishments" in Appendix 9.)

Clerk Intrusions: Undifferentiated Roles. While the customer selects her items, the clerk has little appropriate to do except wait and watch, or serve other customers on the phone or in the store. It was common at all ages that the clerk intruded upon the customer's independent activity: she might deny the customer the right to select an item; she might insist that the customer select an item; she might demand that the customer come to the counter pronto.

Clerk intrusions were not common enough to permit quantitative analysis. However, inspection of the justifications which clerks used in their intrusions and customers used to reject intrusions indicate age differences in children's representations of their characters' rights. The justifications of 3-year-old clerks were almost always arbitrary, or by fiat: "You can't have ...," "I don't want you to ...," "You have to ...". These clerk intrusions and justifications by fiat resulted in clerk portrayals which better resembled hassled mothers. Subjects appeared to understand that clerks had certain rights over the foods but confused these with parental rights exerted

over foods in a variety of nonstore and store contexts. 3-year-old customers often did not dispute those rights, even if they tried to circumvent them. The justifications of older subjects' clerks and customers often included efforts to formulate store-appropriate procedures (e.g. "These are on sale," "These come free," "I can buy different things from you"). These justifications were not necessarily used in appropriate store contexts (e.g. a clerk might insist that a customer buy an item because it was "on sale"), and there was still evidence that clerks were attempting to exert rather arbitrary rights, but the negotiations better resembled store-appropriate discourse, and the customer was better portrayed as having her own rights.

In (X), D tells C when she has selected enough. So does E in (HH), justifying her request with parental rules not appropriate to store contexts.

(X) C, 41 mos; D, 46 mos: Session 1, Episode 1

(1)	D	Put just some. That's all you can, put in. Now bring it over.	C is selecting items. C brings basket to store.

(Y) E, 46 mos; F, 50 mos: Session 1, Episodes 7 and 8

(1)	F	I need two pumpkins.	F is selecting items.
(2)	E	Faye, Faye, no you only need one at a time.	E turns to look.
.			(F then successfully negotiates "one for me and one for llama.")
(3)	F	I need pizza.	
(4)	E	Nope, you can't have it, [until you eat	E makes emphatic palms-up gesture.
(5)	F	[uh	
(6)	E	all of those things, okay?	E gestures toward foods on shelf.
			(F drops request for now.)

5-year-old clerks almost never intruded upon customers. (Z) illustrates the rare instance.

(Z) G, 66 mos; H, 68 mos: Session 2, Episode 4

(1)	G	That's enough I think, lady.	G looks at H's overfilled basket.
(2)	H	(okay)	H keeps adding more items. G readies bag, watches H, waits.

The 6-year-old clerks were sometimes intrusive but not necessarily successful at it. Note the store-relevant justifications used by clerks and customers.

(AA) M, 75 mos; N, 76 mos: Session 1, Episode 1

(1)	N	Aren't you ever gonna? d' b', you don't have to buy everything.	N waits behind counter. N leaves store, approaches M.
(2)	M	I (giggle) I'm not. I'm buying all my groceries!=	M continues loading basket.
(3)	N	=Buy some butter.	N holds an item up to M.
(4)	M	Ya. Don't tell me what [to buy.	M takes it and baskets it. M gently shoves N toward store.
(5)	N	[carrot.	N is pointing to an item.
(6)	M	[uh	N picks up item,
(7)	N	[You certainly need that!	shakes it at M.
(8)	M	I know. (giggles) (It's/that's) all the carrot we have.	M takes it, baskets it. N returns to store.

(BB) K, 73 mos; M, 75 mos: Session 3, Episode 2

(1)	M	Here's all your stuff!	M tries to hand K basket.
(2)	K	Oh but there're some things down there.	K points to items off camera. M looks.
(3)	M	Mmhmm. But you can't pay for those they're not on sale.	
(4)	K	wellllll	
(5)	M	These we have to put back.	M takes top item from basket, puts it on shelf.
(6)	K	Why? [(do we)	K whines.
(7)	M	['Cause other	M puts back more foods.

people have to buy.
(8) K Ahhh! But I need them!
I need them!

(negotiations continue....)

Character interactions. It is possible for an episode to be social without focused interaction. Characters can alternate contributions to role play (the customer unloads, the clerk prices, the clerk bags, the customer takes the bag) and never engage in interaction. Complete social episodes were examined for the incidence of valid interactions. A valid store interaction was defined on the bases both of intuitions and the data. Valid interactions included (listed in order of common sequence): customer calls ahead to store, customer and/or clerk greets other, customer requests help from clerk and/or clerk offers help, clerk informs customer of total cost and requests pay and/or customer pays clerk, clerk gives customer change, clerk hands customer bag, clerk and/or customer thanks other, clerk and/or customer bids other farewell, clerk calls customer re upcoming delivery, clerk delivers foods to customer. An interaction fitting each of these category types occurred at least once in some complete social episode. When examining the table below, it is important to consider that the above set of possible interactions is large; there are many appropriate occasions for interaction.

From the data in Table 28, it appears that characters were more often portrayed in valid interaction by the 5-year-olds and 6-year-olds than by the 3-year-olds. There were no apparent patterns of session or age x session effects. It might be expected that role play experience with a particular partner might facilitate portrayal of interaction in session 2 and that repartnering in session 3 would

Table 28

Median Proportion of Actions and Interactions which were Valid Interactions per Complete Episode by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.12	.02	.06
5	.38	.35	.53
6	.38	.66	.18

disrupt interaction portrayal, but only 6-year-olds displayed this pattern. The 3-year-olds essentially showed little change from session to session; they were consistently producing very few valid interactions. The 5-year-olds showed no change from sessions 1 to 2 and increased in session 3. Why repartnering was not disruptive for them but apparently was for the 6-year-olds is not apparent.

Summary and Discussion

The analyses of character portrayals reported in this chapter indicate that there is development in children's understandings of motivated action and interaction over the age range of 3 years to 6 years of age. Although many of the methods developed when applied to these data resulted in nonsignificant age differences, there were consistencies in trends which recommend the future application of these methods to new data. The results demonstrated that role play interactions are a valuable source of evidence regarding young children's representations of social episodes.

In summary, analyses of arrangement contents indicated that subjects were primarily arranging roles, by name or by a role's defining activity. There was little arranging of theme or setting identities, although when these were arranged, they were appropriately arranged in earlier sessions when subjects might not be quite sure what they were going to do. There was little arranging of specific role actions, character motivation, or character ownerships, although when these were arranged, they were arranged by the youngest subjects only (a finding to be discussed shortly). Older subjects were more organized in setting up the fantasy scene and thus demonstrated the

capacity to anticipate the relation of the setting and toys to the actions and interactions to be portrayed in the next round of play.

Since these subjects were assigned the role play theme, interpretation of these arrangement data is made difficult. It appears that the children were not arranging what was 'given' to them -- theme, setting identity, object identities -- but were arranging only what was essential for the role play to begin -- who should play which role. The thematic assignment, in conjunction with the richly supplied play setting, may have reduced the need for joint arrangements and supported the belief that what was to be done was obvious. These preschoolers' capacities for social planning of joint pretense may have been obscured in this study context. It is very interesting that the youngest subjects were the only ones to plan specific role play actions. It may be that the less well learned a play theme is the greater is the need to formulate it, for oneself as well as for one's partner; the better learned it is, the more likely a child may assume (not necessarily appropriately) that 'everyone knows' what to do. Thus the youngest subjects actually appear less egocentric in that they communicate more about the store script in arrangements than do their older peers.

The characters' independence and independent motivations were somewhat more effectively and consistently portrayed by older subjects. Almost all subjects portrayed the customer as motivated by a need for food, if only for an item.[3] Older subjects were somewhat

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[3] It was very unusual, however, for the customer to have a formulated purpose for the food; the customer was not usually portrayed as purchasing food in order to cook it, to eat it, to feed others with it. Portrayal of a store episode does not require such a

more likely to establish and elaborate a role in the arrangement phase by role identity or role activity and less likely to do so by role location, and thus older subjects were more effective in establishing characters as persons with names or with things to do; of these three role formulations, role location (e.g. "You go there"), used only by the 3-year-olds, is least effective in differentiating the 'real' child from the character she is becoming. Older subjects' episodes were more likely to be complete, less likely to contain repeated ritual fragments or to have been unarranged without role change, less likely to contain ownerships carried over from prior episodes, and thus the customer's goal was more often accomplished and more often defined and contained within a single episode. Almost all subjects produced character-appropriate monologues, although older subjects as clerks were more likely to portray dialogues with other customers thereby constructing the independence of their roles from the relationship with their customer partner.

The characters' complementary relationship was more successfully portrayed by older subjects. Only the older subjects switched roles smoothly at the end of each episode, indicating that they easily anticipated playing both roles. Parallel or solitary portrayals occurred only in the 3-year-old data. Most clerks at all ages intruded inappropriately upon their partner's food selection, but older customers were more likely to justify pursuing their own course of action. The portrayals of older subjects contained a greater proportion of valid interactions.

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verbalization, so absence of purpose formulations is ambiguous as evidence of lack of representation of customer goals.

The pattern of results reported in this chapter provides some clues about the course of development of social plan knowledge. Progress was observed over age in the resemblance of subjects' role play to adult social episodes (as presumed in the endpoint analysis). The ability of all older subjects to represent the completion of just a single round of customer purchases within an episode, without ritual repetitions, indicates an increasingly well organized concept of an episode as a unit of social life, at least from one participant's perspective. The greater abilities of older subjects to represent valid interactions, relevant rights of both characters, appropriately simultaneous activities, and interactions with relevant persons other than the partner's character all indicate emerging representations of roles as inherently relational.

Were subjects portraying persons in store episodes or were they merely portraying, as El'Konin (1966) argued, context-appropriate activities? Subjects appeared to know more about persons in social episodes than El'Konin's analysis of preschoolers' role play would lead us to expect. All children at some point formulated some kind of motive for the customer. Furthermore, as just discussed, many episodes were social, well-organized, and complete. To be sure, many subjects, especially the younger subjects, were at best only inconsistently portraying the motivated actions and interactions of 'persons.' Consistent with El'Konin's analysis, the episodes of the younger subjects were often disorganized, and many episodes of the 3- and 5-year-olds contained ritual fragments. Even older subjects, like all subjects, only infrequently and unpredictably formulated some kind of motive. Thus much of these subjects' role play did indeed resemble

the portrayal of context-appropriate activities, but close examination also revealed evidence of emerging knowledge of persons' motives in everyday social episodes.

El'Konin's distinction between the role play of persons and the role play of activities appears to have as its cognitive correlate the distinction made in Chapter IV between social plan knowledge and social event knowledge. Social plan knowledge enables representations of persons' goals in interaction. Social event knowledge contributes only to representations of sequences of social behavior. To explore further the developmental relations between social event knowledge and social plan knowledge, further analyses of the children's episodes as they reveal their knowledge of sequences of store events is reported next.

CHAPTER X

SOCIAL EVENT KNOWLEDGE

In the introductory chapters, it was suggested that shared event knowledge (context-appropriate sequences of interactive behaviors) could enable young children to portray coordinated social behaviors. Even if children were unable to represent characters' goals and interacting goals and even if children were not able to represent and coordinate parters' perspectives in the co-construction of a shared plan for their play, shared event event knowledge could permit "collaboration in non-abstract thought" (Piaget, 1926/1955). In this chapter, subjects' knowledge of the sequence of store events is inferred from analyses of complete store episodes. In the last section of this chapter, these results are related to the analyses reported in Chapters VII, VIII, and IX.

Complete episodes were examined for their complexity, the appropriateness of their sequential organization, and their coherence. For the reader's reference, Table 29 contains a summary of analyses and results.

Complexity of Complete Episodes

Two analyses of episode complexity were devised.

Actions and Interactions within Episodes

For the first analysis, a standard set of actions and

Table 29

Social event knowledge: Summary of analyses and results

Characteristics of social episodes	Trends in data		
	Age	Session	Age x session
Complexity			
Different actions and interactions	Increase with age	—	—
Secondary store characters	Increase with age	—	—
Sequential organization			
Invalid sequencing	(infrequent at all ages, all sessions)		
Coherence			
Invalid actions and interactions	Decrease with age	—	—
Secondary non-store characters	Decrease with age	—	—

interactions was compiled on the bases both of intuition and of the data themselves. Only actions and interactions which normatively occur at a particular point in a sequence of actions and interactions were included in these analyses. Thus, any event which could appropriately occur at any point in the episode were excluded from this analysis -- for examples, phone calls (regardless of their appropriateness) and service to pretend customers.

Table 30 contains the standard set of actions and interactions in the two most common sequences. (Analyses of sequencing are found in a later section.) Actions or interactions followed by an asterisk (*) could occur more than once per episode, but they were nevertheless counted no more than once per episode. (For "Thanks" to be coded at all, it must have occurred after the clerk received payment for goods or the customer received change or the customer received her bag or the customer received her delivery.)

Table 31 contains the median number of different actions and interactions per complete episode.

As indicated in Table 31, there is a trend in sessions 1 and 2 indicating that older subjects constructed more complex episodes. (Inspection of the raw data shows that, while some older subjects produced episodes no more complex than their younger peers, the longest, most diverse episodes were found only among the older subjects.) Experience role playing with the same partner (session 2) did not appear to facilitate complexity of episode for subjects of any age, and repartnering (session 3) disrupted play for many subjects.

Table 30

Standard actions and interactions in store episodes

CLERK		CUSTOMER
(receive call)		call ahead to store
	take basket	travel to store
greet customer	travel to store	greet clerk
greet customer	greet clerk	take basket
get requested items	request item(s)	select items
		put items on counter
price items		
total items		
request pay		
	pay clerk	
give change	(receive change)	
bag items and/or	bag items	
		return basket
hand customer bag	(receive bag)	
thank customer *	thank clerk *	
bid farewell *	bid farewell *	
	travel home	
call re delivery		
deliver		
thank customer *	thank clerk *	
bid farewell *	bid farewell *	

Table 31

Median Number of Different Actions and Interactions per Complete Episode by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	7.9	5.8	6.5
5	8.8	9.0	8.0
6	9.8	9.0	6.0

Secondary Store Characters

A second measure of episode complexity was the number of secondary store characters created for the episode other than the primary roles of clerk and customer (e.g. other customers, bosses). (See Appendix 18 for procedures for coding secondary characters.)

The data in Table 32 are consistent with a developmental increase in the number of thematically appropriate secondary characters. There are no apparent session or age x session trends.

Sequential Organization

It has already been reported that only younger subjects produced collections, and therefore older subjects appeared to be more likely to produce sequentially organized episodes (Table 7, Chapter VII). A more detailed analysis of sequential organization was devised using the standard list of actions and interactions presented above. There are many possible variations in sequencing of these actions and interactions which are cumbersome to represent, and decisions about the acceptability of any portrayed sequence were often left to the coders' judgment of acceptability. (See Appendix 6 for details of coding procedures.) Note that if a dyad omitted or reversed some step and then repaired the omission or reversal, only the final version of the portrayal was coded.

The data in Table 33 indicate that invalid sequencing of otherwise valid actions and interactions was infrequent at all ages. There were no apparent age, session, or age x session trends.

Table 32

Median Number of Secondary Store Characters by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.0	.3	.3
5	1.0	1.0	.5
6	1.5	1.0	2.0

There was an effect for age in session 1 ($H = 4.8000$, $p < .048$; 3-year-olds < 5-year-olds & 6-year-olds, Fisher, $p = .05$)

Table 33

Median Proportion of Actions and Interactions which were Valid but Invalidly Sequenced per Complete Episode by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.01	.04	.00
5	.09	.08	.14
6	.00	.11	.00

Coherence

It was reported in Chapter IX that the monologues of older subjects were more likely to be thematically appropriate. Two additional analyses of coherence were devised.

