Child Development, March/April 2007, Volume 78, Number 2, Pages 412–429

From Actors to Agents to Persons: The Development of Character Representation in Young Children's Narratives

Ageliki Nicolopoulou and Elizabeth S. Richner
Lehigh University

This study addressed a puzzling discrepancy in existing research about when children achieve and manifest a mentalistic conception of the person. Narrative research suggests that children do not represent characters as mental agents until middle childhood, whereas social cognition research places this understanding at around 4 years. Using a theoretically informed typology, 617 stories were analyzed composed by 30 children participating in a storytelling and story-acting practice integrated into their preschool curriculum. Results indicated that children's representation of characters shifted from almost exclusively physical and external portrayals of ''actors'' at 3 to increasing inclusion of ''agents'' with rudimentary mental states at 4 and of ''persons'' with mental representational capacities by 5. The developmental trajectories of boys and girls differed somewhat.

Stories portray sequences of actions that are temporally and causally related. But good stories also integrate sequences of actions with depictions of rich and lifelike characters, whose internal states are represented and coordinated with those of other characters, to create rich and complex social dramas. Research in narrative development, however, has not systematically examined the development of children's representation of characters, or at most has done so in limited and fragmentary ways. Nevertheless, there is a degree of consensus about children's explicit portrayal of characters as mental agents. Most findings suggest that children are first able to convey characters' desires, thoughts, plans, and feelings and to connect these to characters' actions with some frequency around 8–9 years of age. Character representations by younger children are reported to be simpler, mostly limited to external descriptions of characters' actions.

These findings seem puzzling, however, in light of the increasing accumulation of evidence on preschool children's social understanding and their theories of mind, which indicates that 4-year-olds are already able to understand themselves and others as mental agents—that is, they can construe their own and others' internal mental processes and use them to understand and explain actions. Why is this psychological understanding purported to be largely missing from young children's portrayals of characters in their stories? The present study sought to address the striking discrepancy between these two sets of findings and to propose a more effective approach to capture children's developing conceptions of the person.

Character Representation in Narrative Research

While narrative development has attracted a good deal of research over the last several decades, children's portrayal of characters has not emerged as a major focus of this research. (For useful overviews of narrative research, see Bamberg, 1997a, 1997b; Berman & Slobin, 1994; Nelson, 1996; Toolan, 2001.) The predominant focus has been to delineate the plot structure of narratives and to analyze how this develops; when children's portrayal of characters has been addressed, it has mainly been considered as an aspect of this development.

This subordination of character to plot in most developmental research on narrative is partly due to

Special thanks are due to the children whose stories were analyzed here, to their parents, and to the two teachers whose classrooms were studied, whose generous cooperation was essential to the research presented here. We would also like to thank several students for their careful and diligent work in helping us analyze these data: Carolyn Brockmeyer, Amy Karpf, Sofia Santos, Vicki Sbrocco, Travis Beebe, and Corey Morano. We are grateful to Jeff Weintraub for extensive consultation, advice, constructive criticism, and other assistance. The data were collected by Ageliki Nicolopoulou and comprise part of her larger archive of young children's spontaneous stories. Elizabeth S. Richner began to analyze the data as part of her MA thesis project and has continued thereafter. An earlier version of this manuscript was presented as a poster at the Biennial Meeting of the Society for Research in Child Development, Albuquerque, New Mexico, April 1999.

Correspondence concerning this article should be addressed to Ageliki Nicolopoulou, Department of Psychology, Lehigh University, 17 Memorial Drive East, Bethlehem, Pennsylvania 18015-3068. Electronic mail may be sent to agn3@lehigh.edu.

the fact that the main approaches take as a point of departure the structuralist model of folktales proposed by Vladimir Propp (e.g., Leondar, 1977; Mandler, 1984; Stein & Glenn, 1979; Stein & Trabasso, 1982). One very influential approach of this sort has been story grammar analysis (e.g., Stein, 1988; Stein & Glenn, 1979, 1982; Stein & Trabasso, 1982; Trabasso & Nickels, 1992; Trabasso & Stein, 1994). This argues that a well-formed story conforms to a particular type of episodic structure, which in turn corresponds to a mental model used by children and adults to comprehend and produce stories. A well-formed episodic structure is organized around the goal-directed activity of a main protagonist who reacts to an initiating event or state of lack and attempts to change it. Specifically, it includes an initiating event that evokes an internal response in the protagonist to achieve a change of state, a goal-directed effort initiated by the main protagonist, attempts to achieve this goal, an outcome, and possibly an evaluative response or reaction to the outcome. This conception of plot structure thus directs attention to one aspect of the mental life of characters, namely goal-directedness or intentionality, whether this is inferable from the plot or explicitly indicated in the story.

A number of narrative researchers have therefore asked when children actually begin to depict characters as having thoughts, beliefs, feelings, hopes, goals, intentions, and plans that frame and motivate their goal-directed activity—in the terminology used by social cognition research, when children begin to portray characters as mental agents. The usual criterion is an explicit mention or description of such inner mental states, and on this basis, narrative researchers broadly agree that children do not portray characters as mental agents with much frequency until around 8 or 9 years of age (Bamberg & Damrad-Frye, 1991; Berman & Slobin, 1994; Fox, 1990, 1991; Leondar, 1977; Shapiro & Hudson, 1991; Stein, 1988; Stein & Glenn, 1982) or even later (Yussen, 1982). As Berman and Slobin (1994, p. 73) remark, ''evaluative commentary attributing inner states to the protagonists demands a level of inference abstracted from what is shown in the pictures beyond the abilities of the younger children in our sample,'' who were 4- to 5-year-olds. Only 9-year-olds in their sample were able to ''attribute inner states and affective responses to the protagonists.'' Similarly, Stein (1988, p. 296) concluded that very few young children use narrative ''to explore internal states, motivation, and thinking of their story characters.''

A partial exception to this pattern can be found in some work by Stein, Trabasso, and associates which has suggested that children begin to represent the inner worlds of characters a bit earlier (e.g., Trabasso & Nickels, 1992; Trabasso & Stein, 1994; Trabasso, Stein, Rodkin, Munger, & Baughn, 1992), but this qualification results mainly from the use of different criteria. Instead of requiring explicit mention of inner mental states of characters that are used to motivate actions or events, this analysis infers the child's understanding of these mental states from plot structure. The rationale for this procedure appears to rest on two premises: (1) constructing stories with a goal-based episodic structure necessarily implies an understanding of psychological causation, and specifically the ability to attribute motives and goals to characters; and (2) if most of the elements of this episodic structure are present in the story, knowledge of the rest can be imputed to the child. On this basis, Trabasso et al. (1992, pp. 163–164) analyzed the same data referred to by Berman and Slobin above and concluded, unlike Berman and Slobin, ''that children in the 3- to 5-year range develop and use naïve theories of intentionality to impose coherence on experience.'' In their strongest claim, Trabasso and Stein (1994, p. 331) argued that ''during early childhood,'' children had already moved from simple descriptions of actions to ''explaining why the actions took place by making [marking?] them with purposes.'' However, it is important to emphasize that in most cases, the goals and purposes attributed here are inferred, sometimes quite indirectly, rather than explicitly mentioned in the stories. For example, Stein and Albro (1997) analyzed a body of stories generated by kindergartners, third graders, and fifth graders using story stems. For kindergartners ($M = 5–6$), only 24% of the stories contained an explicitly mentioned goal (calculated from their Table 1.2 and Table 1.3). And the authors' criteria for ''explicit goal statements'' (p. 24) appear to include wishes or desires that are not explicitly linked to actions or events. Trabasso and Nickels (1992) used even less demanding criteria to infer goals in their analysis of children's narratives (e.g., when a boy and his dog go to sleep, ''they achieve the goal of sleep'' [p. 258]).

Therefore, with respect to young children's narrative representation of characters as mental agents, these revised findings by Trabasso, Stein, and associates do not alter the basic consensus outlined earlier. First, and most critically, they do not actually measure children's explicit representation of inner mental states. Second, even indirectly, this analysis addresses only one aspect of characters' inner mental life—namely, intentionality or goal-directed activity. When narrative researchers have looked for explicit and richly developed portrayals of characters' inner

mental life in children's narratives, they have generally not found these until middle childhood.

Vicissitudes of the Conception of the Person in Social Cognition Research

The findings from narrative research just reviewed accord with earlier claims from research on person perception during the 1970s and 1980s. Those studies typically asked children and adolescents to provide open-ended descriptions of themselves or of a close acquaintance or friend (e.g., Barenboim, 1981; Keller, Ford, & Meecham, 1978; Livesley & Bromley, 1973; Mohr, 1978; Peevers & Secord, 1973; Rholes, Newman, & Ruble, 1990). This research consistently found that young children, up to 6 or 7 years, tend to describe a person in terms of external, physical, and readily observable features, sometimes supplemented by stereotypical actions. It is not until middle childhood, around 8–9 years of age, that children begin to "penetrate cognitively beneath the skin" (Flavell, Miller, & Miller, 2002, p. 218) and their descriptions become more focused on stable personality traits and enduring dispositions, including attitudes, interests, abilities, temperamental qualities, and other internal psychological characteristics. By adolescence, these attributions of stable internal traits begin to get synthesized into an "organized, integrated portrait" of the individual's distinctive personality (Flavell et al., 2002, p. 219).