The first analysis was devised from the standard set of actions and interactions presented earlier. Not all of subjects' store play could be described by one of these actions and interactions. Almost always, inadmissible data could be described as invalid versions of store activity. The most frequent included: clerk exerts arbitrary rights over foods during food selection, clerk bags money, someone eats foods (when it did not occur at the end of the episode and when there was no evidence of a joke or a portrayal of a violation of convention), clerk goes home with customer. (There were, however, many occasions when steps were missing. Many steps are optional, and their omission posed no problem to the validity of the portrayal. Some omissions, however, were of necessary steps. The 3-year-old customers, for example, never paid, although the clerk often gave the customer "change". While such an omission renders related events invalid in context, nevertheless if the remaining steps were recognizably appropriate (e.g. if "change" involved the clerk's handing the customer money), they were considered valid for this analysis. In this regard, the following analysis tends to exaggerate the coherence of subjects' store episodes.)

In Table 34, there is evidence of a decline with age in invalid acts. There is no interpretable pattern of session or age x session differences.

A second measure of episode coherence was the number of secondary

Table 34

Median Proportion of Actions and Interactions which were Invalid per Complete Episode by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	.17	.53	.40
5	.08	.02	.00
6	.00	.04	.09

There was an effect for age in session 3 only ($H = 4.5714$, $p = .067$).

nonstore characters (Mommy, frogs, babysitters). A lesser number of nonstore characters was taken as evidence of greater coherence of store episode. (See Appendix 18 for coding procedures.)

In Table 35, there is evidence of a decline with age in the intrusion of episode inappropriate characters and thus an increase with age in coherence of episode. This result is strengthened by the observation that only 6-year-olds ever complained about such intrusions, as the following example illustrates:

(A) L, 74 mos; N, 76 mos: Session 3, Episode 2

(1)	L	Pretend (giggle) I'm a little frog in the store. "Here's your money sir." I'm a little kitty cat. meow meow. Would you like a, a can of, tuna fiss?	L kneels behind counter. L tries to give N money with her teeth. N takes it. L looks at fish pictures.
*(2)	N	No tuna. Lisa, come on.	
(3)	L	(giggle) Okay.	L seems embarassed.

Conclusions

There is evidence that the 3-year-olds knew somewhat less about the events in store episodes than did the 5-year-olds and 6-year-olds. The 3-year-olds' complete social episodes were less diverse; their episodes contained a higher proportion of invalid acts; their secondary characters were more likely to be thematically inappropriate or ambiguous. However, there were no age differences in sequential organization. Although 3-year-olds were less likely than older subjects to organize successfully a complete social episode (Table 7, Chapter VII), when they did, they were no less likely to sequence actions and interactions appropriately. (It should be noted,

Table 35

Median Number of Secondary Nonstore Characters by Age and Session (Dyad as Subject)

	Session		
Age	1	2	3
3	1.0	.9	.8
5	.5	.7	.5
6	.4	.8	.5

There is an effect for age in session 1 ($H = 4.5083$, $p < .067$; 3-year-olds < 5-year-olds & 6-year-olds, Fisher, $p = .05$)

however, that 3-year-olds were sequencing less complex episodes.) Thus, even the 3-year-olds had some knowledge of the sequence of events that normatively occur in stores.

The methods that were developed here for inferring social event knowledge from observations of interactive role play produced some useful data. How much of what these preschoolers knew about stores was merely social event knowledge and how much was social plan knowledge? In Chapter IX, it was reported that virtually all subjects at some point motivated the customer by a need for food, even if only a need for a single item. Virtually all dyads produced together at least one complete social episode in which the customer selected items and eventually received them from the clerk in a bag. Thus even 3-year-olds sometimes revealed a reasonably appropriate representation of a rational basis for the customer's behaviors. Subjects appeared to know less about clerks. When a 3-year-old clerk explains firmly to her partner, "I have to pay," and marches into the store, pushes cash register keys, opens the cash register, takes out a coin, and bags it, we cannot help but think she is guided not by social plan knowledge but merely by social event knowledge of the sequence of behaviors she has observed clerks do in stores. The evidence indicates that, while subjects indeed knew something about persons' motives in store episodes, that knowledge did not inform many of the behaviors they portrayed; portrayals contained many 'non-rational' sequences of behavior.

In Chapter IV, it was suggested that social event knowledge could facilitate "collaboration in nonabstract thought." Each participant's contribution to the event sequence serves as a supportive context for

the next step, and structured settings provide additional support for participants' recall of context-appropriate activity. Social event knowledge could, in the same way, facilitate coordination of interactive role play. However, role play, in contrast to everyday interaction, makes demands on participants to make unusually explicit agreements regarding the nature of the activity. Where there is no supportive context (i.e. no miniaturized setting), interactions cannot easily proceed without some agreement, explicit or implicit, regarding the symbolic function of objects, settings, gestures, actions, talk. These agreements require representation and coordination of participants' perspectives, and thus such role play would entail "collaboration in abstract thought." How cognitively complex was the role play of subjects observed in this study?

As reported in this chapter, subjects had at least some knowledge of store events and the sequence of those events, and their interactions were supported by an elaborately stocked miniature store setting. Thus social event knowledge could explain much of subjects' interactive success. Furthermore, results reported in Chapter VIII indicated that subjects were making pretense agreements very infrequently. While most subjects did reveal an ability to reach agreement on a symbolic pretense transformation, they did so infrequently and very often did not then make use of the agreed plan in subsequent play. Thus the supportive context and subjects' culturally shared event knowledge of stores may have made the successful organization of store episodes possible without a need for (at least a consistent need for) representing and coordinating either participants' or characters' perspectives -- certainly not

perspectives of the complexity of a social plan. Indeed, as reported in Chapter VII, only one dyad ever attempted to negotiate agreements on a comprehensive social plan for their play.

Whether these data indicate an inability to represent and coordinate co-participants' social plan perspectives in order to organize successful role play cannot be determined from this data base alone. As discussed in Chapters VIII and IX, it may be that the support of the rich play context and the children's shared knowledge of stores (whether social plan or social event knowledge) made it unnecessary for the children to negotiate symbolic play agreements and thus obscured rather than revealed their social cognitive and communicative competences. Comparative observations of children in unstructured play settings, necessitating symbolic play agreements, are necessary to determine when preschoolers are indeed capable of co-constructing symbolic social pretense or if play becomes less coherent and successful without contextual support.

CHAPTER XI

DISCUSSION

The purpose of this project was to develop an analytic approach to the study of children's interactive role play. Examination of available studies of role play indicated a need for a social-cognitive model that could provide a motivation for systematic, detailed observations of children's role play interactions. Prior to this report, most studies were either examinations of correlations between ratings of interactive play complexity and performance on perspective-taking tasks or qualitative discussions of social-cognitive and communicative competences revealed in brief excerpts from videotaped role play. The available data were not adequate to resolve controversies regarding the extent of preschoolers' understandings of other persons and of social interactions nor of their communicative competences in representing and coordinating partners' perspectives in order to co-construct symbolic portrayals of persons in interactions. It was the intent in the present work to produce methods which, if applied in the future to a larger (and, as discussed below, differently organized) data base, could help to resolve existing controversies over preschoolers' competences and the course of their development.

Background

Three domains of social-cognitive and communicative competence

have been distinguished in the literature on interactive role play: the abilities to co-construct shared agreements on play themes and play plans, to frame a state of pretense, and to motivate a coherent portrayal of persons in interaction.

Negotiating shared play agreements requires perspective taking. Studies to date, including observations of children at play and correlational analyses of social play complexity and perspective-taking skills, indicate that interactive role play is a context in which peers are learning to recognize and coordinate partners' perspectives. But these studies do not provide a detailed developmental account of children's use of perspective-taking skills in role play. For example, observers have reported that preschoolers make efforts to negotiate plans for role play, but they do not report on the structure or function of those negotiations. Some investigators assume that any reasonably coherent role play necessarily requires, and therefore reveals, perspective-taking skills, but an attribution of such competences even to 3-year-olds is at odds with most of the literature on social-cognitive and communicative development (cf. Shantz, 1975). Detailed descriptions of children's interactive role play were needed to help resolve inconsistencies in claims regarding young children's competences in negotiating play agreements.

The symbolic framing of a pretense state with a partner also requires negotiation and coordination of plans: children must agree on 'where' they are, 'who' they are, 'what' they are doing. Reports of children's stories and children's play seem to indicate that, while even young preschoolers make occasional efforts to construct pretense

states, older preschoolers are still not consistently maintaining fantasy states when playing or telling a story. If children have difficulty maintaining pretense, this suggests that they have difficulty making, or at least using, agreements on pretense states. Reports of children's inconsistent construction of pretense, which tend to emphasize young children's inabilities, needed to be reconciled with reports of children's perspective-taking skills, which tend to emphasize their abilities. Systematic examination of children's communicative strategies for framing pretense in interactive role play were needed.

Evidence of young children's abilities to portray motivated persons comes from a range of research efforts, none of which directly addresses children's understandings of persons' goals in interactions. Studies of children's interactive role play, solitary doll play, stories, and script knowledge report for young preschoolers a greater likelihood of nonsocial portrayals (absence of complementary roles), stereotyped social sequences, and absence of motivated plots with an emergence of motivated portrayals of interactions over age. Since this pattern of findings was gleaned from studies whose purposes were diverse, it became important to examine in detail the contents of children's interactive role play portrayals, as these reveal their understandings of motivated social relationships.

Purpose of the Present Research

In an effort to integrate what has been reported and discussed to date regarding interactive role play, a developmental model of the social-cognitive and interactive demands of collaborative role play

was constructed as a basis for research. The constructs of 'social episode' and 'social plan' were introduced to represent coordinated activity by a particular set of individuals in a particular setting. A social episode is a common unit of activity in the organization of everyday social life and one frequently portrayed by children in role play. Interactive role play is one kind of cooperative social episode. In cooperative episodes, participants construct 'with' social plans. With plans are publically negotiated in the arrangement phase of the episode and are then revised as needed during the accomplishment of the episode. Representation of partners' social plans -- representation of their perspectives -- and coordination of discrepancies among social plans is critical to cooperative negotiations. In role play episodes, there is an embedded episode portrayed within the 'real' cooperative episode. The organization of the embedded episode differs with its content, although children commonly portray complementary episodes in which there is some instrumental relation between the portrayed characters.

The development of interactive role play was hypothesized to resemble the course of development of peer interaction described by Piaget (1926/1955). The social episodes of very young children should initially resemble collective monologue and consist of disorganized role play "collections," some of which are appropriate to the pretend context but few of which are organized as sequences of coordinated social behaviors. Progress in portraying coordinated roles should occur when children have social event knowledge of the actions, interactions, and sequencings appropriate in particular social contexts. Interactive role play would then resemble Piaget's next

stage, collaboration in non-abstract thought, if the play were supported by a miniature version of the 'real' setting just as everyday contexts support everyday interactions by providing reminders of what to do. 'Roles' could be portrayed, even if children could not represent either their partner's or their character's perspectives (their social plan representations of the social episode). In terms of El'Konin's (1966) analysis, role play in non-abstract thought would resemble the portrayal of activities, not of motivated social relationships. But any role play undertaken in an ambiguous play context would not be successful unless participants could reach agreements on symbolic transformations of setting, role, and object identities, and such agreements require perspective taking and perspective coordination. Furthermore, any role play of motivated actions and interactions requires the taking of the characters' perspectives. Participants must understand why persons occupying episode roles act as they do and then 'motivate' the portrayal appropriately. Interactive role play consisting of the motivated portrayal of persons in social episodes, accomplished through participants' agreements regarding symbolic setting, role, and object transformations, typifies Piaget's last stage, collaboration in abstract thought, as well as El'Konin's second stage, portrayal of motivated social relationships.

Summary and Interpretation of Data

The results of this study provide evidence for this developmental model, although to conclude that there are 'stages' in the development of peer interaction is to simplify apparently complex

relations among developing social event knowledge, social plan knowledge, and interactive competences.

Sociocentrism

Subjects at all ages demonstrated an eagerness to interact with their playmates. Children initiated 73% to 90% (median proportion for each age group in each session) of their discourse sequences to their partners, and 73% to 93% (median proportion) of these initiations were successful in securing a response. These rates of interactive intent and interactive success are as great or greater than any reported in previous research on children's "sociocentric" intentions (Garvey & Hogan, 1973; Gearhart & Shatz, 1978; Greif, 1977; Mueller, 1972). Furthermore, children of all ages appropriately worked harder at communicating with their partner when partner and task were novel (session 1) and when partnered with someone different (session 3). These data reinforce the construct of "sociocentrism" as a characterization of young children's social interests. Clearly the task for research is no longer to demonstrate that children want to interact but to explain the development of skills for interaction.

Collections

The endpoint analysis of social episodes was validated by the finding that virtually all of the older subjects' data and much of the younger subjects' data consisted of complete social episodes resembling the endpoint model: a given set of participants (the partner pair) accomplished a goal (role play of a store episode, in which the customer obtains foods) in an appropriate supportive

context. Furthermore, most of these episodes contained arrangement phases in which subjects achieved some kind of agreement on their play. However, as described below, some of the youngest subjects' activities did not resemble social episodes. Some of their interactions resembled 'collections,' the first stage in the developmental model.

In general, younger subjects' episodes were less likely than older subjects' to be arranged and less likely to be arranged jointly by both partners. Thus younger subjects did not necessarily reach agreements before they initiated role play, and if they did negotiate, it was likely that one partner dominated. Younger subjects were less likely to frame the embedded episode with a character entry or exit, and thus it was more often not clear in their interactions whether pretense had begun or ended. Similarly, the youngest subjects sometimes formulated a role by its location (e.g. "I'll go in here") rather than its name or its defining activity, and thus it was sometimes unclear whether they had assumed a role. The younger subjects' episode portrayals were more often incomplete.

It was the youngest subjects whose episodes were most likely to be disorganized. Only the activity units of the 3-year-olds were sometimes parallel or solitary rather than social, sometimes disorganized 'collections' lacking interpretable sequential organization. Only 3-year-olds ever abandoned an episode before it was completed to switch roles. Only 3-year-olds ever carried over ownerships from episode to episode, rendering the motives for each role increasingly difficult to interpret. Thus 3-year-olds had more difficulty with the sequential coordination of social behaviors and

their play sometimes resembled "collective monologue."

Collaboration in Non-Abstract Thought

While most of children's interactions consisted of sequentially-organized, complete social episodes, subjects' discourse negotiations almost never resembled cooperative social plan negotiations, or "collaboration in abstract thought," the last stage in the developmental model. Children were not making comprehensive arrangement agreements on a social plan for the co-construction of an entire social episode, not even in sessions 1 and 3 when the contexts demanded them. Only 1 6-year-old dyad in session 3 ever attempted a collaborative social plan negotiation. Children almost never asked one another questions in an arrangement, and thus they were not soliciting one another's input. During the accomplishment of role play, there were some cooperative negotiations of subtasks by the 6-year-olds, although such negotiations occurred when necessary to resolve a dispute interfering with coordinated play, not as part of methodical social pre-planning. Thus, while some older subjects sometimes demonstrated competence in reaching joint agreements on plans and pretense, they could not have been depending on collaboration in abstract thought to get them through an entire episode.

The findings on framing of pretense are consistent with these observations of negotiation complexity. Although most children were making occasional communicative efforts to reach agreements on symbolic transformations of identities, they were not consistently or predictably transforming their play context symbolically.

Arrangements contained primarily role assignments. Establishment of theme and setting identities and of specific actions and discourse were unusual. Linguistic devices for framing pretense were used infrequently, and some categories of devices were not used by all subjects. Qualitative examinations of framing efforts revealed that pretense agreements that were made were often not used in later play. Thus, although subjects could co-construct pretense states, they were not maintaining a pretense state throughout an entire social episode portrayal.