Since about 1990, however, person perception research has been largely displaced by a body of research on children's theory of mind that has come to dominate the field of social cognition. (For useful reviews, see Flavell & Miller, 1998; Flavell et al., 2002; Wellman, Cross, & Watson, 2001). This research has explored how children construe the internal mental processes of others and use these to understand their actions; in the most ambitious formulation, the question is how children acquire a theory of the other person's mind. According to evidence from the false belief task, starting around age 4, children are able to predict another person's behavior by imputing to them a combination of desires and beliefs, even when children know that the imputed belief is false (Perner, 1991). This has been characterized as a "belief-desire" psychology in that people's actions are seen as stemming from a combination of their underlying beliefs and desires (Bartsch & Wellman, 1995; Wellman, 1990; Wellman & Bartsch, 1994). Specifically, the model used here is that people engage in actions that they believe will achieve their desires, thus placing beliefs at the center of the explanatory system.

Other research suggests that children as young as 3, and perhaps even younger, already show at least a "rudimentary awareness of mental states" (Miller & Aloise, 1989, p. 269), particularly desires and emotions, and some ability to use interpretations of these internal mental states, implicitly and explicitly, in their own everyday interactions (Bartsch & Wellman, 1995; Bretherton & Beeghly, 1982; Dunn, 1988, 1991). Children's explanatory system around 3 years of age has been characterized as a "desire–belief" psychology (Bartsch & Wellman, 1995) in that children begin to talk about thoughts and beliefs, in addition to desires, but thoughts and beliefs do not appear to be central to their larger understanding of human action; they appeal primarily to desires to provide explanations for actions. Several researchers have found that children begin to make a genuine reference to subjective mental states of desire as early as 2 years—much earlier than reference to beliefs (Bartsch & Wellman, 1995; Bretherton & Beeghly, 1982; Shatz, Wellman, & Silber, 1983)—and it has been argued that at this point they operate with a "simple desire" psychology in that they appeal to desires for explanation of human action without reference to thoughts and beliefs (Bartsch & Wellman, 1995).

These findings have important implications for understanding young children's conception of the person. Despite some controversies within theory-of-mind research, there is broad consensus that young children have already begun to conceive of the person as an agent whose internal mental states need to be inferred and whose actions, to a significant extent, can and should be understood in terms of these underlying mental states. Furthermore, at some point during the preschool years, probably around age 4, children begin to integrate these elements of mental life—especially desires, beliefs, intentions, and emotions—into a roughly coherent model with which to explain and predict behavior.

Age Discrepancy in Character Representation Between Social Cognition and Narrative Research

In light of these developments in social cognition research, the findings about character representation in narrative research reviewed earlier seem perplexing. In contrast to narrative research suggesting that children do not seem to represent characters' inner mental life and especially do not use it to explain characters' actions and interactions until well into middle childhood, evidence from current research on children's social cognition presents a strikingly different picture. It shows that even 4-year-olds regularly use a mentalistic conception of

the person by attributing to others mental states, such as thoughts, cognitions, intentions, and desires, which they use to explain people's actions and interactions, even if these mental states are different from one's own. In fact, this age discrepancy has not gone unnoticed and has puzzled several researchers who have tried either to explain it or find ways to minimize it (e.g., Astington, 1990; Benson, 1996, 1997; Kemper, 1984; Kemper & Edwards, 1986; Stein, 1988; Stein & Albro, 1997; Trabasso & Stein, 1994).

Attempts to Explain the Discrepancy

Some initial attempts accepted this discrepancy as developmentally valid and focused on explaining why it occurs. For example, both Kemper (Kemper & Edwards, 1986) and Stein (1988) argued that young children have a good deal of interpersonal understanding, including awareness of emotions, intentions, and other mental states, but the demands of storytelling delay the appearance of this knowledge in their stories. Knowing how to tell a good story entails more than an ability to understand and relate social experience. It requires mastering the structure of a well-formed episode, which takes some time to develop. It also requires that children learn how to integrate their social understanding with the themes and content of the story, which in turn requires grasping the beliefs, values, and goals appropriate for different content themes.

It certainly seems plausible that the demands of storytelling are greater in some respects than the skills required for conversational interactions or experimental tasks. One might therefore expect children's abilities to portray characters in stories to lag behind their psychological understanding demonstrated in social cognition research. However, the size of the gap is considerably larger (about 3–4 years) than one could reasonably expect on these grounds alone.

Our contention is that a key factor contributing to this apparent age discrepancy is methodological. It has to do with the ways in which stories have been elicited from the children, which affect the kinds of narrative material obtained. To lessen the demands of storytelling on young children, as well as to make elicited stories more uniform and thus more easily comparable, narrative researchers have designed various constraining story-elicitation techniques, such as the use of wordless picture books, picture sequences, story-topics, or story-stems. While there are clearly well-considered methodological reasons for these choices, they also entail important limitations, as a number of studies have shown (e.g., Cooper, 1993; Nelson, 1996; Nicolopoulou, 1996; Spinillo & Pinto, 1994; Wellhousen, 1993). In a systematic comparison, Wellhousen (1993) found that the quality of kindergartners' oral stories, as measured by a number of indexes, was higher when they told a story without any props than when they were shown a picture or asked to draw their own picture to accompany the story. In a similar vein, we hypothesize that, instead of facilitating children's representations of characters, these elicitation techniques may also hinder them by defining and restricting the characters they represent, the ways they represent them, and the topics, issues, and concerns that they can incorporate into their stories. In short, we hypothesize that the kinds of narrative material used in most of these studies do not fully capture young children's abilities (and preferences) in character representation.

Attempts to Minimize the Discrepancy

There have been some attempts to minimize this age discrepancy along the lines suggested by Astington (1990), who found the size of the apparent developmental lag difficult to accept. In a series of studies, Benson (1996, 1997) analyzed children's narrations looking for precursors to the full-blown mentalistic conceptions demanded by most narrative research. She examined fictional stories told by 4- and 5-year-old middle-class children as well as narratives by 5- and 6-year-old low-income children elicited with a wordless picture book, looking for references to internal states (e.g., sensations/perceptions, volitions, cognitions) and psychological causation (e.g., internal states used either as antecedents or consequents of actions and events). Benson found that all the children included some references to internal states and psychological causation in their stories, and the frequency increased with age in both studies.

Benson's results provide evidence that young children can express internal states and psychological causation in their stories, but these results do not yet provide a clear picture of young children's developing conceptions of mental agency. For example, the types of internal states recorded differed widely, from simple sensations and emotions to higher order cognitions, thoughts, plans, and complex feelings, and there was no systematic effort to draw distinctions between them. In addition, some of the categories included seem questionable as inner mental states (e.g., relationships and being asleep or awake), and it is not clear how much these categories contributed to the overall results.

Although Benson's research points in the right direction, we concluded that only a more clearly differentiated and theoretically motivated typology of children's conceptions of the person would allow us to capture the full range of children's developing abilities for character representation.

The Current Study

The current study attempted to overcome the limitations just reviewed. First, it used a methodology that allowed children to compose their own stories without imposing any format or restrictions on the stories they told or on the type or number of characters they included. Second, it utilized a conception of character representation that is analytically independent from plot structure. Third, we constructed a theoretically informed typology of personhood to analyze the stories collected, one that attempted to capture the development of young children's mentalistic conception of the person in light of the issues addressed by social cognition and narrative research.

Narratives in Social Context

The stories were generated as part of a storytelling and story-acting practice that was a regular component of the curriculum in the preschool classrooms we studied. Children had the opportunity to dictate stories to their teachers every day, as part of their self-chosen free-play activities, and then acted them out later with their friends during a group-time activity that involved the entire classroom. (More details are provided in the Method section.)

Several features of this practice are worth noting. The children's storytelling is voluntary, self-initiated, and relatively spontaneous: The stories are neither solicited by adults nor channeled by props, story stems, or suggested topics. Thus, children are able to choose their own characters, subjects, and plots. In addition, one result of the group-time enactment is that children tell their stories, not only to adults, but primarily to each other, and they do so in a shared public setting. Thus, children's storytelling and story-acting are embedded in the ongoing context of the classroom miniculture and the children's everyday group life. This facilitates narrative borrowing and cross-fertilization between the children, and they use stories as vehicles for seeking or expressing friendship, group affiliation, and prestige (e.g., Nicolopoulou, 1996, 1997b, 2002). There is evidence that these conditions lead children to produce narratives that are richer, more ambitious, and more illuminating than when they compose them in isolation from their everyday social contexts and in response to agendas shaped directly by adults (e.g., Nicolopoulou, 1996, 2002; Spinillo & Pinto, 1994; Sutton-Smith, 1986, Wellhousen, 1993). Thus, we hypothesized that stories generated through this practice should offer an especially rich body of materials to capture children's conceptions of personhood and to trace their development.