In their portrayals, most subjects represented at least one character, the customer, as motivated by a need for food at some point during most episodes. However, the customer's motives were formulated at infrequent and unpredictable moments during play, and they often were not revealed until the end, when the customer obtained her food. Subjects appeared to be able to take the perspective of customers and represent their intentions by obtaining foods or formulating a motive, but there were many sequences of role play, particularly ritual repetitive fragments, in which the customer's intentions were not apparent.[1] Thus, while subjects appeared to know something about persons' goals in social episodes, that knowledge did not consistently (at least publically) inform the contents of their portrayals. More often than not, subjects appeared to be portraying context-appropriate

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[1] Children did not seem to know much about clerks' goals, and thus neither the clerk's goal (to be paid for her work) nor the relation between clerk's and customer's goals was effectively portrayed. However, it is recognized that since portrayal of clerk motives, and the relation between clerk and customer motives, is not required of a valid store episode portrayal, the meaning of an absence of clerk motivation is ambiguous.

activities, not motivated social relationships (El'Konin, 1966).

According to the developmental model, if children are producing role play by collaboration in non-abstract thought, they are relying primarily upon culturally-shared social event knowledge of the role play theme and upon the support of a thematically-appropriate play context. Analyses of the contents of children's portrayals provided evidence that subjects knew a great deal about the sequence of events in store episodes. At all ages the majority of portrayed actions and interactions were valid and validly sequenced, indicating that subjects shared with one another substantial social event knowledge which would enable them to coordinate a portrayal. The finding that subject pairs rarely ever arranged specific store events or their sequence, when it is clear that they had knowledge of those events, indicates that they assumed that that knowledge was shared between them. Role assignments, subjects' primary concern in arrangements, were apparently believed to imply role contents. Subjects' assumption of shared knowledge was not always appropriate. For example, while subjects did appropriately arrange a greater variety of episode contents in session 1 than in session 2, they did not return to more comprehensive arrangements in session 3, when re-partnered. It appears, then, that culturally-shared knowledge enabled successful interactive role play, even in the absence of efforts to coordinate perspectives and negotiate shared play plans.

It is possible that the prescribed theme in conjunction with the well-stocked, miniature play store actually 'invited' the children's assumption that what was to be done was obvious. It is also possible that a context of play is simply not a context for rational

negotiation for participants of any age. These same subjects may have been able to demonstrate greater competence at negotiation of agreements if the play theme were not prescribed and the play context were less structured and defined. They may have been able to demonstrate greater competence if they were engaged in accomplishing some physical goal, such as completing a puzzle together. While the findings remain that the role play episodes observed were not truly cooperatively produced, interpretation of these findings as evidence of lack of ability, given this examination of peer interactions in only one interactive context, is not possible. As discussed at the end of this chapter, research is needed to disentangle the effects of play and non-play contexts on children's procedures for negotiation.

Collaboration in Abstract Thought

While much of the data fit the category of collaboration in non-abstract thought, there was development across the preschool age range consistent with emerging capacities for collaboration in abstract thought.

As already summarized, there was 1 6-year-old dyad who attempted a collaborative arrangement negotiation in session 3. Furthermore, some of 6-year-olds' negotiations of subtasks during the accomplishment phase sometimes constituted true cooperation. Each participant contributed her version of a plan, and an agreement was reached and then used as their plan for subsequent interactive play. Thus, 6-year-olds demonstrated the competence to cooperate, even if they were not yet anticipating the usefulness of cooperation for the organization of social episodes.

Many analyses of age and age-by-session trends provide data consistent with a developing emergence of skills for collaboration in abstract thought.

Across sessions 1 and 2, subjects at all ages brought 'forward' to arrangements things that had been done before but never arranged as well as new plans that had never been done or arranged before. At all ages, subjects decreased the range of contents arranged in session 2, when partner and play had become familiar. However, these effects were more striking for the 6-year-olds. The 3- and 5-year-olds, the only subjects who sometimes did not arrange their play, arranged their play more frequently in sessions 1 and 3, but the 6-year-olds arranged every episode in all sessions. Only 6-year-olds increased in frequency of joint arrangements in session 3, when re-partnered.

The contents of the arrangements and portrayals of the older subjects provided evidence of their greater understandings of roles and role relationships. When planning portrayals in arrangements, older children more frequently formulated a role's name or defining activity; they never formulated a role by its location. Thus older subjects more effectively differentiated their own identity from their pretense identity. They smoothly switched roles in each rearrangement, indicating that they readily anticipated assuming the complement of the role they just played. When they assigned roles, they more often assigned only one role, indicating that that assignment implied the assignment of the complementary role. Older subjects framed their play more frequently with character entries and exits, and thus they more frequently dramatized the taking-on and the taking-off of their pretense identities. Older children portrayed

complementary roles more effectively. Their complete social episodes contained a higher proportion of valid interactions. Monologues produced while the partner was pursuing role-appropriate independent activities were more thematically consistent. Older customers better resisted the interference of clerks in their food selections.

In general, older subjects more frequently displayed an anticipation of an episode's content and organization. They more frequently rearranged the setting after each round of play, prepared the setting by stocking shelves, prepared for roles by supplying the customer with money and basket. They more often framed their play by portraying entries and exits, thus marking the episode as a unit of activity.

Older subjects appeared to have greater social event knowledge about stores than younger subjects. The complexity of complete episodes increased with age, as indicated by an increase in secondary store characters and in the number of different actions and interactions. The coherence of complete episodes increased with age, as indicated by a decrease in secondary nonstore characters and in invalid actions and interactions.

Some of the data just summarized are consistent with a development across the preschool age range of social plan knowledge as well. Older subjects' more effective portrayals of complementary roles and their more frequent portrayals of interactions indicate that the instrumental relation between clerk and customer was more apparent in their episodes. The higher frequency of secondary store characters demonstrates that they were able to represent each character in more than one relationship. Older subjects' episodes were more often

complete, indicating that satisfaction of the customer's goal was more important to older subjects. The oldest subjects' episodes never contained repeated ritual fragments, and thus the organization of their portrayals was consistently directed toward goal accomplishment.

According to the developmental model, there should be no evidence of social plan knowledge until the stage of collaboration in abstract thought. This component of the developmental model did not receive support. Subjects of all ages formulated the customer's motive for food, even if only a need for a single item. Subjects of all ages produced at least one complete social episode in which the customer was portrayed as selecting and obtaining food. Thus there was evidence for social plan knowledge in even the youngest subjects. Based on these findings, an argument for the apparent developmental relation between social event and social plan knowledge is offered below.

Conclusions

As discussed in Chapter II, it has been argued that early peer interactions consist predominantly of interactive routines -- interactive sequences which are co-constructed by a particular pair of children and whose purpose is solely the doing of them (Ervin-Tripp & Mitchell-Kernan, 1977). Progress in peer interaction is said to entail the development of representational capacities needed for the joint construction and joint achievement of hierarchically organized plans (Ervin-Tripp & Mitchell-Kernan, 1977; Forbes & Lubin, 1981a, 1981b; Lubin & Forbes, 1981). The present work is a contribution to understanding the development of peer interaction, in that it offers a

model of what hierarchically-organized peer interactions might look like. This model facilitated examination of preschoolers' abilities for socially planful interactions. Consistent with earlier studies of preschoolers' interactions, there was also evidence of ritual in these data. Younger subjects often produced series of repeated episode fragments or repeated episodes without turn change. Subjects seemed to get 'stuck' in some segment of an episode and cycle through the sequence over and over again, finally to exit from the loop to complete the episode. As a result, the 'goal' was fluid and ambiguous; it emerged only when the episode was finally completed and the customer obtained her foods. Nevertheless, the customer had a goal, and the children portraying the store episodes had the goal of portraying the customer achieving her goal. While ritual sequences were often very successful contexts for peer interactions, the same pairs who constructed those rituals also constructed more rationally-organized episode sequences. Thus for subjects at all ages there was evidence for social plan and for social event knowledge and for the ability to use both kinds of knowledge to organize socially coordinated portrayals of persons in social episodes.

It appears that previous claims about the perspective-taking abilities and negotiatory skills revealed in role play data, discussed in Chapter III, have exaggerated preschoolers' social-cognitive and communicative competences. In these data there was no evidence that successful role play necessarily reveals preschoolers' competences in perspective taking. The data are best interpreted as evidence that preschoolers make an "elementary differentiation" between self and other (Selman, 1976), that they are aware that the other may not know

or intend what the self does. It is not necessary to attribute to the subjects in this study any additional social-cognitive competence to explain their communicative adjustments across contexts. What the findings do make clear is that interactive role play is a context for the development of the social-cognitive and communicative skills necessary to collaborative production of role play episodes. Social event knowledge enabled children to participate successfully in interactions of greater length and complexity than they could apparently effectively negotiate or frame. As a consequence, they were confronted with discrepancies in role play contents. When subjects were foregrounding 'new arrangements' (things that had been done in role play before but never arranged), they were making efforts to reach agreements prior to play on previously unanticipated differences between them. Thus they were learning from their role play interactions the importance of arrangement negotiations.

During the preschool age range examined, social event knowledge did not strictly precede social plan knowledge. Instead, social event knowledge appeared to enable interactions not yet entirely 'rationally' understood and thereby to enable acquisition of social plan knowledge. In interactive role play, children appear to be learning to recognize one another's intentions, as well as the goals and interacting goals of the characters they are portraying. Social event knowledge appears to enable peers to construct together an interactive context for learning about the rational bases of social interactions.

Directions for Future Research

The framework developed for this project can contribute to further efforts in the study of developmental relations among interactive competences and social cognition. The following are recommendations based on the results from this project on interactive role play.

The Need to Understand the Relation of Talk to Task

In this study, coders were unable to make a reliable distinction between in-role and out-of-role discourse. As a consequence, many accomplishment phase analyses of in-role character discourse and out-of-role communicative procedures subjects used to coordinate their role portrayals were not possible. Further work is needed in establishing criteria for distinguishing the functions of discourse in constituting and in enabling interactive role play. In the only available attempt to date, Sachs, Goldman & Chaille (1981) coded utterances on a 5 point scale consisting of: (1) planning (e.g. "I'll be the...," "Pretend we're ...,"); (2) probably planning (e.g. "I'm the doctor"); (3) either planning or enactment; (4) probably enactment (5) enactment, marked and/or stereotypic of role. The first category appears to combine the linguistic devices of explicit pretense planning (e.g. "Let's pretend...," "Make believe...") and implicit pretense planning (e.g. "You be...," "I'll be...," "This'll be..."). The second category would contain, among other utterances, implicit statives/queries (e.g. "You're the...," "I'm the...," "This is the..."). Sachs et al provided some behavioral criteria for the points of their scale but relied on rankings for problematic

utterances. Two coders' judgments were considered reliable if they were within 1 point of one another. These investigators' reliance upon rankings rather than strictly discourse criteria and their relaxed criteria for establishing reliablity show how difficult it is to distinguish in-role and out-of-role talk in children's play. It was quite evident from the efforts undertaken for this project that there are multiple communicative means for communicating non-literality of intent, including nonverbal behaviors (e.g. exaggeration of gesture or action), paralinguistic behaviors (e.g. change in pitch or loudness or prosody), propositional content (thematic relevance of utterance content), discourse function (thematic appropriateness of function, expressed in a given form, in a given context). Combinations of these behaviors are common. When there are so many means available to frame pretense, the status of any given utterance as in- or out-of-pretense appeared to this investigator to be essentially probabilistic. Utterances seemed usually 'more' or 'less' within or without fantasy, with occasional very clear breaks out of frame for negotiation or very clear character discourse within frame. The variety of procedures children use to mark pretense have been observed and described before (Bruner, Jolly & Sylva, 1976; Franklin, 1981; Garvey, 1977; Garvey & Berndt, 1977; Matthews, 1977). But there has been no systematic developmental examination of the contexts of their use in interactive role play, and research is needed.

The Need to Understand Play as a Unique Social Context

The subjects in this study made inconsistent efforts to maintain a pretense state throughout their role play. Subjects directed one

another's play activities, negotiated rights, reported on their activities, commented on the setting, and discussed non-store concerns (not analyzed). To what extent was the inconsistently constructed, ambiguous location of the fantasy frame simply characteristic of young children's play as a social context and not evidence of their inability to co-construct and maintain pretense states? What are young children's understandings of play as a unique social context? Were these subjects merely playfully unconcerned with a purposeful production of an embedded social episode?

It was concluded earlier that the children were unable to conceptualize and maintain symbolic transformations across a unit of activity as complex as a social episode. However, that conclusion could be in error, if we discover that children at play are not rational and not reflective about social events that they can indeed formulate and reflect on in other contexts, such as interviews. In order to use observations of interactive role play as evidence for children's developing social cognition and interactive competences, we need to understand in what ways children may view role play as a unique non-rational social context. Furthermore, we need to understand the course of development of non-rational playfulness.

It was suggested earlier that the rich concreteness of the play setting in conjunction with the task instructions may have invoked social event knowledge and minimized subjects' perceived need to transform the context symbolically. Subjects might have revealed greater competence at framing pretense in less structured role play contexts requiring symbolic transformation of setting, role, and object identities. Comparisons of role play in well-structured play

contexts (as was the play setting in this study) and minimally structured play contexts which require pretense agreements are needed to determine preschoolers' developing abilities for co-constructing and maintaining pretense.

The Need for Convergent Methods

There are severe methodological constraints on the inferences one can make about subjects' knowledge on the basis of their observed interactions. Even if the interactive context is one that demands collaborative interactions (as did sessions 1 and 3, for example), participants' efforts at coordinating but not duplicating their contributions make it unlikely that any one participant will display all that she knows. Interviews need to be developed in order to assess each participant's knowledge of the task and her understandings about the social interactions relevant to the task context. As reviewed in Chapter II, Forbes & Lubin (1981a, 1981b; Lubin & Forbes, 1981) have developed a paradigm of convergent methods in which children are observed in particular interactive contexts -- for example, during attempts to enter an ongoing play group -- and interviewed about those contexts -- in this example, about entry behaviors and other children's interpretations of those behaviors. Underlying their analyses of interviews and interactions is an assumption of a structural, cognitive-developmental model of social development. However, they are careful not to build models of developmental change in domains of social knowledge much more comprehensive than the one being examined. Their work represents an important advance over previous correlational studies which borrow

from existing global ratings of interactive competence and laboratory assessments of perspective taking, a methodology that produces more questions than results.

The Need for Analyses of Contexts: How Abstract is Social Plan Knowledge?

A particular level of analysis in the organization of social life was selected for study -- that of the social episode -- because it is a common and important unit of everyday social life. Knowledge of other levels of analysis of social organization (e.g. the organization of a school day as a set of episodes, or a school year as cycles of repeated episodes directed toward achieving annual curricular goals) could be examined comparatively. Developing understandings of the internal organization of episodes (arrangement, accomplishment, and finish phases) and the existence and function of critical episode components (goal, setting, participants, participant roles, materials) could be examined as well. The endpoint model of social episodes can also be used to examine knowledge of different episode types. Is social plan knowledge primarily context specific? When do children, or do persons ever, have more abstract knowledge -- for example, that episodes differ in type of goal (e.g. physical, psychological, social), in type of role relations (cooperative, complementary, competitive)?

The Need for Explanation: Peer Interaction as a Context for Social Development

It has been frequently argued that peer interaction is a critical

context for the development of cognitive, social-cognitive, and interactive competences (e.g. Lee, 1975; Lewis & Rosenblum, 1975; Piaget, 1932/1965). The discrepancies among peers' knowledge and skills are argued to be minimal and therefore interactions with peers are believed to offer opportunities for practice of skills, for consolidation, organization, and elaboration of what each already knows, and for acquisition of new knowledge and skill. Longitudinal research is needed in which interactions among peers are observed repeatedly over time. In addition, the contexts in which peers interact require analysis. Role play, for example, has been suggested as particularly critical for the development of perspective taking, in that it demands at least the coordination of social behaviors and optimally the cooperative construction of shared plans for play and the portrayal of motivated persons. However, as discussed earlier, it is possible that role play, as play, is not making demands upon children's rationality. The best contexts in which to study children's developing skills for collaborating, and the contexts in which these skills may be indeed developing, may be interactions in which the goal is a physical goal, such as building a block building or completing a puzzle. Whether role play offers unique opportunities for the development of social competences cannot be determined without comparisons across the variety of contexts in which peers come together.

APPENDIX

1. The Data Base

Any talk not instrumental to or constitutive of store play was excluded from analysis. Exclusions included store-related discourse and activities when these were about the setting (e.g. labeling prop pictures) with no evident intent to play store, personal associations to aspects of the setting ("ooh! I once had a lobster and didn't like it!"), non-store play with the store prop (e.g. "Drop this money down this hole and see where it goes (giggle)").

Table 36 contains the distribution of utterances and activity units for each pair across sessions.

Table 36

Distribution of Discourse Acts and Activity Units

	Session 1		Session 2		Session 3	
Subject	D-acts	Activity	D-acts	Activity	D-acts	Activity
A	66	5	108	2	10	1 (AC)
B	145		95		148	5 (BE)
C	56	3	59	3	22	
D	259		110		136	3 (DF)
E	342	9	194	5	247	
F	225		147		113	
G	59	3	128	4	31	2 (GI)
H	77		73		24	
I	76	2	65	2	22	2 (HJ)
J	104		49		59	
K	133	2	135	2	184	2 (KM)
L	149		147		61	
M	140	4	18	1	150	2 (LN)
N	136		21		44	

Subjects' pseudonyms and ages:

Anna 38 months

Becca 38 months

Cathy 41 months

Dale 46 months

Eve 46 months

Faye 50 months

Greer 66 months

Holly 68 months

Ida 70 months

Jane 70 months

Kelly 73 months

Lisa 74 months

Mary 75 months

Nancy 76 months

2. Discourse Codes

All of the codes in this section are adaptations from Dore (1977). Much of the text below is edited from Dore's manual. All examples are from the present data.

Discourse Sequences

A discourse sequence is a series of discourse moves (defined below) which share a topic and a reciprocal illocutionary domain. The utterances in a sequence are related in content and in illocutionary phenomena (such as expectation and fulfillment in question-answer pairs). A speaker who initiates a sequence can be said to "get the floor," because it can be demonstrated that subsequent utterances are oriented to the initial one until the sequence changes. Any utterance having a new topic, any request which extends the topic, any nonrequestive utterance which extends the topic (but cannot be seen as within a Response or Extension move, see below) will automatically bid for a new sequence. It may be difficult to decide whether the topic of an utterance is 'new' vs. 'extended' vs. 'same'; it is less difficult to identify the illocutionary domain (the discourse act). In this scheme, requestives initiate new sequences unless they are clearly the 'same' topic (see Counters, below).

Discourse sequences can be coded for the primary intention expressed in the initial move: e.g. is the speaker asking a question, requesting an action, making an assertion? Categories of discourse sequences depend upon internal codings of discourse moves and discourse acts, defined below, and therefore discourse sequence types will be defined at the end of this appendix.

Discourse Moves

A discourse move contains one or more discourse acts (see below). There are three primary types of moves in the system: initiating, responding, and extending moves. These correlate with discourse act type in that, generally, initiating moves (I) take requestives or assertives as their D-act content, responding moves (R) take responsives, and extending moves (E) take assertives or responsives which elaborate on either the same topic introduced by the initiating D-act or the illocutionary conditions underlying the initiating or responding D-acts. (There are other possible move types, but these were not used in the present research.)

Speaking turns and discourse moves may or may not represent the same sequence of D-acts. A speaking turn is a continuous series of D-acts by one person. (If turns overlap, it is presumed that both parties heard one another despite the overlap. This procedure was established after encountering many cases of simultaneous talk in which both speakers subsequently displayed an orientation to the contents of one another's simultaneous talk.) Many speaking turns were short and were assigned just one discourse move. But many turns were long and were assigned more than one move, by segmenting between D-acts. A common sequence of moves within a turn, for example, was R, I, where R were those discourse acts which functioned as a Response to the partner's Initiation, and I were those discourse acts which functioned to initiate a new sequence.

Codes and Definitions

I An Initiation is any discourse act having a new topic or any request which extends the topic.

I(m) An Initiation to a monologue sequence is any discourse act having a new topic or any request which extends the topic, where that discourse act is intended for the self. Monologues are characterized by self-absorption and lack of attention to the partner. Although some dialogues with imaginary persons seem staged for the partner's benefit when they are accompanied by occasional sideways glances at the partner (and smiles and giggles), these are nevertheless coded as I(m), since they are not intended to solicit a complementary response from the partner.

I// An Unsuccessful Initiation is any discourse act (or series of acts) which constitutes an Initiation but is not followed by a complementary Response.

R A Response is any discourse act (or series of acts) which can be heard as a response to an Initiation.

E An Extension is any discourse act (or series of acts) which can be seen as an extension of a Response move.

In the present work, Extensions were coded merely to ensure that all discourse acts and

moves were included with the appropriate sequence.

Discourse Acts

The discourse act is a composite unit derived on the basis of grammatical form, illocutionary force and discourse function. D-acts are of four basic types, each of which has several subtypes: (1) Requestive acts solicit specific kinds of responses and include question types, action and permission requests, and suggestions; (2) Assertives provide information or establish facts and include reports of various kinds, evaluations, and declarations of rights and procedures; (3) Responsives supply solicited information or additional information related to preceding Requestives or Assertives; (4) Regulatives are devices for organizing discourse, such as speaker selections, attention getters, and boundary markers.

The determinative factors for scoring utterance forms into D-act types are: (1) the grammatic form of the utterance (which includes its lexical, syntactic, and prosodic features); (2) the position of the utterance form in the discourse (which includes its position in the move, the sequence (see below), and the larger units such as episode); (3) the relation of the utterance's form, content, or illocutionary status to other forms (which include not only relations to immediately preceding and succeeding forms, but also relations to more remote forms in the sequence and forms in other sequences); the context of the utterance in terms of the social event, ongoing activity, or immediate surround.

Codes, Definitions, and Examples of Discourse Acts

REQUESTIVES solicit information or action

RQCH Choice questions seek either-or judgments relative to propositions: "Do you want some soup?"

RQPR Product questions seek information relative to most WH interrogative pronouns: "How much are these stuff?"; "What kind of thing do you play?"

RQPC Process questions seek extended descriptions or explanations: "Why?"
(These occurred only 3 times in the entire corpus, as challenges to a partner's refusal to yield in a conflict.)

RQAC Action requests seek the performance of an action by hearer: "Get the bag out."

RQSU Suggestions recommend the performance of an action by hearer or both speaker and hearer: Whyn't you buy something?"; "Let's put some o' these back."

RQPM Permission requests seek permission to perform an action: "Can I go in your store right here for a second?"

ASSERTIVES report facts, state rules, convey attitudes, etc.

ASID Identifications label objects, events, people,

etc.: "This is milk."

ASDC Descriptions predicate events, properties, locations, etc. of objects or people: "That bag won't fit."

ASIR Internal reports express emotions, sensations and other mental events (except intentions): "I forgot."

ASIN Assertions of intent report a plan for future action: "I'll give you some money."

ASAT Attributions report beliefs about another's internal state: "You forgot your bag."

ASEV Evaluations express personal judgments or attitudes: "That's enough I think."

ASRU Rules state "social rules": "After your turn is my turn."

ASPR Procedurals state the means which constitute the carrying out of a plan: "First I gotta empty all of these out"; "You hold it with both hands."

ASOB Obligations state a necessity for a given participant to do a given act: "You have to buy something, this store." (If the necessity is expressed in terms of the logic of some procedure, however, the O-act is coded ASPR.)

ASPD Predictions report beliefs about a future state: "You're gonna have so much!"

ASCL Claims report or establish rights: "Now it's my

turn to be the storekeeper"; "That's yours".

ASEX Explanations state reasons, causes, justifications, and predictions: "'Cause, I don't want you to."

RESPONSIVES supply solicited information or acknowledge remarks

(Examples for responsives are merely suggestive, since an utterance's status as responsive is a function of its complementary relation to some prior requestive or assertive discourse act.) Responsives were not examined in the present research, but they are included here as part of Dore's scheme.

RSCH Choice answers provide solicited judgments of propositions: "Yes," "No."

RSPR Product answers provide WH information: ("How much is it?" --) "25 cents."

RSPC Process answers provide solicited explanations, etc.: "Because I told you to."

RSCO Compliances express acceptance, denial, or acknowledgment of requests for action or protest: "Okay I will."

RSPM Permissives grant or acknowledge the hearer's rights: "Okay you can do that."

RSCL Clarifications provide solicited clarifications of prior remarks: "I said, 'Come in my store!"

RSAG Agreements agree or disagree with prior non-requestive act: "Yes it will."

RSAK Acknowledgments recognize prior non-requestives: "mm hmm."

REGULATIVES control personal contact and discourse flow

ODAG Attention getters solicit attention: "Hey!"

ODSS Speaker selections label speaker of solicited next turn: "Lady, ..."

ODRQ Rhetorical questions seek acknowledgement to continue: "You know what?"

ODCQ Clarification questions seek clarification of prior remark: "What?"

ODFR Frames indicate that a series of related discourse acts is to follow: "Here's what you gotta do."

ODBM Boundary markers indicate shifts in the conversation or activity: "Now," "Okay," "So..."

ODGR Openings and closings establish or terminate interaction: "Hello," "Goodbye."

ODPM Politeness markers indicate ostensible politeness: "Please," "Thank you."

ODEX Exclamations express attitudes non-propositionally: "Oh my!" "Wowee!"

ODAC Accompaniments indicate some action redundantly: "Here," "Here ya go," "Here y'are" (uttered when handing a coin).

UDAT Attention requests solicit the hearer's attention: "Look," "See?"

Discourse Act Tags

Tags were constructed to help in locating data of importance to the present research.

-T Tag questions (e.g. RQCH-T) follow requestives (or procedurals used as indirect requests) and seek agreement or confirmation: "Right?" "Okay?"

-RQ Indirect requests for action are assertions or requestives other than requests for action which seek indirectly the performance of an action by the hearer. This code is not applied if in the same turn the request is made explicit. In these data, the most common indirect request was a procedural (ASPR-RQ): "You hold it with both hands."

-IN Expressions of intention are any discourse act (but not assertions of intent) which express an intention to do an action: "Let me pay for it."

Discourse Sequence Types

Discourse sequences are categorized on the basis of the primary intent displayed by the speaker who initiated the sequence. Primary intent was determined on the basis of the following principles applied in order to discourse acts in the first move (I):

(1) If all D-act(s) are of the same type, then the primary intent of the sequence is the same as that of the D-act(s).

(2) If there is a request for action (RQAC), then the sequence is coded as a requestive sequence, and other acts are seen as adjuncts to the request.

(3) If there is an indirect request for action (---- - RQ), then the sequence is coded as an indirect requestive sequence, and other acts are seen as adjuncts. (Note that no act in the first move of a sequence can function as an indirect request for action if a request for action -- RQAC -- already exists in that move -- see principle (2)).

(4) If there is a question not a tag (not RQCH-T), and none of the rules above applies, then the sequence is a question sequence:

   (a) if there is a process question, it is a sequence of that type,

   (b) if there is a product question, it is a sequence of that type,

   (c) if there is a choice question, it is a sequence of that type.

(5) If there is an assertion, then the sequence is coded as an assertive sequence.

(6) If there is an organizational device, then the sequence is coded as an organizational sequence.

(7) If there is an expressive, then the sequence is coded as an expressive sequence.

3. Notes on Session Organization

Although the experimenter imposed session length on each pair, some subjects made an effort themselves to organize the play session (and not just each successive episode) and to initiate the closing of the session themselves.

Session Arrangements

Although there were no cases of session arrangements, some subjects did make an effort to make an agreement on turn-taking procedures that would apply across episodes for the duration of the session. There were two occasions in which a subject made an effort to establish turn-taking procedures at the outset of a session.

(A) G, 66 mos; H, 68 mos: Session 2, Episode 1

(1) H	You be=	H points to food board as she goes behind counter. G also goes behind counter.
(2) G	=How about, I'll be the first one, I'm (all ready) then you'll be (one).	H walks out of store to food board. (G and H alternate turns in this session without any further negotiation.)

(B) M, 75 mos; N, 76 mos: Session 2, Episode 1

(1) M	... I wanna buy.	M moves over to food board. N follows her.
(2) N	How many times do you wanna buy?	N returns to store, goes behind counter.
(3) M	(giggle) ah four (giggle)	(There is no further discussion of turns. In fact, M and N are so uncontrollably giddy that they never complete this episode.)

Turn taking procedures were negotiated later in a session by 2 pairs.

(C) E, 46 mos; F, 50 mos: Session 1, Episodes 3 and 4

(1) F This is the store. After you comes me.

F is waiting in front of counter for E to "pay". (E hands F a coin. F walks around with it. E comes out of store with open bag. E insists that F put the coin in the bag.)

(2) F Now your turn. Okay?

(E does not respond to F. She continues to insist that F bag the coin. There is no further talk of turns until the arrangement of Episode 4:)

(3) E Faye Faye, Faye Faye you have to buy something. This store.

E follows F off camera, then returns to store. E is still holding bag from Episode 3. She sets an item on counter. F comes to the store.

(4) F An' and after your turn is my turn.

(5) E Right.

(6) F It's our turn to be at the store.

No response from E. Negotiation of items ensues. There is no further talk of turns in this session. F never has a turn as clerk in any of 9 episodes.

(D) K, 73 mos; M, 75 mos: Session 3, Episode 2

M is returning foods used in Episode 1 to food board. K watches and talks with her.

(1) M I'll do the store lady five times.

(2) K Is that what you and Nancy do?

(Nancy was M's prior partner. M appears to be lying: M and N always took turns, although M once requested many turns.)

(3) M Yup.

(4) K Who's the store lady five times?

(5) M Me.

(6) K And how much is Nancy?

(7) M Nancy is the, person who buys.

(8) K All the time?

(9) M Mhmmm. ( )

(10) K Well at least give me one more turn okay?

(11) M hunh?

(12) K Give me one more turn. Let's not, only one more storelady and I'm the mommy, next time. ...

(The issue does not come up again, as E stops

their play at the end
of this episode.)

None of these (very rare) session arrangement efforts is well formed. (A) was not particularly comprehensible. (C) was not fully coherent (note F's non sequitur in (C)-6). (B) and (D) were not reasonable. It appears both that most subjects were not anticipating that they would play store more than once in a session and need to establish turn-taking procedures, and turn-taking procedures were understood by most older subjects and believed to be shared. 5-year-olds and 6-year-olds almost always switched roles at the end of an episode, even if the exact moment of episode completion was sometimes an issue (and despite M's greedy demands in (B) and (D); See Table 27 in Chapter IX.) Turn-taking by 3-year-olds was very disorganized and unpredictable. (Descriptions of 3-year-olds' difficulties in switching roles are reported in Chapter IX.) than older subjects. 3-year-olds probably did not well understand or share knowledge of turn-taking procedures, and this lack of knowledge probably accounts for the absence of their turn-taking negotiations. 5-year-olds and 6-year-olds probably did understand and share turn-taking procedures (at least the procedure of alternating roles) and assumed that they were shared with their partners. Notice that F, a 3-year-old, struggles and fails to organize alternation of turns in (C), while M, a 6-year-old, attempts a violation of the normative alternation procedure in (B) and (D).

Session Finishes

Only 5 of 21 sessions contained session finishes, in which

subjects took it upon themselves to end their play. Examples below illustrate session finishes.

(E) D, 46 mos; F, 50 mos: Session 3 finish

(1)	D	We had a very nice time right? You had a very nice time.	D is folding up bag.
(2)	F	Right!	D puts folded bag on counter.

(F) G, 66 mos; H, 68 mos: Session 2 finish

			(At the beginning of the last episode, G and H had agreed that they would play "just one more time".)
(1)	G	(That's it), quickly give the money back. And now, an' now I put the money back!	G picks up bag behind counter. G puts money back in register.
(2)	H	No I put the money back. Unh.	H is picking up items that fell off board.
(3)	G	Well I'll take how much there was, out again.	H approaches counter. G takes out coins and puts them on counter.
(4)	H	No don't open it. Keep it closed. (giggle) see how you --	H does not want G to open cash register drawer. She slides coins through a slot near the top.
(5)	G	Yeah an' I think we're gonna, now we're done. Now I think that's enough, ( ). Now we'll knock, okay?	G goes off camera to lab room door. H folds bag and returns it to counter. H turns and looks at G off camera. G knocks (off camera). H goes off camera toward door.