The "Dual Landscape" of Narrative and the "Morphology" of Persons

Bruner (1986) has advanced a view of narrative that goes beyond the Proppian-inspired episodic structure analysis reviewed earlier and in the process analytically disentangles character representation from plot structure. Drawing resources from a wide range of literary theories (e.g., those of Todorov, Greimas, Barthes, Burke), Bruner has argued that the underlying structure of a fully formed narrative involves integrating plot, character, and consciousness. This implies a "dual landscape" of action and consciousness (Bruner, 1986, p. 14) that powerful and gripping narratives must construct simultaneously. The landscape of action consists of "arguments of action: agent, intention or goal, situation, instrument, something corresponding to a 'story grammar.'" And the landscape of consciousness conveys "what those involved in the action know, think, or feel, or do not know, think, or feel." A successful narrative must find effective ways to integrate these two landscapes. The constitutive mental models used to accomplish this integration embody different conceptions of character, of the mental life of characters, and of the relation between characters and events. In order to grasp and analyze these underlying conceptions, we need a theoretically informed "'morphology' of persons" (Bruner, 1986, p. 39) with which to interpret the developing representations of personhood in narrative.

Feldman and Bruner (Feldman, Bruner, Kalmar, & Renderer, 1993; Feldman, Bruner, Renderer, & Spitzer, 1990) have applied this analytic perspective to the stories of 10-year-olds, adolescents, and adults. The challenge remains to apply it to younger children. As Nelson (1996, p. 186) has argued, an important developmental question is "whether and when children incorporate the landscape of consciousness into the landscape of action." To address this question effectively to young children's narrative activity, we need an analytical apparatus suitable for capturing earlier levels of development,

including an appropriate developmental morphology of personhood.

Toward a Developmental Typology of Personhood

As no suitable theoretical model was readily available with which to capture the increasing depth and complexity of children's representations of personhood (discussed in Richner & Nicolopoulou, 2001; for similar observations, see Bruner, 1986 and Tomasello, 1999), we constructed a developmental typology that drew on a range of sources in psychology (reviewed earlier), narratology (e.g., Bal, 1985; Chatman, 1978; Culler, 1975; Rimmon-Kenan, 1983), and philosophy (especially Searle, 1983). Loosely adapting a classification offered by the philosopher Amélie Rorty (1988) for the historical study of western fiction, we proposed three basic levels of character representation: from *actors* to *agents* to *persons*. These three basic categories were further elaborated to yield an eight-level typology (for a schematic overview, see Table 1).

Actors are essentially nonpsychological characters, described exclusively in terms of externally observable actions and characteristics; *agents* are depicted as having simple psychological capacities; and *persons* are depicted with more complex mental representational capacities. In its highest levels, our category of "persons" roughly corresponds to what many theory-of-mind researchers would regard as a full mental agent. The key difference between actors and agents is that for a character to be categorized as an "agent," we require the inclusion of some simple perceptual or psychological capacities, including actions marked as intentional and/or capacities to see, feel, communicate, or react physically or emotionally to events, situations, or other characters. The key difference between agents and persons is that to be categorized as a "person," a character must be explicitly portrayed as having representational beliefs, desires, or intentions—that is, cognitive or emotional inner states focused on specific things or conditions, as opposed, for example, to generalized emotional moods—that motivate and/or direct actions.

To differentiate more fully the category of actors, we adapted narratologists' notion of the development of characters from "flat" to "round" (e.g., Chatman, 1978), although still in terms of externally observable characteristics (Levels 1–2). Within the category of agents (Levels 3–5), theoretical considerations and some implications of prior research led us to differentiate this category into two partly parallel strands, corresponding roughly to Bruner's distinction between the landscapes of action and consciousness. To the extent that children's narratives focus primarily on the landscape of action, they depict characters' actions as implicitly and then increasingly more explicitly intentional. (We should make it clear that we are using the commonsense meaning of "intentions" as conscious purposes, goals, and/or plans that motivate and direct action. Some philosophical discussions use "intentionality" in a broader technical sense to include all thought that is "about" particular things or conditions.) A key distinction here, usefully explored by Searle (1983), is between intention-in-action and prior intention. Although Searle does not suggest a developmental progression between them, for young children such a relationship seems plausible (for further examination of these issues, which accords with our judgment on this point, see Astington, 1999, 2001). In our typology, the expression of intention-in-action is developed through several levels within the category of agents (Levels 3A–5A), whereas the move to explicit depiction of prior intention marks characters as persons. On the other hand, imputations of intentionality do not necessarily capture other dimensions of characters' internal mental life, including perceptions, emotions, and evaluations. To the extent that narrative depictions focus on these aspects of characters' subjectivity, we classified them as oriented to the landscape of consciousness, with several levels of increasing sophistication (Levels 3B–5B).

We also wished to examine whether the development of these two narrative landscapes is gender-related. In particular, previous research offered grounds to expect that, at least in early childhood, the landscape of action may be more fully expressed in boys' stories and the landscape of consciousness in girls' stories. Several studies have suggested that girls may have an earlier and more sophisticated understanding of emotions (Adams, Kuebli, Boyle, & Fivush, 1995; Brown, Donelan-McCall, & Dunn, 1996; Brown & Dunn, 1996; Dunn, Brown, Slomkowski, Tesla, & Youngblade, 1991; Kuebli, Butler, & Fivush, 1995). And previous analyses by Nicolopoulou and others of spontaneous narratives by 3-, 4-, and 5-year-olds have shown significant gender differences in both the content and narrative structure of children's stories (e.g., Nicolopoulou, 1997b; Nicolopoulou, Scales, & Weintraub, 1994) as well as children's conceptions of personhood (Richner & Nicolopoulou, 2001). In the latter study, we found that in their stories boys and girls portrayed different conceptions of personhood, which followed different developmental pathways: girls a socially embedded and interdependent person, who becomes increasingly individuated and self-consciously responsible, and boys a

Table 1
Levels of Character Representation

I. ACTORS are defined simply by actions; they act or are acted upon

Level 1. Action Only: Actors are represented purely by actions and are not further described

Once there was Peter Pan and then a knight came, and Captain Hook. He fighted, and the knight and Peter Pan fighted. Cat Woman and Joker fighted too. (Paul, 3–10)

Level 2. Action+External Descriptions: Actors are fleshed out by externally identifiable characteristics such as physical traits, non-generic names, and possessions. (Underlining indicates key aspects of the story for coding it into that specific level.)

Once upon a time there was a beautiful little princess. Then a prince came. The princess grew up and they married and they had two babies, a boy and a girl. Another prince came and married the other girl. They had a puppy and a little cat. (Lena, 4–1)

II. AGENTS manifest basic psychological capacities that can take two different forms, either as landscape of action (intention-in-action) or as landscape of consciousness

A. Intention-in-Action	B. Simple Consciousness
Level 3A. Implicit Intention: Characters' actions are marked as agentive. *Once there was a foxy and then came a wolf. And then Evan came, then Mason came. And then Evan punched the fox in the face. And the fox fell down and got a bruise and died. And then Mason punched the wolf and he fell down and got a bump on his head and died. (Martin, 3–9)*	*Level 3B*. Simple Perceptual/Attentive Capacities: Agents see, hear, feel, and/or have simple expressive abilities. *Once upon a time there was a little girl. Her name was Rose and she put a nice dress on and her little kitty played with her. And then they walked in the woods and they found a big wolf. And the wolf saw a little girl. [. . .] (Daphne, 3–5)*
Level 4A. Action Response: Agents respond with actions to situations or events, often marked by "because" or "so." *Once there was Superman. Then Spiderman came. Then Batman and Robin came. They fighted three ghosts. The ghosts were still alive, so they just left the ghosts alone. (Edgar, 4–11)*	*Level 4B*. Emotional Response: Agents have emotional reactions to or make evaluations of situations or events. *Once upon a time there was a little girl. There was a kingdom. It had a princess, a queen, a king. They had one baby. And then the wolf came and ate the baby. And the queen was very sad. The end. (Sarah, 4–6)*
Level 5A. Explicit Intention-in-Action: Agents' actions are explicitly marked as intentional or goal-directed. *First there was Leonardo and then Donatello came to help Leonardo fight. And then Raphael came and Michelangelo came to help Donatello fight. And then Shredder came. And then Captain American fighted and then Super Wren came. And then Super Wren helped Donatello to fight using his powers. And then they rest. And then Shredder and Super Wren are the only ones there and they fight. And then that's the end. (Edgar, 4–4)*	*Level 5B*. Explicit Emotion-in-Action: Agents actively produce emotional and/or evaluative reactions in themselves or other characters. *The ghost scared the alligator. And the alligator scared the ghost. And they had a fight. The alligator fighted and he won. The alligator chopped him up and he was still alive. They were just friends again. The End. (Martin, 3–5)*

III. PERSONS have higher psychological capacities that include representational desires, intentions, or beliefs that become coordinated—implicitly or explicitly—with action, with reality, and/or with other characters that have representational capacities.

Level 6. Explicit Desire and/or Belief Representations: Characters have representational desires, beliefs, or intentions, implicitly but not explicitly coordinated with actions.