(G) H, 68 mos; J, 70 mos: Session 3 finish

(1)	J	I don't want to play.	J walks off camera toward window. H follows. There is no further store play.

(H) I, 70 mos; J, 70 mos: Session 2 finish

(1)	I	Let's knock on the door, I don't wanna play, (now). I'll	I walks off camera.

		knock on the door!	
		( ) hey!	
		(Well lemme/I'll only) put, these up again.	I runs back, puts foods on floor back on board.
(2)	J	And I'll set 'em, here,	J goes benind counter, gestures as if putting phone receiver back, squats to get bags.
(3)	I	(Right), put the bags where they,	I also goes behind counter.
(5)	J	be[long.	
(6)	I	[they belong.	They rise, putting bags on counter.
(7)	J	Okay.	
(8)	I	Uh c'mon --	They summon the experimenter.

4. Activity Units

A social episode is an interactive occasion constructed by persons who are co-present in a particular setting to accomplish related goals. The 15 minute play session was not considered an episode, since it was imposed by the investigator and not constructed as such by the dyad. Instead, successive role play episodes -- grocery store scenarios -- were identified within each play session.

An episode is located where there is maximal relatedness among the participant's pretend roles, setting definitions, activities, and sequential organization of activities. The boundaries (beginning and end) of a role play episode typically extend outside the pretend scenario into the concerns of the 'real' participants setting up the play or disassembling it. The talk that is outside the role play but is considered part of the cooperative role play episode is, in other words, instrumental to the doing or undoing of role play. Thus, the beginning of an episode is typically located where the participants initiate play arrangements or play re-arrangements (see Arrangements and Rearrangements, below), and the end of an episode is located where the participants reach agreements to end play and disassemble the setting.

Since not all episodes contained arrangement phases or finish phases, an episode was judged complete if the embedded portrayal in the accomplishment phase was judged complete. A cycle of one round of store play was considered a Complete Social Episode if within it a 'customer' selected food and if, at its termination, these foods were bagged (or basketed) and/or carried out of the store setting. An Incomplete Episode ended prematurely, typically during the customer's

selection of food items. A Collection contained a chaotic array of behaviors, most of which were appropriate to a store context but lacked any recognizable sequential organization. Evidence for a collection includes: rapid and/or sudden shifts in activity or location apparently triggered by an interesting object or an interesting and different activity by the partner; discourse concerned just with immediate activity and never with any temporally and/or logically related subsequent activity; absence of temporal terms and boundary markers; abandonments of activity; unpredictable and unstable shifts in role relations from action to action (or transaction to transaction).

Complete Episodes, Incomplete Episodes, and Collections could be either Social or Parallel/Solitary. A Social Episode was accomplished (though not necessarily arranged) by both participants. A Parallel/Solitary Episode was accomplished (though not necessarily arranged) by one participant, or by participants more or less separately, with at best only unpredictable interactive coordination. It was a dilemma for coding activity unit type when play was essentially parallel, and one participant pursued a more organized sequence of store play than the other (e.g. one subject's play is an unorganized solitary collection, while the other's is a solitary, incomplete episode). Since only one code per dyad is assigned to any activity unit, the dyad was credited with the more organized and more complete play.

5. Activity Phases

Arrangements and Re-arrangements

Session arrangements. Session arrangements are utterances and actions which occur prior to any role play in the session and anticipate and/or plan the organization of the session (e.g. procedures for alternating turns during the session). (See Appendix 3.)

Episode arrangements. Episode arrangements are utterances and actions which occur prior to role play and anticipate and/or plan the contents of the play and/or accomplish critical preconditions for the play. Utterances immediately instrumental to a specific role play step are not arrangements.

Episode re-arrangements. Episode re-arrangements satisfy the criteria for episode arrangements but additionally involve some disassembly of prior play in order to make new or to recreate old play arrangements. The first episode in any given session is arranged, and each subsequent episode is re-arranged.

Locating arrangements and arrangement boundaries was often difficult. (a) Locating the end of an arrangement phase and the initiation of an accomplishment phase was problematic when partners did not coordinate their entry into pretense. One participant might already be role playing the activities of her respective role (e.g. the 'customer' selects her food items), while the other continues to plan their play. Where partners were clearly not interactively coordinating their arrangements or their entry into pretense, the precise boundary between phases was relaxed in order to admit into

arrangement phase analyses those discourse acts of each partner serving to arrange the scenario. When entry into the accomplishment phase was not interactively coordinated, there was typically an overlap only of 1, 2 or 3 discourse acts. If either participant contributed arrangement negotiations even as she initiated role-appropriate actions (e.g. selecting foods or stocking shelves), her discourse was considered part of the arrangement negotiations unless it shifted to organization or narration of her ongoing role play. (b) Also problematic for the coding of arrangements was the existence of setting up activities (usually stocking shelves) embedded within the arrangement. Setting up is an activity which could contain phases of its own, and talk during setting up was thus sometimes not concerned with the arranging of store play per se but with the accomplishing of setting up. Because setting up was unusual in these data, the decision was made to include all setting up discourse as part of arrangement phase discourse analyses. (c) When arrangements were fraught with conflicts, some or all of which might be left unresolved, it was sometimes difficult to decide whether a new episode -- i.e. a new accomplishment phase/a new round of role play -- followed the problematic arrangements or whether the old episode continued by default. If it was judged that the old episode had resumed, the failed arrangements were not included in arrangement phase analyses. If it was decided that a new episode was initiated, the 'arrangement' was of course then coded as an arrangement.

Arrangement phase types. Arrangement (and rearrangement) phases are coded to provide a global description of subjects' arrangement interactions and their success. There are four categories.

A Joint arrangement is one to which both subjects contribute, and the contributions of each are more or less interactively coordinated. There may be some simultaneous talk as each arranges the setting (sorting foods, stocking shelves, folding bags, returning basket). In a joint arrangement, both participants are working together to arrange a task that they plan to accomplish together.

A Directed arrangement is one organized by only one participant, who, for each component of the arrangement, either does it or requests it of her partner. Her partner watches or does what is requested of her. In a directed arrangement, both participants are working together to arrange a task, but there is an asymmetry to the social organization of their work, and it may be unclear whether they intend to accomplish the task together once arranged.

A Problematic arrangement is one either fraught with unresolved conflict or one in which there is no coordinated interaction. In a problematic arrangement, there is no evidence that partners are attempting to work together in the arrangement of a joint activity.

No arrangement phase may occur. Partners may initiate role play (e.g. 'customer' picks up basket and begins selecting as 'clerk' assumes her place behind store counter) without any social planning or setting arrangement.

Accomplishment Phase

Accomplishment phase. The accomplishment of role play consists of the enactment of some store scenario; it begins after the arrangements and ends with the finish (or rearrangement). All role play and related activities (e.g. local breakings of frame to

negotiate a certain procedure), with the exception of delayed arrangements/ rearrangements, are considered part of the accomplishment phase of the episode.

Finishes -- Episode and Session

Episode finishes. Episode finishes are utterances and actions which undo (clean up) and/or comment retrospectively on the prior store play. If participants are undoing and/or commenting on prior play in order to begin again, these utterances and actions are considered Episode Re-arrangements.

Session finishes. Session finishes are utterances and actions which display an intent not to play further. Typically session finishes subsume episode finishes; a dyad has played several times and ends an episode with the decision to clean up and call in the experimenter. (See Appendix 3, Notes on Session Organization.)

6. Arrangement Content Categories

Arrangement contents are identified by searching arrangement discourse and activity for each of the following content categories. As described below, a given discourse act can sometimes be assigned more than one arrangement content category if it serves to arrange more than one component of the role play task. Unless otherwise specified below, each code can be assigned only once per each arrangement phase.

Theme: Any effort to identify the theme (the 'script') to be role played.
"Let's play store."

Roles:

Role names: Any effort to identify a role by name.
"You be the storekeeper;" "I'll be the buyer."
This code may be assigned to as many different roles as identified by name.

Role activity: Any effort to identify a role by its defining activity (e.g. buy, sell).
"You buy."
This code may be assigned to as many different roles whose defining activities are identified. Role names containing the activity name (e.g. "the buyer," "the payer," "the seller") are not coded as role activity, but as role name.

Role steps/action: Any effort to plan specific steps of a role.

"..then you put it on the counter;" "let's play ... you took it to your car."

This code may be assigned to each different step that is planned.

Role steps/discourse: Any effort to play specific discourse appropriate to a given role.

"and you say, '.....'"

This code may be assigned to each different discourse step that is planned.

Role location: Any effort to specify a location for a role.

"Go right there."

This code may be assigned to each role for whom a location is identified.

Role ownerships: Any effort to claim or to assign ownership of some object other than those coded under Preconditions (below).

"And this will be my food for me to eat, not you."

This code may be assigned to as many objects (locations, etc.) as are claimed.

Role purpose: Any effort to establish a specific goal for a character role.

"I'm gonna have a big dinner tonight."

This code may be assigned to each role for whom a purpose is identified.

Role motive: Any effort to establish a global motive for a character role.

"And you want food."

This code may be assigned to each role for whom a motive is identified.

Simple claim: Any claim to a turn at a role that does not contain any of the above role contents.

"My turn."

This code may be assigned to each role which is claimed with a simple claim.

Turn-taking

Any effort to plan length of turn and/or procedures for taking turns during the session.

"I'll be the storelady five times" (also coded as role name).

Preconditions

Clean up/rearrange play setting: Any effort in action and/or discourse to return play setting to its original state prior to play (applies only to Rearrangements).

Stock shelves: Any effort in action and/or discourse to take foods from food board (the original location) and place them on prop shelves.

Supply customer with money: Any effort to supply customer with money before the play begins.

"That's your money you had in the very beginning."

Supply customer with basket: Any effort to supply customer with basket before the play begins.

Other

Identify prop items with no apparent arrangement function other than exploration.

7. Foregrounding

Coding foregrounding entails a comparison of the contents of any given arrangement to all prior activity: Had partners negotiated such an arrangement agreement before? If not, had they ever produced play in an accomplishment phase consistent with such an arrangement agreement before? Arrangement contents are defined as presented in Appendix 6. Sessions 1 and 2 were combined under the assumption that partners will continue to make adjustments to their listeners across two successive days of repeated play with the same partner.

Foregrounding categories include negotiation of New Plans and negotiation of New Arrangements.

New Plans are negotiations of play (e.g., role, setting, or object identities, or plans for action or talk -- see Arrangement Content Categories, Appendix 6) which have never been either discussed or done before.

New Arrangements are negotiations of components of play which have appeared in prior play but have not so far been explicitly arranged. For example, a customer may have pretended that she brought her basket from home (i.e. that the basket was hers and not the store's) but had never, until now, explicitly established ownership (e.g. "This'll be my basket") in an arrangement phase. Thus New Arrangements are planfully 'brought forward' from a prior accomplishment phase to a subsequent rearrangement.

Provoked Arrangements (whether New Plans or New Arrangements) occur within a dispute (usually within a response -- R -- or an Extension -- E -- discourse move; see Appendix 2). Typically, a child

rejects another's Initiated Arrangement and responds with an Arrangement of her own.

Initiated Arrangements are introduced spontaneously (usually within an Initiation -- I -- discourse move; see Appendix 2).

8. Structure and Complexity of Arrangement Negotiations

These categories were intended to represent interactions which were successively less collaborative and thus successively more egocentric. However, there were too few of any type to permit a reliability study or to permit inferences regarding developmental differences. These tentative categories are nevertheless defined below, and examples of each are discussed. There are thorny methodological problems in the use of data derived from such a category scheme, however. When any interaction is judged to be less than collaborative, it is problematic as evidence of interactive abilities (or inabilities). There are a variety of factors which interfere with successful interaction, including fatigue, difficulty with the task, and dislike for one's partner. In addition, shared experience with one's partner in doing the task together makes extensive interaction unnecessary. Shared knowledge of scripts for interaction in supportive contexts also renders cooperation unnecessary. Therefore, tne usefulness of codes like those below is best limited to identifying the kinds of interactions subjects construct in methodologically optimal circumstances: when subjects know that a joint task is required, when they are agreeable to working together, when the task is moderately unfamiliar but within their capabilities, when they are not tired. Interactions under these conditions are most likely to reveal how subjects are capable of interacting.

Social Plan Collaboration in Arrangements

There were only two arrangement phases in any session which

approximated comprehensive social plan negotiations. These arrangements were produced by 6-year-old dyad KM in session 3 and are discussed in Chapter VII (see example (C), Chapter VII).

Coordinated-Elaborative Arrangements

In coordinated-elaborative arrangements, participants negotiate shared social plans for subtasks. In these negotiations, subjects demonstrate the ability to formulate social plans, to construct a joint social plan, and to use that social plan in accomplishing the subsequent subtask. The social plan, however, is not of the complexity of an entire social episode. These negotiations are of interest, in that they reveal an essential competence at collaborative negotiations. They may reveal an inability, however, to recognize that comprehensive social planning is an efficient means for ensuring successfully coordinated task accomplishments.

There were no clear cases of coordinated-elaborative arrangements for any arrangement subtask. (There are, however, clear cases of coordinated-elaborative negotiations in accomplishment phases, and these are presented in Appendix 9.) Consider, however, these examples of unclear cases.

(A) represents 3-year-olds' best efforts.

(A) B, 38 mos; E, 46 mos: Session 3, Episode 4

(1) B	Na, nnnow you can buy! (it)	E is inside store.
(2) E	[( )	B follows E into store,
(3) B	[You can buy, okay.	sets down her basket, starts to unload from
(4) E	No, [no--	inside store. E puts
(5) B	[Uh but I want some buy!	hand in basket. B pleads.
(6) E	Well, I didn't have (a/the) long enough turn, 'kay? You can have	B takes basket, retreats

	anotner turn, after me, okay? And here's my bag.	out of store, goes to food board. E picks up 'her' bag of food inside
(7) B	And I will buy! The seller, I will be the seller.	store. B returns to inside store, sets basket on counter from inside.
(8) E	No, not right now. Not right now. Not right now, okay?	E rebuffs B. B leaves with basket. B returns to food board, unloads basket.
(9) B	[Okay.	
(10) E	[I'll be the seller.	
(11) B	Okay. An' then, an' then I will be the seller and you can be the buyer.	
(12) E	Okay.	
(13) B	Okay now	

This is not truly an "elaborative" negotiation. Although each participant contributes extensively to the negotiation, E's solution in (6) ("You can have another turn after me") is accepted and not elaborated by B. Her reformulation in (7), (10), and (11) ("an' then I will be the seller and you can be the buyer") is not an elaboration. Still, the active efforts of both B and E to reach agreement make this different from less interactively focused (e.g. coordinated-additive) interactions) and more partner-dominated (e.g. leaderfollower) interactions, described in later sections.

(B) G, 66 mos; H, 68 mos: Session 2, Episode 1

(1) H	You be=	H points to food board as she enters store.
(2) G	=How about, I'll be the first one, I'm all ready, then you'll be (one).	G walks into store. H walks out of store.

(B) is unclear as an example of coordinated-elaborative arrangements, in that G's justification for her position in the negotiation is arbitrary and not coordinated with her partner's. After all, H is also "all ready", as she demonstrated by entering the store setting in

the first place. H's willingness to yield to G results in an interaction which better resembles 'leader-follower' negotiations, described in a later section.