Once puffin paddled along the pond. The raccoon walked along. The puffin started flying when he saw raccoon. And then he came to the pond, and puffin was swimming in there. And then puffin knew it wasn't afraid. And then raccoon just standed there. And then puffin waddled off. [. . .] (Leila, 4–9)

Level 7. Explicit Coordination of Representational Mental States with Action: Characters' representational desires, beliefs, or intentions explicitly that motivate and/or direct their actions.

Once upon a time a prince lived in a castle. And one night a woman came and offered him a rose. But the prince didn't want the rose. And she turned him into a beast and she put a spell on the castle and all who lived there. And in a town near nearby, there lives a man named Gaston and a beautiful girl named Belle. Gaston wanted to kill the beast. And they went to the castle and killed the beast. (Ethan, 5–1)

Level 8. Contrastive Representations. Persons' representational beliefs or desires are contrasted, equated, or coordinated either with reality, with those of other persons, or with their own previous or future representations.

Once upon a time there was a kingdom. There was a king and a queen and a princess. One time they all went walking in the woods and they got lost. There was a witch in their house. When they came home they said, "My, everything looks different." And the witch jumped out and said, "Surprise!" One time when the little girl (princess), was sleeping, the witch comed into her room and scared her. And she waked up and the witch ran away and the girl said, "Oh, there's nothing here". And the witch came back and knocked on her door and there was no one there and she said, "Oh, there's no one knocking on my door either." Later when she woke up, she was terribly cranky because she didn't have enough sleep. When her parents saw her being so cranky in her room, she couldn't go to school and this was her favorite day. She said, "Mom it's not really my fault. A witch comed in my room." But her Mom didn't believe in witches. The End. (Sarah, 4–8)

Once upon a time an alien was trying to sneak a little piece of treasure from a bad guy named Penguin. Penguin was watching his alien robot and Batman and Robin the Boy Wonder said, "What could that be?" And Batman said, "Hmm, I don't think it's a robot." And then the alien pushed out his arms and shot bullets out of his fingers and Batman said "Oh, I was wrong. It was a robot." And then Batman had a plan. He said, "Let's go back to the bat cave and next time we'll bring our big hammer and smash the robot to pieces. And then Penguin will be screaming when we broke his robot." And then they went back to the robot and went boom, boom, boom, boom, boom, with the hammer, and smashed it to pieces. [. . .] (Jacob, 5–2)

separate and agonistic person, who increasingly becomes a stable, autonomous, and self-conscious mental agent. Given these findings, we wondered whether similar gender differences might appear even when we focus more specifically on children's developing representations of characters as mental agents.

When children's character representations reach the category of persons (Levels 6–8), they are able to integrate the dimensions of action and consciousness fairly effectively; therefore, this parallel classification of intention-in-action and (simple) consciousness applies only to the category of agents. Explicit depictions of what Wellman and others have called simple belief, desire–belief, and belief–desire psychology fall within the category of persons, although for our purposes we have defined the developmental levels somewhat differently. Level 6 is marked by explicit portrayals of representational desires and/or beliefs whose connections to the characters' actions can be readily inferred, but that are not explicitly linked to actions. In Level 7, mental representations are explicitly coordinated with actions. Theory-of-mind research has consistently held that the most sophisticated understanding of persons as mental agents involve linking actions explicitly to false beliefs. In accord with Shatz et al. (1983), we argue that in this respect false beliefs can be treated as one form of a broader category of ''contrastive'' representations—that is mental representations that are explicitly contrasted with reality, with other thoughts or desires or beliefs, with the mental states of other characters, and so on (see also Bartsch & Wellman, 1995, pp. 20–22). Explicit use of contrastive representations in the portrayal of characters thus defines the highest development in our typology (Level 8).

Method

Participants

This study analyzed stories composed by 30 children from five half-day mixed-age preschool classes in a private preschool/elementary school in a college town in the northeastern United States. Participants were selected from two preschool classrooms studied for several years to obtain three age groups of equal size and gender distribution—early 3s, early 4s, and late 4s at the beginning of the school year, with 5 girls and 5 boys per age group. All children from the five classes were sorted into these categories, and participants were randomly selected within each category. Each classroom was headed by the same teacher during this period.

Children's age ranges at the beginning of the school year were as follows: *three-year-olds*: girls ranged from 38 to 39 months ($M = 39$) and boys from 37 to 41 months ($M = 39$). *Four-year-olds*: girls ranged from 48 to 52 months ($M = 51$) and boys from 48 to 50 months ($M = 49$). *Five-year-olds*: girls from 55 to 59 months ($M = 57$) and boys from 55 to 59 months ($M = 57$). (Children in the oldest group started out as late 4s and most turned 5 during the fall semester, but for simplicity's sake we refer to them as 5-year-olds.) The children were primarily from middle- to upper-middle-class families whose parents were mostly professionals or academics. All but two children were White European American and all spoke only English.

Because these were mixed-age classrooms, some children were in the same classroom for 2 consecutive years. Of the children whose stories we analyzed, all the 3-year-olds came into the classroom as new children, while 70% of the 4-year-olds and 70% of the 5-year-olds were in their second year.

Data Collection

This study was part of a long-term project that has examined the development of children's narrative activity in social context (e.g., Nicolopoulou, 1996, 1997a, 1997b, 2002; Nicolopoulou et al., 1994; Richner & Nicolopoulou, 2001). The stories were generated using a storytelling and story-acting practice pioneered by the teacher/researcher Vivian Paley (1988, 1990), which was a regular part of the curriculum in all the preschool classes studied for the entire school year.

The storytelling part of the practice took place every day during ''choice time,'' when children were free to participate in different activities available to them. During this period, the teacher or the teacher's aide was available to take stories from any children who chose to tell them. Each child dictated a story to the designated teacher, who wrote it down as the child told it with minimal intervention. There were always children who volunteered to compose stories, and they usually dictated three to four stories per day in each class. If a large number of children wanted to tell stories, a waiting list was established so that the waiting children could go on with other activities. The storytelling events were voluntary and largely self-initiated; no child was required to compose a story, although some of the more reticent ones were occasionally encouraged to do so. Furthermore, children were allowed to tell any kind of story they wished, portraying any number and type of characters they chose.

The story-acting portion of the practice took place during ''group time,'' with the entire class

assembled. All the stories dictated during that day were acted out in the order dictated. The teacher read the story aloud, after which the child/author first chose which character he or she wanted to play and then picked other children to act out other roles. After all the characters were selected, the teacher read the story aloud once again. As she was reading it, the child-actors acted out the story, while the rest of the children watched attentively. This process was repeated until all the stories dictated during that day were acted out.

The stories in each class were all written in a single ''storybook,'' which we obtained for analysis at the end of the school year. (All parents had signed consent forms to make the stories of their children available to us.) The first author and assistants also visited the classrooms 1 day/week for about $2\frac{1}{2}$ to 3 hr/day, observing the storytelling and story-acting practice and other activities in the classroom. We wrote detailed field notes, but it was not necessary to utilize these for the analyses reported in this paper.

Coding: Character Representation Levels

A coding scheme was constructed based on the typology of levels of character representation discussed earlier (Table 1). Each story was coded for the highest level of character portrayal for any character, and was assigned a score from 0 (no story) to 8 (level 8). ''No story'' indicated a narrative effort that did not meet our minimum story criterion that at least one character performed at least one action. Stories falling in the category of Agents (Levels 3 – 5) were further classified as depicting either Intention-in-Action or Simple Consciousness, while those that contained elements of both were coded as Mixed. For stories coded in the category of Persons (Levels 6–8), the presence of representational desires, beliefs, thoughts, or intentions was in most cases indicated straightforwardly through the use of mentalistic verbs. However, as Searle (1983) has convincingly argued, persons can also express or communicate these mental representations through speech acts such as ordering, requesting, or asserting, and we coded depictions of such speech acts accordingly.

Both authors coded all the data independently and agreed on 97% of the stories. Coding of discrepant cases was resolved through discussion. Most discrepancies were due to oversight by one of us, and in the few cases of genuine disagreement (5 cases out of 617), we coded the story at the lower level of character representation. A third independent coder, who was blind to the age and gender of the children as well as to the hypotheses and predictions of the study, coded a randomly selected set of children and their stories comprising 20% of the total corpus. Intercoder agreement for these stories was 94%, and discrepant cases were again resolved though discussion.

Results

The 30 children included in the study composed a total of 617 stories, ranging from 9 to 44 stories per child for the entire school year ($M = 21$ stories per child). Boys told slightly more stories (55%) than girls, but this difference was not statistically significant. All children composed stories that were coded at a range of character representation levels, and it is worth noting that this was true even within each semester. In the fall, stories by almost all children fell into either two to three different levels (43%) or four to six levels (53%); in the spring, the corresponding proportions were 27% for two to three levels and 67% for four to six levels. A small number of children actually managed to tell stories that spanned all eight levels in the typology. However, our analysis focused on children's overall developmental trajectories.