(C) I, 70 mos; J, 70 mos: Session 2, Episode 1

(1)	I	Um, I'll give you, some change, the money,	I enters store, gets money from register.
(2)	J	And I'll put 'em [in my (pocket).	J touches her pocket.
(3)	I	[when we're buying it.	
(4)	J	Yeah, put it [in my pocket.	J touches, looks in her pocket.
(5)	I	[(I'll give you it.) I'll give you a lot of money. There, that's all. Mmn.	I hands J money.
(6)	J	I (put it in) my poc[ket.	J puts it in pocket.
(7)	I	[Give me....	(arrangement continues)

While J agrees to I's intention (line (4), "Yeah") and thus agrees to receive the money, I never acknowledges J's additional contribution to the accomplishment of this arrangement precondition. In fact, I interrupts J each time. This subtask negotiation resembles, in some ways, coordinated additive arrangements described next.

Coordinated-Additive Arrangements

In coordinated-additive interactions, each participant contributes to task work, but there is nevertheless an absence of focused negotiation for any particular subtask as there is in coordinated-elaborative interactions. It is different from partner domination (see leader-follower, below), in that domination by one partner is not sustained.

(D) I, 70 mos; J, 70 mos: Session 2, Episode 1

(7)	I	[Give me	I leaves store, goes to
(8)		all the food that you can find.	food board.
(9)	J	This is my basket.	J gestures with it to I.
(10)	I	All right. I have, ----- (monologue)	I is collecting foods and bringing to store.

In (D), an unclear case, I initiates a plan to stock the shelves in (7); J establishes ownership of the basket in (9); I stocks shelves in (11). I acknowledges J's basket claim in (10), but J never acknowledges I. In (C) and (D), there is a lack of focused effort at agreement on most of the arrangement work.

Leader-Follower Arrangements

In leader-follower interactions, one partner directs the activity of the other. This form of coordinated activity was interpreted by Piaget (1955) as egocentric, in that one partner's intentions, here dubbed the 'leader's,' are never modified and the other partner's intentions, the follower's, are undifferentiated from her directing partner's. There is no negotiation. Leaderfollower arrangements (the same as Directed arrangements in Table 8, Chapter VII) were quite common at all ages.

(E) G, 66 mos; H, 68 mos: Session 1, Episode 1

		G beckons silently to H, takes basket, starts to choose foods. H follows G.
(1) G	You be the storekeeper. I'll buy (food/things).	G points to store. H goes in store, looks around a bit.

(F) A, 38 mos; B, 38 mos: Session 1, Episode 5

(1) B	An' an' you be the seller and I will be the buyer. Okay?	
(2) A	[Okay? [(Yeah), (okay).	B picks up foods from board and places them on counter. A is still outside store.
(3) B	Can I, (get) -- You get in there.	B pushes A insistently. A enters store.

(G) G, 66 mos; H, 68 mos: Session 2, Episode 3

(1) H	It's my turn.	H runs into store.

(H) B, 38 mos; E, 46 mos: Session 3, Episode 1

(1) B	You, you, go in there. Wai' whe whe whe whe weh uh when I buy then you, the' then you, take (the/some) money out and buy my f'food, okay?	B almost pushes E in store. B talks to E over counter, smiling. B gestures to foods on board.
(2) E	Okay.	E is holding a bag, not looking at B.

When leader-follower arrangements occurred in session 2, as in (G), they were efficient procedures for initiating a task already shared many times. The presence of leader-follower arrangements early in session 1, as in (E), or in session 3, as in (H), were more persuasive evidence of egocentric interaction, because in such arrangements, neither partner evidenced awareness that they might not share interpretation of the leader's plan as stated.

Doer-Observer Arrangements

In doer-observer interactions, one partner does all the work, and the other watches. There is no focused interaction, and no role for the observer to play in arranging the task. (I) is a clear case. G and H have so far never re-arranged an episode, and yet they do not work together.

(I) G, 66 mos; H, 68 mos: Session 1, Episode 2

(1) G	Then, well if we take take turns, (after you), then, take 'em, Now it's my turn to be the storekeeper.	G is putting money back in cash register. G takes some food out of bag, puts it back on board. G's back is to H. H is watching G.

First I gotta empty all of these out! (Put that back).	S is still emptying bag. S looks over shoulder towards cash register (referring to money which she already returned?). (H then initiates a conversation about the lab kitchen, excluded as data.) G folds bag, puts on counter.
Okay!	runs into store. H gets up, comes to counter, then turns to board and begins selecting.

9. Structure and Complexity of Accomplishment Negotiations

Collaborative Accomplishment

No dyad was ever observed to carry out their task in terms of a comprehensive arrangement plan for the episode.

Coordinated-Elaborative Accomplishment

Coordinated-elaborative accomplishments are collaborative negotiations of subtasks. Example (D), in Chapter VII, illustrates this category of negotiation.

Example (A) illustrates 3-year-olds' best efforts. B and E agree on identities which went unplanned in their arrangements.

(A) B, 38 mos; E, 46 mos: Session 3, Episode 3

(1)	B	I'm the Mommy, I'm the Mommy okay?	B is putting foods into her basket at food board. E is in store.
(2)	E	Okay. An' you, [where's your child?	
(3)	B	[An'-- You are the child.	B looks at E firmly.
(4)	E	No I'm the payer.	
(5)	B	I don't have a child, don't have a child. I don't have a child.	B shakes her head earnestly.
(6)	E	I don't -- oh okay. [(whu)	
(7)	B	["Hi"	B is talking into board phone.
(8)	E	Some mothers don't have child.	

In (A), both B and E work to establish together at least some shared understanding of how "Mommy" is to be interpreted by both. Although E wants "Mommy" to have a child, and B wanted E to be her child, they agree that B as Mommy will have no child. However, in line (8), B does not attend to E's justification for her interpretation of the

agreement, and neither B nor E ever refer to B as the "Mommy" again.

Coordinated-Additive Accomplishments

In coordinated-additive accomplishments, there is loosely coordinated activity with a minimum of focused negotiation. Each partner contributes, but there may be a fragility to the success of their interactions, because participants are not making an effort to achieve a shared, public understanding of what they are doing together.

The application of this category to successful interactive role play is problematic. It is the very nature of the task that participants alternate contributions in a meaningful sequence. In tnat regard, many sequences in complete social episodes fit here.

Leader-Follower Accomplishments

As described earlier, most subjects directed their partner's activity at one time or another. However, extended sequences of 'leader' domination were found only in the 3-year-old data.

(B) C, 41 mos; D, 46 mos: Session 1, Episode 1

(1) D	Cathy, go right there.	D is behind counter, pointing
	(Go) around, and I'll play with you, 'kay? Now, Cathy, just stay right here. ( ) over there, okay?	C in direction of front of counter. C complies.
.		C rebels and runs around
.		the room. D chases her.
.		(Not transcribed)
	Shhh. Go right here, 'kay? But don't, no running. 'kay? Right here, 'kay, (now) just stay right here, okay? Get back a little further. Okay?	D pushes C to front of counter. C is again in position. C steps back one step.

			D puts foods on shelves (and does other things with store items that are difficult to interpret).
			D has C stand at food board with basket. D returns.
		Okay, can you just, bring them over, to me? Just put them in the ba-basket.	behind counter. C selects items, looking up hesitantly at D after each selection.
		Yeah.	D encourages C.
	(2) C	( )?	
	(3) D	Yeah. Put just some. That's all you can, put in. Now bring it over. And just put it right here. 'kay? Put them right here, 'kay? 'kay?	C comes over to counter with basket, sets it down.

There was a less visible kind of leader-follower interaction in some sessions in which one partner provided primary support for task success. In (C), G either does or requests most of the steps in the episode sequence.

(C) G, 66 mos; H, 68 mos: Session 1, Episode 1

*request total	(1) G	How much are these stuff?	G arrives at counter with basket.
	(2) H	Ummmm, twenty-five cents.	H looks confused, starts to take a bag, it drops.
	(dropped bag conversation deleted here)		
		Twenty-five cents.	G unloads basket onto counter.
*pay bag	(3) G	Okay! Here.	G hands imaginary money to H. H opens bag; G puts foods in.
	(fallen item remarks deleted here)		G puts basket on board.
*thanks		Thank you!	H hands bag to G.
*change		Now, (this), pull that drawer.	G points to cash register drawer. H opens it, takes out a coin.
	(4) H	Here's your change!	H hands G a coin.
	(5) G	Okay! Thank you!	

Doer-Observer Accomplishments

In doer-observer accomplishments, one participant does virtually

all the task work while the other watches. There were no clear cases. (D) is unclear, because D makes an effort to get F to agree to an observer role. However, it does illustrate a form of episode organization which places minimal demands on either partner for perspective-taking or perspective coordination.

(D) D, 46 mos; F, 50 mos: Session 3, Episode 2

(1)	D	Nora?	D approaches F, who sits on chair at side of room.
(2)	F	What?	
(3)	D	Um, ah ( ), then come and get it. Okay?	D starts back to store.
(4)	F	Okay.	
(5)	D	An' you can, an' an' I'll go and bring it to you okay?	D takes some foods into store and starts to bag them.
(6)	F	Okay.	
(7)	D	So don't get up okay?	
(8)	F	Okay.	
(9)	D	I'll try and get it for y', you.	D goes out to board and gets more foods.
(brief conversation about sound of remote camera)			D enters store and bags foods.
(10)	D	I'm going get all the food you want. You want more food and more food? Do you? huh?	D goes back to board for foods.
			D, holding items, walks over to F.
(11)	F	ckhhhhhhhh	F hesitates, nods as if shy.
(12)	D	Okay. I get um.	D goes back to store with foods.
			(Episode continues in this way.)

10. Local Coordination of Task Accomplishment

Requests for Action

The examples below illustrate direct and indirect requests for action. Examples are taken from complete social episodes only. Any request for action to the self in monologue is excluded. Any requests for action which are clear cases of character enactment (e.g. "May I have some of that cake, please, that's on the bottom of there?") are excluded. (However, the reader may notice that several illustrate the ambiguous status of many discourse acts as either clearly in or out of fantasy.) Examples of requests used to establish states of pretense ("Let's pretend...") are found in Chapter VIII.

(A) E, 46 mos; F, 50 mos: Session 1, Episode 8

			E is "paying." She taps numbers on cash register as F waits.
*(1)	F	I need the same money that you had before.	E opens cash register draw, puts money on counter, then hands it to F.
		Thank you.	

(B) C, 41 mos; D, 46 mos: Session 1, Episode 1

*(1)	D	Now you take it to your car, okay?	D hands bag to C.
(2)	C	(nods)	C goes off tentatively toward a chair.

(C) A, 38 mos; B, 38 mos: Session 2, Episode 1

			A is impatiently waiting for B to come to counter. A leans over counter toward B. (Disagreement over B's role ensues, but then B comes to counter.)
*(1)	A	('ady)? Give me something.	

(D) A, 38 mos; B, 38 mos: Session 2, Episode 1

			A refuses to give B her bagged foods. B then tries to enter store. B backs off.
*(1)	B	Dump, my food out and sell (all the) money, okay? Dump the food out. All the food. All (the food).	B thumps on counter.
			A dumps foods out of bag onto counter.
(2)	A	oh piggy oh piggy oh oh piggy oh piggy oh piggy oh piggy	Foods roll all over.
			A and B pick up foods.
(3)	B	(giggles)	
*(4)	A	N'now sell all (the/ that) money. Sell all my money. Sell (all/ up) my money.	A opens cash register, looks in drawer, takes out coin, puts it on top of piled foods on counter.

(E) D, 46 mos; F, 50 mos: Session 3, Episode 1

			F is getting one item at a time from board and putting it on counter. D leans over counter to watch F. (D requests item selection as B had done it.) F ignores D.
*(1)	D	Just get a whole hand-spoo, handful.	

(F) B, 38 mos; E, 46 mos: Session 3, Episode 1

			B puts food in basket.
(1)	E	No Becca Becca, uh no!	E leans out over counter to
*		don't put 'em in [there.	watch.
(2)	B	[(Where?)	B looks at E
*(3)	E	Just take'em by your hand, and put 'em up here (w'right) okay?	E speaks firmly. (E requests item selection as F had done it.) E indicates counter.
(4)	B	Nooo.	B continues to fill basket.
(5)	E	Okay.	E watches B.

(G) G, 66 mos; H, 68 mos: Session 1, Episode 2

*(1)	H	Um, get the bag out.	G then gets bag, holds it up with one hand as H tries to
*		You hold it with both hands.	get an item in. H takes bag and demonstrates for G. G takes bag back and holds it witn

two hands as H bags items.

(H) I, 70 mos; J, 70 mos: Session 2, Episode 1

			In session 1, I and J played store as if it were a delicatessan or country store. In this episode, they arranged it as a supermarket.
*(1)	I	All right, put them all here and then [( )	J arrives at counter with full basket. I indicates counter, then opens cash register.
*(2)	J	[You take it out.	I is absorbed with money.

(I) K, 73 mos; L, 74 mos: Session 2, Episode 2

			K is bagging foods.
*(1)	L	You're gonna deliver it.	L walks off camera.

(J) M, 75 mos; N, 76 mos: Session 1, Episode 1

			M picks up basket, looks at foods. N leans over counter to watch M, then pulls back and watches from behind counter.
*(1)	N	Okay. Now put the food in there, (if you want to put it in there).	

(K) M, 75 mos; N, 76 mos: Session 1, Episode 1

			M is waiting as N prices items.
*(1)	M	ttt, (gotta) go (tnda-tndtnd) the lever.	N begins 'punching' register keys.
(2)	N	hmm hmm	N touches each item in turn, then touches cash register.
*(3)	M	Gotta go tttattttt	M makes register sound and points to register and gestures, as if pulling a lever.
(4)	N	I did!	

Assertions of intent

Subjects sometimes informed their partners of their intention to do the next step in the task. These assertions often occurred just as

the corresponding action was initiated, and therefore they differed from descriptions (illustrated below) only in form. Most assertions of intent served to justify a course of action. As illustrated below, subjects informed one another of their intentions primarily to avoid possible complaint or to refute a complaint. Some discourse acts which were requests for permission in form (e.g. "Let me pay for it," where "pay" consistently accompanied the clerk's actions of getting and bagging a coin). or assertions of procedure ("I need another bag to put the cake in there") were double-coded as assertions of intent; examples of these are included below.

(L) E, 46 mos; F, 50 mos: Session 1, Episode 2

*(1)	E	Okay. Let me pay for it. ( ). This is milk, this is wine, 'kay?	E goes with F's items into store. E sets items on counter. E shows F her items and then taps numbers on cash register, opens drawer, takes out coin, gets bag, bags items and coin.

(M) I, 70 mos; J, 70 mos: Session 1, Episode 1

*(1)	I	Now I have to give (55) cents back.	J just paid. I now opens cash register, takes out coins, puts on counter.

Many assertions of intent occurred in responses to requests for action. The requestee justified noncompliance by explaining what her own competing intention was.

(N) D, 46 mos; F, 50 mos: Session 3, Episode 1

(1)	F	How much is it?	F is waiting in front of counter as D bags. F speaks loudly. D hands F bag.
*(2)	D	How much is it?! I'll tell, I'll put,	D drops other bag, stoops to to get it. D opens cash register,

		I'll get it.	gets coin,
		( ) one dollar.	puts it on counter.
	(3) F	Thank you.	F takes coin.

(O) G, 66 mos; H, 68 mos: Session 1, Episode 3

	(1) G	You have to give me some money in here.	G has just added a pretend cake to her items. She now reaches around to cash register. H is stooping to get a second bag. H gets and opens second bag.
	(2) H	No -- I know.	
*		I need another bag to put the cake in there. That bag won't fit. Pssshh.	H puts 'cake' in second bag.

(P) K, 73 mos; M, 75 mos: Session 3, Episode 1

	(1) M	Here's all your money (giggle).	M puts money on counter. She holds filled basket.
	(2) K	Let me see.	K holds hand out to M. M gathers up coins, but K wants basket, not coins. M puts basket on counter.
*		Let me see how much that is first of all! Let me see how much that is.	
			K begins to price items.

In (Q), an assertion of intent is used to express an intention to substitute one possible task step for another.

(Q) M, 75 mos; N, 76 mos: Session 1, Episode 2

	(1) N	I don't need a bag please.	M is bagging N's items. N had brought her basket to the store. M takes items out of bag.
*(2) M		Mmm. I'll put it in your basket.	

Descriptions of activity

Subjects sometimes informed their partners of their current or just completed efforts. It was rare for a subject to report on her activity spontaneously.

(R) I, 70 mos; J, 70 mos: Session 1, Episode 1
*(1) I I'm calling you. mmmm I dials phone. J watches.

In (S), M reports on her activity spontaneously only after she initially does so to refute N's complaint in (1).

(S) M, 75 mos; N, 76 mos: Session 1, Episode 1

(1) N Aren't you ever gonna? You don't have to buy everything. N leaves store, walks over to M.
(2) M I (giggle) I'm not. I'm buying all my groceries. M continues to load basket.
*
.
.
.
(3) M Look at all this, (giggle) food. I'm still (laugh) passing food out. Look at all the food. Later, M is unloading her basket onto counter.
*

Most descriptions, like M's in (S)(2), were justifications for an ongoing action.

(T) E, 46 mos; F, 50 mos: Session 2, Episode 3

(1) E ...here's your wine.
*(2) F Just a second, I'm putting this in the basket. I dumped, it out for llama. F is off camera.

(U) H, 68 mos; J, 70 mos: Session 3, Episode 1

(1) H Twenty dollars.
*(2) J I already gave you all the money.

Queries regarding the partner's activity

Subjects rarely inquired about their partner's activity. (V) illustrates the unusual case.

(V) M, 75 mos; N, 76 mos: Session 1, Episode 3

(1)	N	"25, 50, 10, ( )"	N is pretending to serve another customer as M selects.
*(2)	M	What are you doing?!	M watches N with a giggle.
			N pushes cash register in.
		Oh yeah. You're doing your job.	

11. Linguistic Devices for Framing Interactive Pretense

Discourse acts are coded for their function in framing pretense. Categories were constructed to reflect (a) their function in planning vs. referring to a state of fantasy (or reality), (b) the presence or absence of lexical reference to a state of fantasy (or reality). Thus four categories were devised:

Planning is done by the 'real' participants from outside the fantasy. Successful uptake constitutes an agreement on the fantasy to be subsequently enacted.

(1) Explicit planning for pretense requires the use of discourse acts that lexically mark pretense (e.g. "Let's pretend...," "Make believe ...," "Let's play that ...") or reality ("It will real(ly) be ...").

(2) Implicit planning for pretense occurs when discourse acts function to communicate the intention that the self or the other transform one state into another but the intended transformation is not lexicalized (e.g. "You be the storekeeper"; "This'll be my house").

Thus explicit and implicit planning are different in that the 'fact' of the state being constructed (whether pretense or reality) is explicitly formulated only in the course of explicit planning.

Assertions (or queries) are formulations of a state of pretense or reality.

(3) Explicit assertions of/queries regarding pretense, are assertions that formulate the existence of an explicit state of

pretense or of reality (e.g. "We're pretending this is a paint jar", "This isn't really a paint jar") and questions that query the existence of an explicit state of pretense or of reality (e.g. "Is this really a paint jar?").

(4) Implicit assertions (or questions) of pretense are assertions that presuppose the existence of a fantasy state (e.g. "This is my house" referring to a corner of the laboratory room" or "I'm the storekeeper") or questions that query the existence of a fantasy state (e.g. "Is this a little gerbil?" referring to a white plastic egg.)

12. Standardized Store Episode Actions and Transactions

A standard set of actions and interactions was compiled on the bases both of intuition and of the data themselves. Only actions and interactions which normatively occur at a particular point in a sequence of actions and interactions were included. Thus, any event which could appropriately occur at any point in the episode were excluded -- for examples, phone calls (regardless of their appropriateness) and service to pretend customers.

Table 30, in Chapter X, contains a listing of the set of actions and interactions examined. Criteria for coding each of these categories are presented below.

Criteria included within brackets ([]) are those used to facilitate coding of valid sequencing of the respective action or interaction; satisfaction of these sequencing criteria is not necessary to code an action or interaction as present and valid. The criteria for sequence validity are suggestive not defining. The specified prior and/or subsequent actions or interactions may no t necessarily be present, and then the coder must use his/her judgment. Omissions are discounted in analyses of valid sequencing. An example of a common omission in the younger subjects' data is the sequence -- put items on counter, clerk prices items, clerk gives change. Of course the clerk cannot give "change" if she was never paid by the customer, but sne does give the customer money at an otherwise valid point in the episode. Thus the criteria for sequence validity are very lenient; they are intended to capture merely the portrayal of reasonably correct sequences.

Actions and Transactions: Codes and Definitions

Call ahead to store (customer)/invite customer to store (clerk)

The 'customer' calls the store, or the 'clerk' calls the customer [before the customer comes to the store]. In order to apply this code, it is necessary that the customer and/or clerk make some reference to one or more critical components of store play -- store, customer, clerk, food, buy, sell, etc. The content of the call may well be otherwise irrational.

Customer travels to store

The customer travels to the store by walking, driving, flying, etc. [before she enters it and begins selecting foods.] In order to apply this code in the problematic case when the customer is walking, the walk must consist of an exaggerated gait and/or accompanied by walking sounds (e.g. "doo doo doo doo doo").

Greet

Either the clerk or the customer greets the other upon or soon after the customer's entry.

Take basket

'Customer' picks up basket [either before she travels to store or before she selects items]. Typically she then uses her basket for collection

of items, but if she does not, she is still credited with 'take basket' as an action in the store sequence. Occasionally a customer begins selecting items by hand, and when she can hold no more, she takes and uses the basket to hold the items; in such cases, she is also credited with 'take basket' [as well as valid sequencing sequencing]. If the customer calls the basket her 'bag' and requests that her purchased items be placed in her 'bag' (i.e. the basket), this does not constitute 'take basket.'

Select items

'Customer' picks up items, either from food board or from outside shelves on store prop, [after she enters the store and before the clerk bags them]. It is not necessary that the customer appear to be selectively choosing particular items. If she requests that the clerk get an item for her, this is coded as 'request items.'

Request items / offer items

The customer requests that the clerk get her an item, or the clerk offers an item to the customer (even if the customer declines it) [after the customer has entered the store and before the clerk bags the item]. Thus essentially any interaction between

clerk and customer regarding selection or a possible selection of items is coded here.

Put items on counter

Customer and/or clerk place customer's items on counter [after customer has selected them (whether she picked them up or she requested them of clerk or she accepted clerk's offer of an item) and before clerk prices them and/or requests pay for them and/or bags them].

Price items

Clerk repeatedly takes an item, then 'punches' front of cash register, takes another item, punches register, etc. [after customer brings her items to the counter and before the clerk bags them]. If the clerk clearly punches regsister yet does not coordinate punching with iteration of items, this is still coded as 'price items.'

Request pay/inform of total cost

Clerk informs customer of total cost of items, or requests payment of total cost [after clerk has priced items and before customer has paid clerk]. If clerk informs customer of an amount yet does not appear to expect payment, or if clerk requests an unspecified amount of money (e.g. "Give me money"), these are still coded as request pay/

inform of total cost.

Pay clerk

Customer extends money, either imaginary or paper play money, to clerk or places money on the counter and informs clerk that she has done so [after being informed of total cost].

Give change to customer

Clerk extends money, either imaginary or paper play money, to customer or places money on the counter and informs customer that she has done so [after customer pays clerk].

Bag items

Clerk and/or customer place items into a paper bag [after items have been selected and placed on counter and priced. Bagging may occur before or after inform cost, pay, and change].

Hand customer filled bag

Clerk hands customer bag filled with her foods, [after bagging the foods the customer placed on the counter.]

Thanks

Customer and/or clerk thank one another [either just as the customer receives her items and is on her way to leave, or, if the groceries are delivered, then after the clerk has come to the customer's home and handed her her groceries]. Either customer or clerk or both may thank the

other. A single "you're welcome" without a 'thanks' is acceptable and coded here as 'Thanks.'

Farewell

Either customer or clerk bid the other farewell, [either as customer leaves store with her bag, or as customer leaves store without her bag prior to a prearranged delivery, or as clerk leaves the customer's home following a delivery].

Delivery

Clerk takes bagged foods, carries them to the customer's home, and gives them to the customer. [at the end of the episode, after all of the above].

13. Formulations of Motive and Purpose

Categories of character intent were defined: generic motive, item motive, generic purpose, item purpose. 'Motives' are statements of or questions regarding need or desire (e.g. "I want some food" or "Do you need a lemon?") for some store item(s), with no stated goal for their use. 'Purposes' are statements of (or questions regarding) intent for use of store item(s) (e.g. "'cause I'm making a lot of dinner"). Either motive or purpose can refer to either items in general ("...food...", "...all these...") or a specific item ("...lemon...", "...milk...") or set of items ("...lemons...", "wine and milk").

Thus the codes are applied as follows.

Generic motive: Any discourse act referring to a need or desire for store items in general, with no stated goal for their use.
"I want food." "You need food."

Item motive: Any discourse act referring to a need or desire for a particular store item.
"Wanna lemon?" "I want ice cream."

Generic purpose: Any discourse act referring to a goal for use of store items in general.
"I'm making a lot of dinner tonight."

Item purpose: Any discourse act referring to a goal for use of a particular store item.
"I need a hot dog for my dinner tonight."

14. Mid-Episode Turn Negotiations and Cross-Episode Carry-overs of Ownerships

Mid-Episode Turn Negotiations

A turn negotiation is defined as any attempt to claim or assign a turn at a role. Claims and role assignments usually formulate a role's name or defining activity. If the claimant is attempting to switch roles, the claim or role assignment is accompanied by actions consistent with the claim effort -- attempts to enter the other's role space, attempts to take the other's role objects.

Mid-episode turn negotiations are turn negotiations which occur before an episode is complete -- i.e., before the customer has obtained her foods in a bag.

Cross-Episode Carry-overs of Ownerships

Carry-overs are claims to objects which are established in one episode and then maintained in subsequent episodes. For example, a child as 'customer' may obtain foods, and then insist on keeping them as 'her' foods even when she then assumes the clerk role.

15. Ritual Sequences

Fragments

Fragments are episode segments that get repeated within an episode. To be coded as a fragment, the repeated series must contain at least 3 actions and/or transactions. (Criteria for coding actions and transactions can be found in Appendix 12.) In the play of one dyad, for example, the 'customer' selected items and placed them in her basket, came to the counter, put items on the counter, and the clerk then bagged them. Then the 'customer' returned to select more items, placed them in her basket, came again to the counter, put these new items on the counter, and the clerk bagged these. Only a repetition, not the initial segment, is coded as a fragment. Repetition is a criterion for segmenting a sequence as a fragment, but the repetition need not be immediate. There were many repeated sequences of 2 actions or interactions, but some of these were potentially reasonable and nonritual efforts to get a task done -- stocking shelves or filling a basket or filling a bag or pricing items, and thus these were not included as fragments, even if their repetitive nature had a rhythmic, ritual character.

Episodes without Arrangement or Turn Change

A complete episode is defined by the completeness of the portrayal (see Appendix 4). If the customer selects foods and later obtains these foods from the clerk in a bag, the episode is complete. If the customer then returns to further food selections, without announcing or in any way arranging this new episode, such an episode

recycle is coded as no arrangement/no turn change. (See criteria for coding Arrangements, Appendix 5.)

16. Monologue Functions

Categories of monologue were constructed to reflect their appropriateness to the store context and their content. Each monologue move (I(m)) is coded as one of the following 6 categories of monologue function. (Note that when there are two simultaneous, overlapping monologues, the talk of any one partner remains the same I(m) move unless she changes the topic of her monologue. See criteria for coding discourse moves, Appendix 2.)

Consistent third party dialogues are telephone conversations of the clerk's with other customers and bosses, service dialogues with other customers in the store, and conversations of the customer's with shopping companions.

Inconsistent third party dialogues are any conversations with a pretend person irrelevant to store play. In these data, they were typically brief telephone calls to an unidentified person ("Hello? Goodbye!") and phone calls with a person not appropriate in a store scenario (mothers, babysitters, Woody Woodpecker).

Consistent accompaniments are accompaniments to (e.g. iterations) or narrative descriptions of ongoing store activities such as selecting items, stocking shelves, counting money, pricing items, bagging.

Inconsistent accompaniments are descriptions of any activity inconsistent with store play. Examples are making "oink" sounds, describing "llama's family", plans for birthday cake, closing a "lunch" bag.

Consistent other monologues are assertions of intent to the self regarding store activity that is not ongoing and idle remarks about

the store setting to the self.

Inconsistent other monologues are comments about accidents (e.g. fallen objects) and assertions of intent to the self regarding nonstore activity that is not ongoing (e.g. where to put a lunch bag).

17. Taking Turns at Roles

A turn negotiation is defined as any attempt to claim or assign a turn at a role. Claims and role assignments usually formulate a role's name or defining activity. If the claimant is attempting to switch roles, the claim or role assignment is accompanied by actions consistent with the claim effort -- attempts to enter the other's role space, attempts to take the other's role objects.

18. Secondary Characters

A secondary character is counted whenever he/she/it is formulated by name or addressed with a formal speaker selection device (e.g. "sir," "ma'am," "miss"). Even if the character is introduced and then immediately rejected by one or both partners, if the character is formulated or addressed, it is counted.

A secondary store character is any person other than the clerk or customer who is appropriate in the store context: other customers, bosses. A secondary nonstore character is any person not appropriate in the store context: frogs, cats, 'real' babysitters, 'real' mothers. The status of a secondary characters as store or nonstore is decided in problematic cases by considering carefully the subject's use of that character. For example, a call by the clerk to "Mommy" to tell her that "we are playing store" does not appear to constitute appropriate store portrayal, and thus "Mommy" is coded as a secondary nonstore character. On the other hand, a clerk call to her husband to discuss dinner plans for after work is appropriate store portrayal, and the husband is coded as a secondary store character.

REFERENCES

Barrett, D. E., & Radke-Yarrow, M. R. Prosocial behavior, social inferential ability, and assertiveness in children. Child Development, 1977, 48, 475-481.

Bateson, G. A theory of play and fantasy. In J. S. Bruner, A. Jolly & K. Sylva (Eds.), Play: Its role in development and evolution. Harmondsworth, England: Penguin, 1976.

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

Bronson, W. C. Developments in behavior with age-mates during the second year of life. In M. Lewis & L. A. Rosenblum (Eds.), Friendship and peer relations. New York: John Wiley, 1975.

Bruce, B., & Newman, D. Interacting plans. Cognitive Science, 1978, 2, 195-233.

Bruner, J.S., Jolly, A., & Sylva, K. Play signals and meta-communication. In J. S. Bruner, A. Jolly & K. Sylva (Eds.), Play: Its role in development and evolution. Harmondsworth, England: Penguin, 1976.

Burns, S. M., & Brainerd, C. J. Effects of constructive and dramatic play on perspective taking in very young children. Developmental Psychology, 1979, 15, 512-521.

Connolly, J. A., & Doyle, A. B. A naturalistic study of social play and social competence in preschoolers. Paper presented at the biennial meetings of the Society for Research in Child Development, Boston, April 1981.

Cook-Gumperz, J., & Corsaro, W. Social-ecological constraints on children's communicative strategies. Sociology, 1977, 11, 411-434.

Dore, J. Outline of the conversational act system of analysis. Manuscript. The Rockefeller University, New York, 1977.

Dore, J., Gearhart, M., & Newman, D. The structure of nursery-school conversation. In K. Nelson (Ed.), Children's language. New York: Gardner, 1978.

Doyle, A. B., Connolly, J., Rivest, L. P. The effect of playmate familiarity on the social interaction of young children. Child Development, 1980, 51, 217-223.

Eckerman, C. O., Whatley, J. L., & Kutz, S. L. Growth of social play with peers during the second year of life. Developmental Psychology, 1975, 11, 42-49.

Eiferman, R. Social play in childhood. In R. E. Herron & B. Sutton-Smith (Eds.), Child's play. New York: Wiley, 1971.

Eisenberg-Berg, N., & Hand, M. The relationship of preschoolers' reasoning about prosocial moral conflicts to prosocial behavior. Child Development, 1979, 50, 356-363.