Because children differed in the number of stories they told, for comparisons we calculated the proportion of each child's stories that fell in each level of character representation. The mean proportions (and standard deviations) for the three major categories—Actors, Agents, Persons—calculated separately for girls and boys are presented in Table 2. A more detailed picture, utilizing the full eight-level typology, is presented graphically in Figure 1. Two 4-way mixed factorial analyses of variance (ANOVAs) were performed on mean proportions with two between (age and gender) and two within (semester and character representation levels) factors for both the eight levels and the three categories. (ANOVAS were also performed on arcsin transformations of mean proportions; because the results were very similar, we decided to report the analysis of mean proportions for ease of presentation.)

To supplement the main analysis using mean proportions, mixed factorial three-way ANOVAS were also performed (a) on children's mean character representation levels for fall and spring and, to sharpen the developmental comparison, (b) on the mean character representation levels for stories told at the beginning and at the end of the year (the first half of stories composed by each child in the fall and the last half of stories per child in the spring). These are reported in the section ''*Some Supplementary Analyses*,'' and the relevant means and standard deviations are presented in Table 3.

Table 2
Mean Proportions and Standard Deviations for Three Major Categories of Character Representation for Girls and Boys, Fall and Spring

	Fall								Spring							
	No story		Actors		Agents		Persons		No story		Actors		Agents		Persons	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
3 year girls	.17	.17	.54	.28	.18	.14	.11	.14	.14	.15	.47	.21	.37	.36	.00	
3 year boys	.09	.06	.79	.17	.12	.12	.00		.04	.05	.64	.17	.26	.17	.06	.07
4 year girls	.04	.06	.39	.19	.44	.16	.14	.24	.00		.23	.18	.51	.27	.25	.16
4 year boys	.06	.13	.57	.09	.32	.19	.06	.08	.05	.11	.22	.13	.60	.22	.13	.10
5 year girls	.02	.05	.05	.07	.55	.18	.37	.28	.00		.00		.42	.27	.58	.27
5 year boys	.00		.32	.30	.57	.19	.11	.16	.00		.11	.11	.58	.17	.31	.27

Developmental Progression: From Actors to Agents to Persons

To assess whether our typology of character representation captured a developmental progression, we first examined the mean proportions of stories falling into each level of character representation for the three age groups. The results showed a developmental pattern along the lines suggested by the typology. Because our analyses using mean proportions violate the sphericity assumption, in the discussion that follows the most conservative Greenhouse–Geisser-corrected F values are reported for these analyses, which often yield fractional degrees of freedom (Stevens, 2002). There was a significant main effect of character (level) for both the three major categories, $F(2.19, 52.51) = 30.26$, $p < .001$, and the more detailed eight-level typology, $F(3.17, 76.13) = 15.35$, $p < .001$, but the main effect of age was not significant. However, there was a significant Character × Age interaction for both the three major categories, $F(4.38, 52.51) = 13.53$, $p < .001$, and the more detailed eight-level typology, $F(6.34, 76.13) = 6.98$, $p < .001$. With increasing age, there was a broadly continuous shift from the lower character levels to the most advanced ones, Character × Age Linear for the three categories: $F(2, 24) = 26.87$, $p < .001$ and Character × Age Linear for the eight levels: $F(2, 24) = 17.24$, $p < .001$. Roughly speaking, the children's narratives showed a developmental shift from a predominance of actors at 3 years, to actors and agents at 4 years, to agents and persons at 5 years (see Table 2).

There was a significant main effect of Gender for the eight-level typology, $F(1, 24) = 4.51$, $p = .04$, but not for the three-level typology. However, there was a significant Character × Gender interaction for the three major categories, indicating that patterns of character representation were different for boys and girls, $F(2.19, 52.51) = 3.86$, $p = .03$, although analysis for the eight-level typology did not show a significant interaction. Boys' stories more frequently represented characters as actors, $F(1, 24) = 8.80$, $p = .01$, with mean proportions of 44.13% for boys and 28.30% for girls, whereas girls' stories more frequently represented characters as persons, $F(1, 24) = 4.78$, $p = .04$, with mean proportions of 24.17% for girls and 11.13% for boys.

Further examination of children's stories within the category of agents indicated that most were classified either as landscape of action or landscape of consciousness, rather than combining elements of both (see Table 4). Moreover, the differences were gender-related. An analysis of mean proportions of these two narrative landscapes for boys and girls' stories at the three ages indicated a significant main effect of landscape, $F(2.66, 33.85) = 30.25$, $p < .001$, as well as significant Landscape × Gender interaction, $F(1.4, 33.85) = 17.37$, $p = < .001$. At every age, boys' depictions of agents focused more frequently on the landscape of action (82%) than the landscape of consciousness (11%), while girls' depictions of agents focused equally on the landscape of action (40%) and of consciousness (42%). Girls were also more likely than boys to depict agents in ways that mixed elements of these two landscapes (19% for girls vs. 7% for boys).

With increasing age, there was a gradual shift in these patterns for both boys and girls, including an increase in the mean proportions for mixed landscapes. In the girls' stories, the mean proportion of mixed-landscape depictions was 0% for 3-year-olds and 39% for 5-year-olds, with corresponding declines in exclusive depictions of both landscape of action (from 54% to 27%) and landscape of consciousness (46–42%). In the boys' stories, the

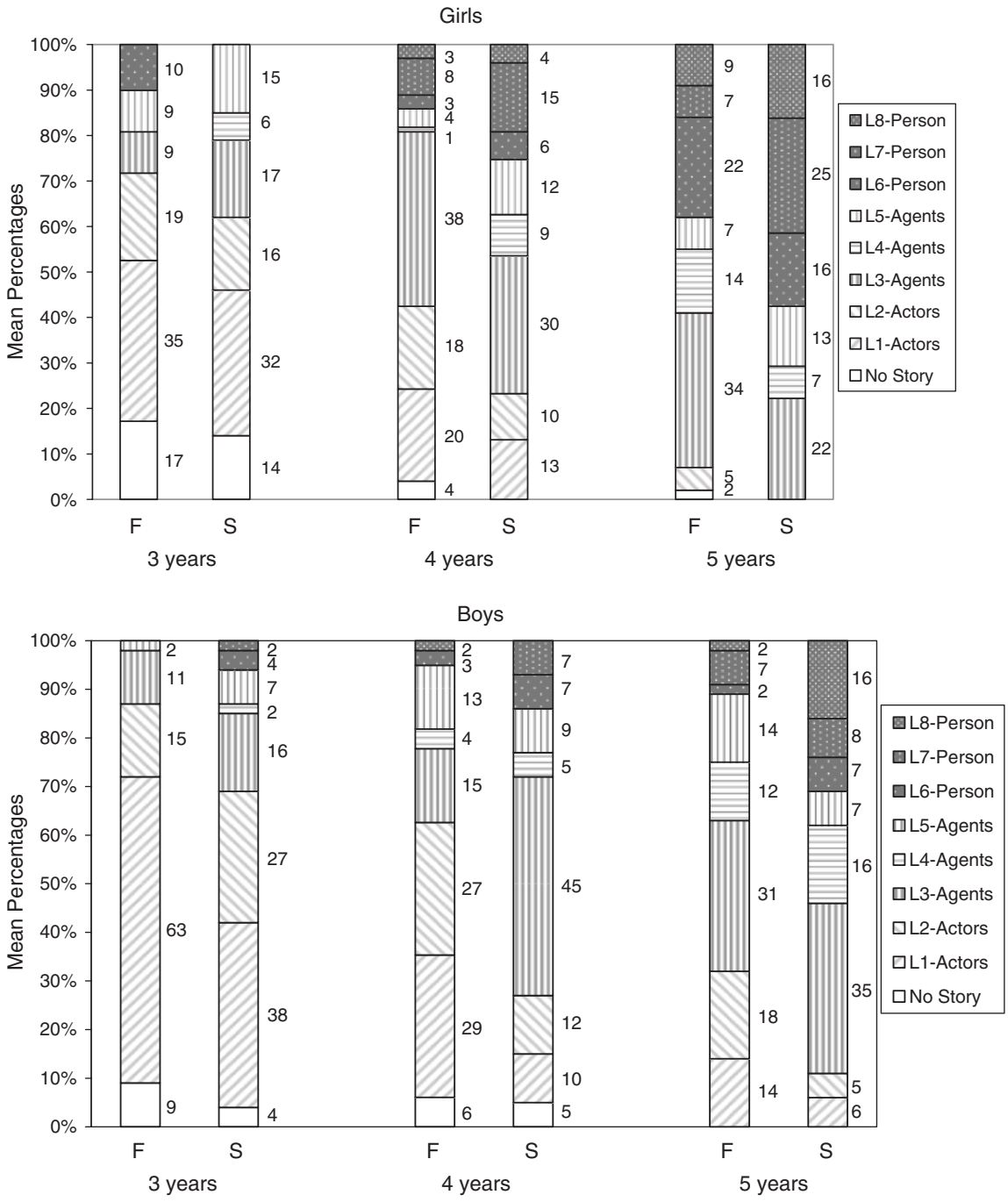

Figure 1. Mean percentages of character representation levels in girls' and boys' stories, for fall (F) and spring (S).

corresponding mean proportions for landscape-of-action depictions decreased from 88% to 69%, landscape-of-consciousness depictions increased very slightly from 12% to 13%, and mixed-landscape depictions increased from 0% to 18%. Overall, the interaction Landscape × Age approached significance: $F(4, 48) = 2.83$, $p = .06$.

Development of Character Representation from Fall to Spring

To assess the development of individual children's character representation over the course of the school year, we examined these mean proportions separately for fall and spring (Figure 1). Once

Table 3
Mean Levels of Character Representation and Standard Deviations in Fall and Spring for (a) All Stories Told and (b) Stories at the Beginning and End of School Year

	(a) All stories[a,b]				(b) First half of fall, last half of spring[a,b,c]			
	Fall		Spring		Fall		Spring	
Group	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Girls								
Age 3	2.10	1.35	2.15	1.19	2.17	1.06	2.45	1.56
Age 4	2.95	1.52	3.91	0.65	3.17	1.51	3.87	0.56
Age 5	4.59	1.35	5.65	1.87	4.12	1.24	5.75	1.07
Boys								
Age 3	1.34	0.33	2.23	0.59	1.43	0.54	2.40	0.76
Age 4	2.48	1.02	3.27	0.53	2.27	1.13	2.83	1.41
Age 5	3.38	1.17	4.46	1.59	3.30	0.91	4.20	1.28

[a]Main effect of age significant.
[b]Main effect of semester significant.
[c]Main effect of gender significant.

Table 4
Mean Proportions of "Agent" Stories with Landscape of Action, of Consciousness, or Both

Group	Total % of stories depicting agents	Narrative landscapes in "agent" stories by each age/gender group[a]		
		Action	Consciousness	Mixed
Girls				
Age 3	.27	.54	.46	.00
Age 4	.48	.39	.44	.17
Age 5	.49	.27	.35	.39
Boys				
Age 3	.21	.88	.12	.00
Age 4	.48	.89	.09	.02
Age 5	.57	.69	.13	.18

[a]These mean proportions are calculated as proportions of all "agent" stories for each age/gender group (totals indicated in the first results column on left).

again, the results supported the pattern hypothesized by our developmental typology (Table 1). While the main effect of semester for the three major categories approached significance, $F(1, 24) = 3.60$, $p = .07$, there were significant interactions for Semester × Age, $F(2, 24) = 3.60$, $p = .04$, Semester × Character, $F(2.31, 55.49) = 9.61$, $p < .001$, and Semester × Character × Age, $F(4.62, 55.49) = 2.85$, $p < .03$. For the eight-level typology, there was a significant Semester × Character interaction, $F(3.86, 92.62) = 2.78$, $p = .03$.

These results further corroborated the hypothesis of a developmental shift in character representation from actors to agents to persons, with a consistent shift from the lower to the higher categories between fall and spring, whether the analysis was based on the three major categories, Semester × Character Linear: $F(1, 24) = 17.91$, $p < .001$, or the full eight-level typology, Semester × Character Linear: $F(1, 24) = 20.11$, $p < .001$. Between fall and spring, 3-year-olds continued to depict a substantial proportion of actors (from 66% to 57%) but doubled their depictions of agents (from 15% to 31%). The 4-year-olds substantially decreased their depictions of actors (from 48% to 23%) and increased their depictions of both agents (from 38% to 55%) and persons (from 10% to 19%). And 5-year-olds, while decreasing their depictions of actors even more sharply (from 18% to 6%), continued to depict high proportions of agents (56% and 50%) and doubled their depictions of persons (from 24% to 45%).

This larger developmental trajectory appeared for both boys and girls when they were considered separately within each age cohort (see Figure 1). The specific proportions at each level differed between boys' and girls' stories, but Semester × Character × Gender interaction based on the full eight-level typology only approached significance, $F(3.86, 92.61) = 2.12$, $p = .09$.

Some Supplementary Analyses (with Means)

In addition to the main analyses just reported, which used mean proportions of different levels of character representation, we undertook further analyses to cross-check and sharpen some of these findings. For this purpose, we calculated and compared each child's mean level of character representation in the fall and in the spring, respectively. The results (see Table 3) again corroborated the hypothesized patterns. Children's character representations improved not only by age, $F(1, 24) = 20.13$, $p. < .0002$, but also between the fall and the spring semester, $F(1, 24) = 17.13$, $p = .001$. For each age cohort, the mean level of children's character representations increased from fall to spring by almost one level, with the exception of the 3-year-old girls. This exception was due in part to the fact that in the fall, two of the girls each told one story coded at Level 6 (see also Figure 1). We suspect that these were stories with which the girls were familiar in stereotypical ways, as they did not use such high levels of character representation in any other stories in the fall or the spring. Overall, at each age the girls' mean levels of character representation tended to be higher than those of the boys, although this gender difference was not quite statistically significant,

$F(1, 24) = 3.79$, $p = .06$. Boys' character representations started lower (fall $M = 1.34$ for 3-year-old boys vs. fall $M = 2.10$ for 3-year-old girls) and remained lower (spring $M = 4.46$ for 5-year-old boys vs. spring $M = 5.65$ for 5-year-old girls).

To provide a sharper picture of the development of character representation over the course of the school year, we restricted this analysis to stories told toward the beginning and toward the end of the year (first half of stories per child in the fall vs. last half of stories per child in the spring). This analysis (see Table 3) further highlighted the overall pattern of results just discussed. Children's character representation levels increased with age, $F(1, 24) = 13.37$, $p < .001$, and also increased consistently from fall to spring, $F(1, 24) = 14.04$, $p < .001$, with a mean increase of about one level from fall to spring for each age cohort. Overall, girls' character representation levels were significantly higher than those of the boys, $F(1, 24) = 6.1$, $p = .02$. The boys' mean levels of character representation increased from 1.43 for 3-year-old boys in the fall to 4.2 for 5-year-old boys in the spring, whereas that of the girls' increased from 2.17 for 3-year-old girls in the fall to 5.75 for 5-year-old girls in the spring.

Representing Characters as Mental Agents

We can now use these results to address more specifically the discrepancy between the narrative and social cognition literatures about whether and when young children begin to depict characters as mental agents. That is, do young children attribute to characters mental states such as beliefs, desires, intentions, and emotions that are used to explain or interpret characters' actions and interactions? And if so, at what ages do children begin to do this with some frequency?

In the developmental typology we have used, the category of "persons" corresponds broadly to the portrayal of characters as mental agents in this sense. As explained earlier, the category of "actors" (Levels 1–2) comprises purely external depictions of characters that convey a prementalistic conception of the person. Depicting characters as "agents" (Levels 3–5) involves some preliminary or ambiguous elements of a mentalistic conception of the person, including implicit attributions of intentionality and/or some rudimentary depictions of generalized moods or emotional states. The category of "persons" involves the explicit portrayal of characters as having representational beliefs, desires, intentions, or emotional reactions that motivate or direct action. The coordination of these inner mental states with actions, reality, and/or the mental states of other characters may be explicit (Levels 7–8) or implicit but readily inferable (Level 6). In either case, the explicit depiction of characters' representational mental states in Levels 6–8 means that the narrative portrayal of characters as "persons" indicates a mentalistic conception of the person.

The relevant data are presented in Table 2 and Figure 1. Overall, the children's representations of characters in their stories moved from a predominance of actors at age 3 to increasing inclusion of agents at 4 and then increasing inclusion of persons at 5. In the stories of 4-year-olds, portrayals of persons also increased noticeably (14% in the fall and 25% in the spring for girls and 6% and 13% for boys), although these were still not frequent, especially for boys. For 5-year-olds, stories including portrayals of persons increased sharply and actually became the largest category for girls' stories in the spring (37–58% for girls and 11–31% for boys).

The proportion of children in each age cohort who portrayed characters as persons also increased with age. Among 3-year-olds, 3 out of 5 girls and 3 out of 5 boys told at least one story including persons, but no girls and only 1 boy told more than one such story. Among 4-year-olds, almost all children told at least one story depicting persons—5 girls and 4 boys—whereas 3 girls and 3 boys told more than one such story. Among 5-year-olds, all 5 girls and 4 of the boys again told at least one story depicting persons, but all 5 girls told more than one such story, along with 3 of the boys.

In short, most children in this study began to portray characters as mental agents in their stories, although not frequently, by age 4. By age 5, substantial proportions of their stories portrayed characters as mental agents—that is, with explicit attribution of representational mental states. These developmental patterns held true for both boys and girls from ages 4 to 5, but at both ages the girls were significantly more likely than the boys to portray characters as persons in their stories. If portrayals of characters as agents with rudimentary psychological capacities are added to portrayals of persons, then stories including agents and/or persons predominated in the stories of both 4- and 5-year-olds.

Discussion

Using both methodological and conceptual innovations, this study sought to reexamine the question of whether and when young children begin to portray characters as mental agents in their narratives. As explained earlier, there has been a puzzling

discrepancy on this subject. In most research on narrative development, there is a broad consensus that children do not begin to represent characters' inner mental life with significant frequency, and especially do not use such depictions to explain characters' actions and interactions, until middle childhood—that is, 8–9 years. In contrast, a large body of research on young children's social understanding and their theories of mind has found that young children, even 4-year-olds, regularly use a mentalistic conception of the person, attributing to others mental states such as thoughts, beliefs, intentions, desires, and emotions that are used to explain and predict people's actions and interactions. Although part of this age gap may be developmentally valid, due to young children's need to master the special formal demands of narrative construction before they can fully incorporate their interpersonal understanding in their stories, a lag of 4–5 years has struck many researchers as implausibly large.