Elder, J. L., & Pedersen, D. R. Preschool children's use of objects in symbolic play. Child Development, 1978, 49, 500-504.

El'Konin, D. Symbolics and its functions in the play of children. Soviet Education, 1966, 8(2), No. 7, 35-41.

Emmerich, W., Cocking, R. R., Sigel, I. E. Relationships between cognitive and social functioning in preschool children. Developmental Psychology, 1979, 15, 495-504.

Erickson, F., & Shultz, J. When is a context? Some issues and methods in the analysis of social competence. Quarterly Newsletter of the Institute for Comparative Human Development, 1977, 1(2), 5-10.

Ervin-Tripp, S., & Mitchell-Kernan, C. Introduction. In S. Ervin-Tripp & C. Mitchell-Kernan (Eds.), Child Discourse. New York: Academic Press, 1977.

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

Feitelson, D. Cross-cultural studies. In D. Tizard & D. Harvey (Eds.), The biology of play. Philadelphia: Lippincott, 1976.

Fink, R. S. Role of imaginative play in cognitive development. Psychological Reports, 1976, 39, 895-906.

Forbes, D. Recent research on children's social cognition: A brief review. New Directions for Child Development, 1978, 1, 123-139.

Forbes, D., & Lubin, D. The development of applied strategies in children's social behavior. Paper presented at the biennial meeting of the Society for Research in Child Development, Boston, April 1981.(a)

Forbes, D., & Lubin, D. The impact of interpretive procedures on peer interaction. Paper presented at Fourth International Conference on Culture and Communication, Philadelphia, April 1981.(b)

Ford, M. E. The construct of egocentrism. Psychological Bulletin, 1979, 86, 1169-1187.

Frake, C. O. Plying frames can be dangerous: Some reflections on methodology in cognitive anthropology. The Quarterly Newsletter of the Institute for Comparative Human Development, 1977, 1(3), 1-7.

Franklin, M. B. Functions of language in play. Presentation at the Brooklyn College Child Language Conference, April 1980.

Freyberg, J. Increasing the imaginative play of urban disadvantaged children through systematic training. In J. Singer (Ed.), The child's work of make-believe. New York: Academic Press, 1973.

Garvey, C. Interaction structures in social play. Paper presented in the Symposium on Current Research in Children's play, annual meeting of the American Psychological Association, New Orleans, 1974.(a)

Garvey, C. Some properties of social play. Merrill-Palmer Quarterly, 1974, 20, 163-180.(b)

Garvey, C. Play. Cambridge, Massachusetts: Harvard University Press, 1977.

Garvey, C., & Berndt, R. Organization of pretend play. Abtracted in the JSAS Catalog of Selected Documents in Psychology, 1977, 7, 107.

Garvey, C., & Hogan, R. Social speech and social interaction: Egocentrism revisited. Child Development, 1973, 44, 562-68.

Gearhart, M. Social episodes in fantasy role play. Presentation at the New York Child Language Meetings, December 1978.

Gearhart, M. Social planning: Role play in a novel situation. Paper presented at the biennial meetings of the Society for Research in Child Development, San Francisco, March 1978.

Gearhart, M. The child as director and as actor: The planful accomplishment of role play. Presentation at the Brooklyn College Child Language Conference, April 1980.

Gearhart, M. Pretense in role play: Agreeing on identities and events. Presentation at the meetings of the New England Child Language Association, University of Connecticut, April 1981.

Gearhart, M., & Shatz, M. How children accomplish beginnings: Social interaction in the nursery school. Paper presented at the biennial meetings of the Society for Research on Child Development, Southeastern Division, Atlanta, April 1978.

Gelman, R., & Shatz, M. Appropriate speech adjustments: The operation of conversational constraints on talk to two-year-olds. In M. Lewis & L. A. Rosenblum (Eds.), Interaction, conversation, and the development of language. New York: John Wiley, 1977.

Getz, S. K. A dual look at spontaneous cooperative play in the preschool: Free play versus structured environment. Journal of Applied Developmental Psychology, 1981, 2, 59-78.

Goffman, E. Frame analysis. New York: Harper Colophon Books, 1974.

Goldman, B. D., & Ross, H. S. Social skills in action: An analysis of early peer games. In J. Glick & K. A. Clarke-Stewart (Eds.), The development of social understanding. New York: Gardner Press, 1978.

Gottman, J., Gonso, J., & Rasmussen, B. Social interaction, social competence, and friendship in children. Child Development, 1975, 46, 709-718.

Greif, E. B. Sex role playing in preschool children. In J. S. Bruner, A. Jolly & K. Sylva (Eds.), Play: Its role in development and evolution. Harmondsworth, England: Penguin, 1976.

Greif, E. B. Initiation of peer interaction in preschool children. Paper presented at the meeting of the Eastern Psychological Association, Boston, April 1977.

Griffing, P. The relationship between socioeconomic status and sociodramatic play among black kindergarten children. Genetic Psychology Monographs, 1980, 101, 3-34.

Harré, R., & Secord, P. F. The explanation of social behavior. Totowa, New Jersey: Littlefield, Adams & Company, 1973.

Hay, D., & Ross, H. First social games. In B. Sutton-Smith (Ed.), Play and learning. New York: Gardner, 1979.

Howes, C. Peer play scale as an index of complexity of peer interaction. Developmental Psychology, 1980, 16, 371-372.

Hudson, L. M. On coherence of role-taking abilities: An alternative to correlational analysis. Child Development, 1978, 49, 223-227.

Iannotti, R. J. Effects of role-taking experiences on role taking, empathy, altruism and aggression. Developmental Psychology, 1978, 14, 119-124.

Jacobson, J. L. The role of inanimate objects in early peer interaction. Child Development, 1981, 52, 618-626.

Jacklin, C. N., & Maccoby, E. E. Social behavior at thirty-three months in same-sex and mixed-sex dyads. Child Development, 1978, 49, 557-569.

Jennings, K. D., & Suwalsky, J. D. T. Egocentrism and social competence with peers. Paper presented at the biennial meeting of the Society for Research in Child Development, Boston, April 1981.

Keenan, E. O. Conversational competence in children. Journal of Child Language, 1974, 1, 163-183.

Keenan, E. O., & Klein, E. Coherency in children's discourse. Paper presented at the summer meetings of the Linguistic Society of

America, Amherst, Massachusetts, July 1974.

Kurdek, L. Structural components and intellectual correlates of cognitive perspective-taking in first- through fourth-grade children. Child Development, 1977, 48, 1503-1511.

Lee, L. C. Toward a cognitive theory of interpersonal development: Importance of peers. In M. Lewis & L. A. Rosenblum (Eds.), Friendship and peer relations. New York: John Wiley, 1975.

Lewis, M., & Rosenblum, L. A. Introduction. In M. Lewis & L. A. Rosenblum (Eds.), Friendship and peer relations. New York: Wiley, 1975.

Lieberman, A. F. Preschoolers' competence with a peer: Relations with attachment and peer experience. Child Development, 1977, 48, 1277-1287.

Lubin, D., & Forbes, D. Motivational and peer culture issues in reasoning: Behavioral relations. Paper presented at the biennial meetings of the Society for Research in Child Development, Boston, April 1981.

Lucas, T., & Mueller, E. The "da" game delimiter: Precursor to the summons-answer routine and the rhetorical gambit. Manuscript. Abstract appeared in: Stanford Child Language Research Forum, Current Research Resume, April, 1973.

Mallay, H. Growth in social behavior and mental activity after six months in nursery school. Child Development, 1935, 6, 303-309.

Marcus, R. F., Telleen, S., & Roke, E. J. Relation between cooperation and empathy in young children. Developmental Psychology, 1979, 15, 346-7.

Masur, E. F. Preschool boys' speech modifications: The effect of listeners' linguistic levels and conversational responsiveness. Child Development, 1978, 48, 924-927.

Matthews, W. S. Modes of transformation in the initiation of fantasy play. Developmental Psychology, 1977, 13, 212-216.

Matthews, W. S. Sex and familiarity effects upon the proportion of time young children spend in spontaneous fantasy play. Journal of Genetic Psychology, 1978, 133, 9-12.

Mehan, H. Learning lessons. Cambridge, Massachusetts: Harvard University Press, 1979.

Menig-Peterson, C. L., & McCabe, A. Children's orientation of a listener to the context of their narratives. Developmental Psychology, 1978, 14, 582-588.

Miller, G. A., Gallanter, E., & Pribram, K. H. Plans and the

structure of behavior. New York: Holt, Rinehart & Winston, 1960.

Miller, L. The idea of conflict: A study of the development of story understanding. New Directions in Child Development, 1979, 6, 41-51.

Moore, N., Everston, C., & Brophy, J. Solitary play: Some functional reconsiderations. Developmental Psychology, 1974, 10, 830-836.

Much, N. C., & Schweder, R. A. Speaking of rules: The analysis of culture in breach. New Directions for Child Development, 1978, 2, 19-40.

Mueller, E. The maintenance of verbal exchanges between young children. Child Development, 1972, 43, 930-938.

Mueller, E., & Brenner, J. The origins of social skills and interaction among playgroup toddlers. Child Development, 1977, 48, 854-861.

Mueller, E., & Lucas, T. A developmental analysis of peer interaction among toddlers. In M. Lewis & L. A. Rosenblum (Eds.), Friendship and peer relations. New York: John Wiley, 1975.

Mueller, E., & Vandell, D. Infant-infant interaction. In J. Osoksky (Ed.), Handbook of infant development, New York: Wiley, 1977.

Nelson, K. Social cognition in a script framework. In J. H. Flavell & L. Ross (Eds), Social cognitive development: Frontiers and possible futures. Cambridge: Cambridge University Press, 1981.

Nelson, K., & Gruendel, J. M. At morning it's lunchtime: A scriptal view of children's dialogues. Discourse Processes, 1979, 2, 73-94.(a)

Nelson, K., & Gruendel, J. M. From personal episode to social script: Two dimensions in the development of event knowledge. Paper presented at the biennial meetings of the Society for Research in Child Development, San Francisco, March 1979.(b)

Nelson, K., & Gruendel, J. M. Generalized event representations: Basic building blocks of cognitive development. In A. Brown & M. Lamb (Eds.), Advances in Developmental Psychology. Hillsdale, New Jersey: Erlbaum, 1981.

Newman, D. Ownership and permission among nursery school children. In J. Glick and K. A. Clarke-Stewart (Eds.), The development of social understanding. New York: Gardner Press, 1978.

Newman, D. Children's understanding of strategic interaction. Unpublished doctoral dissertation, City University of New York, 1980.

Newman, D., & Gearhart, M. Toward a model of social plans.

Manuscript, University of California, San Diego, 1980.

Nucci, L. P., & Turiel, E. Social interactions and the development of social concepts in preschool children. Child Development, 1978, 49, 400-407.

Parten, M. Social participation among preschool children. Journal of Abnormal and Social Psychology, 1932, 27, 243-269.

Piaget, J. [The language and thought of the child] (M. Gabain, trans.). Cleveland: Meridian, 1955. (Originally published, 1926)

Piaget, J. [The moral judgment of the child] (M. Gabain, trans.). New York: Free Press, 1965. (Originally published, 1932)

Piaget, J. [Play, dreams and imitation in childhood] (C. Gattegno & F. M. Hodgson, trans.). New York: W. W. Norton, 1962. (Originally published, 1951)

Roper, F., & Hinde, R. A. Social behavior in a play group: Consistency and complexity. Child Development, 1978, 49, 570-579.

Rosen, C.E. The effects of sociodramatic play on the problem-solving behavior among culturally disadvantaged pre-school children. Child Development, 1974, 45, 920-927.

Rubin, K. H. Egocentrism in childhood: A unitary construct? Child Development, 1973, 44, 102-110.

Rubin, K. H. Relation between social participation and role-taking skill in preschool children. Psychological Reports, 1976, 39, 823-826.(a)

Rubin, K. H. Social interaction and communicative egocentrism in preschoolers. The Journal of Genetic Psychology, 1976, 129, 121-124.(b)

Rubin, K. H. Role-taking in childhood: Some methodological consider ations. Child Development, 1978, 49, 428-433.

Rubin, K. H., & Krasnor, L. R. Changes in the play behaviors of preschoolers: A short-term longitudinal investigation. Manuscript submitted for publication, University of Waterloo, 1981.

Rubin, K. H., & Maioni, T. L. Play preference and its relationship to egocentrism, popularity and classification skills in preschoolers. Merrill-Palmer Quarterly, 1975, 21, 171-179.

Rubin, K. H., Maioni, T. L., & Hornung, M. Free play behaviors in middle- and lower-class preschoolers: Parten & Piaget revisited. Child Development, 1976, 47, 414-419.

Rubin, K. H., & Pepler, D. J. The relationship of child's play to social-cognitive growth and development. In H. Foot, T. Chapman,

J. Smith (Eds.), Friendship and childhood relationships. London: Wiley, 1980.

Sachs, J., & Devin, J. Young children's use of age appropriate speech styles in social interaction and role playing. Journal of Child Language, 1975, 3, 81-98.

Sachs, J., Goldman, J., & Chaille, C. Presentation at the meetings of the New England Child Language Association, University of Connecticut, April 1981.

Sachs, J., Goldman, J., & Chaille, C. Planning in pretend play: Using language to coordinate narrative development. Paper presented at the annual meeting of the American Education Research Association meetings, 1982.

Saltz, E., Dixon, D., & Johnson, J. Training disadvantaged children on various fantasy activities: Effects on cognitive functioning and impulse control. Child Development, 1977, 48, 367-380.

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

Schank, R., & Abelson, R. Scripts, plans, goals and understanding. Hillsdale, New Jersey: Lawrence Erlbaum, 1977.

Schegloff, E. Sequencing in conversational openings. American Anthropologist, 1968, 70, 1075-1095.

Selman, R. Toward a structural analysis of developing interpersonal concepts: Research with normal and disturbed preadolescent boys. In A. D. Pick (Ed.), Minnesota Symposium on Child Psychology, Minneapolis: University of Minnesota Press, 1976.

Shantz, C. U. The development of social cognition. In E. M. Hetherington (Ed.), Review of child development research, Volume 5. Chicago: University of Chicago Press, 1975.

Shatz, M., & Gelman, R. The development of communicative skills: Modification in the speech of young children as a function of listener. Monographs of the Society for Research in Child Development, 1973, 38, 1-38.

Shields, M. Some communicational skills of young children: A study of dialogue in the nursery school. Paper presented at the Psychology of Language Conference, Stirling, June 1976.

Siegel, I. Nonparametric statistics. Tokyo: McGraw-Hill Kogakusha, 1956.

Smilansky, S. The effects of sociodramatic play on disadvantaged preschool children. New York: Wiley, 1968.

Smith, P. K. A longitudinal study of social participation in preschool children: Solitary and parallel play re-examined. Developmental Psychology, 1978, 14, 517-523.

Smith, P. K., & Sydall, S. Play and non-play tutoring in prescnool children: Is it play or tutoring which matters? British Journal of Educational Psychology, 1978, 48, 315-325.

Sutton-Smith, B., & Heath, S. B. Paradigms of pretense. The Quarterly Newsletter of the Laboratory of Comparative Human Cognition, 1981, 3, 41-45.

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

Vandell, D. L. Sociability with peer and mother during the first year. Developmental Psychology, 1980, 356-361.

Vandell, D. L., Wilson, K. S., Buchanan, N. R. Peer interaction in the first year of life: An examination of the structure, content, and sensitivity to toys. Child Development, 1980, 51, 481-488.

Watson, M. W. The development of social role concepts in preschoolers. Paper presented at the biennial meeting of the society for Research in Child Development, San Francisco, March 1979.

Watson, M. W., & Fischer, K. W. Development of social roles in elicited and spontaneous behavior during the preschool years. Developmental Psychology, 1980, 16, 483-494.

Wellman, H. M., & Lempers, J. D. The naturalistic communicative abilities of two-year-olds. Child Development, 1977, 48, 1052-57.