From Actors to Agents to Persons

On the basis of our previous research on young children's narratives, we hypothesized that the techniques usually used to elicit narrative material from young children did not fully capture their actual and potential narrative abilities, including their capacities for character representation. Instead of using narratives elicited by adults in relatively artificial and socially isolated experimental settings in ways that constrain children's narrative choices, we analyzed a large body of narratives composed by children in an ongoing practice of spontaneous storytelling and group story-acting that was integrated into their regular preschool curriculum and their everyday peer-group culture. Drawing on a range of sources in narrative and social cognition research, philosophy, and narratology, we also sought to construct a differentiated and theoretically informed developmental typology with which to capture the gradual emergence of a mentalistic conception of the person in children's depictions of characters in their stories. We proposed an eight-level developmental typology (Table 1) to delineate the increasing depth and complexity of children's narrative representations of personhood, comprising three larger categories of *actors*, *agents*, and *persons*.

To recapitulate briefly, "actors" are nonmentalistic characters depicted purely in terms of actions and other externally observable characteristics. Depicting characters as "agents" manifests what theory-of-mind researchers such as Miller and Aloise (1989) would describe as a "rudimentary awareness of mental states" (p. 269) and of psychological causation; the category of agents thus covers significant precursors of a mentalistic conception of the person. "Persons" (Levels 6–8) are explicitly portrayed as having representational beliefs, desires, intentions, and emotions that motivate or direct action—the phenomena that most developmental research on narrative has not found in children's stories with significant frequency until 8–9 years. Portraying characters as persons in this sense thus meets the criteria of theory-of-mind researchers for portraying them as mental agents. Some theory-of-mind researchers might want to draw a sharper distinction between Level 6, in which the links between inner mental states and characters' actions are mostly implicit but readily inferable, and Levels 7–8, in which these links are explicitly described. We certainly agree that these differences are developmentally significant, but for the purposes of this study we have focused on examining the ages at which children begin to explicitly depict representational mental states in their narrative characters.

The results strongly corroborated the hypothesized developmental patterns. With increasing age, the mean proportions of stories falling into different levels of the proposed developmental typology showed a broadly continuous shift from lower to more advanced levels of character representation (see Table 2 and Figure 1). Actors, by far the largest category in the stories of 3-year-olds, were surpassed by agents in the stories of 4-year olds, and these in turn were almost matched by persons in the stories of 5-year-olds. This overall developmental trajectory appeared whether different children were compared by age or individual children's stories were compared between the fall and spring semesters, and these results were significant both for the three major categories—actors, characters, and persons—and for the more detailed eight-level typology. The same overall developmental pattern was found when each child's mean level of character representation was calculated for fall and spring, respectively, and it was further highlighted when this analysis was applied to the first half of each child's stories in the fall and the last half in the spring (see Table 3).

Gender Differences in the Development of Young Children's Character Representations

Previous research on children's narrative development had led us to expect some gender differences in the developmental patterns found by this study, and this expectation was also confirmed. Although both boys' and girls' stories showed the overall de-

velopmental trajectory just outlined, at every age the girls' stories were more likely to include higher levels of character representation than the boys' and vice-versa. To a certain extent, there appeared to be gender differences not only in rates of development of character representation but also in some pathways of development. Within the category of agents, boys focused on portrayals of intention-in-action, which developed through several levels of sophistication, whereas girls also began to explore subjectivity through rudimentary portrayals of simple consciousness. These results accord with previous findings, mentioned earlier, that girls may have an earlier and more sophisticated understanding of emotions than boys (e.g., Adams et al., 1995; Brown et al., 1996; Dunn et al., 1991; Kuebli et al., 1995), as well as previous analyses by Nicolopoulou and others that found significant gender differences in the form and content of young children's narratives (e.g., Nicolopoulou, 1997b; Nicolopoulou et al., 1994), including the developing conceptions of the person expressed in their narratives (Richner & Nicolopoulou, 2001).

These gender-related patterns in the development of young children's character representations may well reflect differences in narrative preferences between boys and girls as well as differences in narrative ability per se. The relative importance of these factors remains an open question that the present study could not address. However, gender differences in the developmental patterns were clear enough to suggest some open questions that further research should explore.

Resolving the Age Discrepancy Between Narrative and Social Cognition Research

One major implication of the results of this study is a substantial reduction in the age discrepancy between relevant findings reported by developmental research in narrative and in social cognition. The results of the present study suggest that the picture presented by most narrative research, that children do not begin to represent characters in their narratives as mental agents with any significant frequency until ages 8–9, has been misleading. Our analysis places young children's achievement of a mentalistic conception of the person and its regular manifestation in their narratives at age 5. This finding would reduce the relevant age discrepancy between narrative and social cognition research from 4–5 years to about 1 year—a developmental lag that seems quite plausible in light of young children's need to master the formal demands of narrative before they can fully express their interpersonal understanding in their storytelling.

In the stories told by 5-year-olds in our sample, characters were portrayed as mental agents (i.e., persons) with considerable frequency. This was especially true for the girls (mean proportions of their stories including persons were 37% in the fall and 58% in the spring), but significant proportions of the 5-year-old boys' stories included portrayals of persons as well (increasing from 11% in the fall to 31% in the spring). And most of the other stories composed by 5-year-olds included portrayals of characters as agents, indicating some precursors of a mentalistic conception of the person. Exclusive portrayals of prementalistic actors were quite rare by age 5 (in the spring, 0% for the girls and 11% for the boys).

Some portrayals of persons could already be found in stories by 4-year-olds, especially girls, and portrayals of agents were quite common. But there was a major developmental advance in character representation, both quantitative and qualitative, between ages 4 and 5. Overall, 47% of the 5-year-olds' stories portrayed persons, and 14% of their stories—18% in the spring—included explicit depictions of contrastive representations (Level 8). Some 5-year-olds' portrayals of characters as mental agents were strikingly sophisticated in their use of contrastive representations, including false beliefs, to explain characters' actions and interactions. Consider, for example, this story by a 5-year-old boy.

> Once there was Robin Hood. Then a bear came. But the bear was nice. And Robin Hood thought the bear was evil so he shot an arrow at the bear. But the bear knocked the arrow out of the way. The bear didn't fight Robin Hood. So he shot another arrow at the bear. But the bear again knocked the arrow out of the way. After that the bear didn't run at Robin Hood. Bear was a nice bear. So then that told Robin Hood that the bear was a nice bear. So they were friends. Then a bad guy came. The bear and Robin Hood fighted the bad guy. And the bad guy died. And Robin Hood and the bear won the fight. The End. (Edgar, 5–8)

Not only is Robin Hood explicitly described as having a false belief that affects his actions, but he actually corrects this false belief on the basis of new information—specifically, the bear's actions—and this revised understanding allows Robin Hood and the bear to become friends and fight the bad guy together. It is hard to imagine a more genuinely convincing narrative expression of a mentalistic conception of the person.

Why were these results different from those in most other narrative research? As we suggested earlier, one major reason probably lies in the different methods used to elicit the children's narratives. Most research in this area has used narratives elicited by adults in socially isolated experimental settings, using techniques that constrain children's narrative initiative and flexibility. Although there are good justifications for many of these methodological choices, we have argued (e.g., Nicolopoulou, 1996; Richner & Nicolopoulou, 2001) that the kinds of material generated by these procedures do not fully capture young children's actual and potential narrative abilities. Instead, this study analyzed a large body of narratives composed by children in a regular practice of spontaneous storytelling and group story-acting integrated into their everyday preschool curriculum and peer-group life. As we expected, this yielded a richer and more illuminating picture of character representation and its development in the children's narratives. In some respects, this approach may offer a methodological corrective for narrative research similar to that of naturalistically situated family-interaction research in social understanding. Studies by Dunn and others (e.g., Dunn 1988; Raver & Leadbeater, 1993) of young children's participation in everyday conversations in family settings found evidence for certain forms of mental and emotional understanding at earlier ages than had been found by purely experimental theory-of-mind research. Similarly, we sought to examine children's narrative activity in a social context that made it more meaningful for the children involved and that offered them greater opportunities for narrative experimentation, cross-fertilization, and self-expression.

At the same time, in addition to the fact that this material more accurately conveyed the levels of character representation that the children actually achieved, a second factor was probably at work as well. It is likely that children's participation in the storytelling and story-acting practice also helped to promote their narrative development, including the development of their capacities for character representation. (This would certainly be consistent with the findings of previous research involving children's participation in this practice, including Nicolopoulou, 1996, 1997b, 2002). On the basis of the available data, it is not yet possible to analytically disentangle these two factors and to specify their respective roles in explaining the results. However, for the purposes of the current study, sorting out these factors is not of crucial importance, as we were primarily interested in assessing young children's developmental potential at different ages. Once again, the issues involved here deserve attention in subsequent research. It would also be useful for further research to include children from a wider range of cultural, ethnic, and socioeconomic backgrounds than the preschoolers examined in this study.

Some Larger Implications

We would suggest that, in addition to the specific findings of this study, the research reported here also drives home the need for a closer and more systematic integration between narrative and social cognition research. As we hope this analysis has made clear, the ever-expanding body of work on young children's social understanding and their theories of mind offers, among other things, invaluable theoretical and conceptual resources to help narrative researchers refine, deepen, and elaborate their questions and analytical tools. At the same time, narrative research can make important contributions to social cognition research, and these are not restricted to matters of theoretical method and research technique. Because of the crucial role that narrative plays in children's own efforts to construct reality and identity, young children's narrative activity offers an exceptionally rich and illuminating window into their developing modes of thought and images of the world, including their conceptions of the person. But narrative can give us this window only if we study it in contexts that are genuinely meaningful, engaging, and stimulating for the children themselves.

References

Adams, S., Kuebli, J., Boyle, P. A., & Fivush, R. (1995). Gender differences in parent–child conversations about past emotions: A longitudinal investigation. *Sex Roles*, *33*, 309–323.

Astington, J. W. (1990). Narrative and the child's theory of mind. In B. K. Britton & A. D. Pellegrini (Eds.), *Narrative thought and narrative language* (pp. 151–171). Hillsdale, NJ: Erlbaum.

Astington, J. W. (1999). The language of intention: Three ways of doing it. In P. H. Zelazo, J. W. Astington, & D. R. Olson (Eds.), *Developing theories of intention* (pp. 295–315). Mahwah, NJ: Erlbaum.

Astington, J. W. (2001). The paradox of intention: Assessing children's metarepresentational understanding. In B. F. Malle, L. J. Moses, & D. A. Baldwin (Eds.), *Intentions and Intentionality: Foundations of social cognition* (pp. 85–103). Cambridge, MA: The MIT Press.

Bal, M. (1985). *Narratology: Introduction to the theory of narrative*. Toronto: University of Toronto Press.

Bamberg, M. (Ed.), (1997a). *Narrative development: Six approaches*. Mahwah, NJ: Erlbaum.

Bamberg, M. (1997b). A constructivist approach to narrative development. In M. Bamberg (Ed.), *Narrative development: Six approaches* (pp. 89–132). Mahwah, NJ: Erlbaum.

Bamberg, M., & Damrad-Frye, R. (1991). On the ability to provide evaluative comments: Further explorations of children's narrative competence. *Journal of Child Language*, *18*, 689–710.

Barenboim, C. (1981). The development of person perception in childhood and adolescence: From behavioral comparisons to psychological constructs to psychological comparisons. *Child Development*, *52*, 129–144.

Bartsch, K., & Wellman, H. M. (1995). *Children talk about the mind*. New York: Oxford University Press.

Benson, M. S. (1996). Structure, conflict, and psychological causation in the fictional narrative of 4- and 5-year-olds. *Merrill-Palmer Quarterly*, *42*, 228–247.

Benson, M. S. (1997). Psychological causation and goal-based episodes: Low-income children's emerging narrative skills. *Early Childhood Research Quarterly*, *12*, 439–457.

Berman, R., & Slobin, D. I. (Eds.), (1994). *Relating events in narrative: A crosslinguistic developmental study.* Hillsdale, NJ: Erlbaum.

Bretherton, I., & Beeghly, M. (1982). Talking about internal states: The acquisition of an explicit theory of mind. *Developmental Psychology*, *18*, 906–921.

Brown, J. R., Donelan-McCall, N., & Dunn, J. (1996). Why talk about mental states? The significance of children's conversations with friends, siblings, and mothers. *Child Development*, *67*, 836–849.

Brown, J. R., & Dunn, J. (1996). Continuities in emotion understanding from three to six years. *Child Development*, *67*, 789–802.

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

Chatman, S. (1978). *Story and discourse: Narrative structure in fiction and film*. Ithaca, NY: Cornell University Press.

Cooper, P. (1993). *When stories come to school: Telling, writing, and performing stories in the early childhood classroom*. New York: Teachers & Writers Collaborative.

Culler, J. (1975). *Structuralist poetics: Structuralism, linguistics and the study of language*. Ithaca, NY: Cornell University Press.

Dunn, J. (1988). *The beginnings of social understanding*. Cambridge, MA: Harvard University Press.

Dunn, J. (1991). Understanding others: Evidence form naturalistic studies of children. In A. Whiten (Ed.), *Natural theories of mind: Evolution, development, and simulation of everyday mindreading* (pp. 51–61). Cambridge, MA: Blackwell.

Dunn, J., Brown, J. R., Slomkowski, C., Tesla, C., & Youngblade, L. (1991). Young children's understanding of other people's feelings and beliefs: Individual differences and their antecedents. *Child Development*, *62*, 1352–1366.

Feldman, C., Bruner, J., Kalmar, D., & Renderer, B. (1993). Plot, plight, dramatism: Interpretation at three ages. *Human Development*, *36*, 327–342.

Feldman, C., Bruner, J., Renderer, B., & Spitzer, S. (1990). Narrative comprehension. In B. Britton & A. Pellegrini (Eds.), *Narrative thought and narrative language*. Hillsdale, NJ: Erlbaum.

Flavell, J. H., & Miller, P. H. (1998). Social cognition. In W. Damon (Editor-in-Chief), D. Kuhn & R. S. Siegler (Vol. Eds.), *Handbook of child psychology, Vol. 2. Cognition, perception, and language* (5th ed., pp. 851–898). New York: Wiley.

Flavell, J. H., Miller, P. H., & Miller, S. A. (2002). *Cognitive Development* (4th ed.). Englewood Cliffs, NJ: Prentice-Hall.

Fox, R. M. H. (1990). How characters become persons: The development of characterisation in children's writing. In D. Wray (Ed.), *Emerging partners: Current research in language and literacy* (pp. 87–99). Clevedon, UK: Multilingual Matters.

Fox, R. M. H. (1991). Developing awareness of mind reflected in children's narrative writing. *British Journal of Developmental Psychology*, *9*, 281–298.

Keller, A., Ford, L., & Meecham, J. (1978). Dimensions of self-concept in preschool children. *Developmental Psychology*, *14*, 483–489.

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

Kemper, S., & Edwards, L. L. (1986). Children's expression of causality and their construction of narratives. *Topics in Language Disorders*, *7*, 11–20.

Kuebli, J., Butler, S., & Fivush, R. (1995). Mother–child talk about past emotions: Relations of maternal language and child gender over time. *Cognition and Emotion*, *9*, 265–283.

Leondar, B. (1977). Hatching plots: Genesis of storymaking. In D. Perkins & B. Leondar (Eds.), *The arts and cognition* (pp. 172–191). Baltimore: The Johns Hopkins University Press.

Livesley, W., & Bromley, D. (1973). *Person perception in childhood and adolescence*. New York: Wiley.

Mandler, J. M. (1984). *Stories, scripts, and scenes: Aspects of a schema theory.* Hillsdale, NJ: Erlbaum.

Miller, P. H., & Aloise, P. (1989). Young children's understanding of the psychological causes of behavior: A review. *Child Development*, *60*, 257–285.

Mohr, D. M. (1978). Development of attributes of personal identity. *Developmental Psychology*, *14*, 427–428.

Nelson, K. (1996). *Language in cognitive development: Emergence of the mediated mind*. Cambridge, UK: Cambridge University Press.

Nicolopoulou, A. (1996). Narrative development in social context. In D. I. Slobin, J. Gerhardt, J. Guo, & A. Kyratzis (Eds.), *Social interaction, social context, and language: Essays in honor of Susan Ervin Tripp* (pp. 369–390). Mahwah, NJ: Erlbaum.

Nicolopoulou, A. (1997a). Children and narratives: Toward an interpretive and sociocultural approach. In M. Bamberg (Ed.), *Narrative development: Six approaches* (pp. 179–215). Mahwah, NJ: Erlbaum.

Nicolopoulou, A. (1997b). Worldmaking and identity formation in children's narrative play-acting. In B. D. Cox

& C. Lightfoot (Eds.), *Sociogenetic perspectives on internalization* (pp. 157–187). Mahwah, NJ: Erlbaum.

Nicolopoulou, A. (2002). Peer-group culture and narrative development. In S. Blum-Kulka & C. E. Snow (Eds.), *Talking to adults: The contribution of multiparty discourse to language acquisition* (pp. 117–152). Mahwah, NJ: Erlbaum.

Nicolopoulou, A., Scales, B., & Weintraub, J. (1994). Gender differences and symbolic imagination in the stories of four-year-olds. In A. H. Dyson & C. Genishi (Eds.), *The need for story: Cultural diversity in classroom and community* (pp. 102–123). Urbana, IL: National Council of Teachers of English.

Paley, V. G. (1988). *Bad guys don't have birthdays: Fantasy play at four*. Chicago: University of Chicago Press.

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

Peevers, B. H., & Secord, P. F. (1973). Developmental changes in attribution of descriptive concepts to persons. *Journal of Personality and Social Psychology, 27*, 120–128.

Perner, J. (1991). *Understanding the representational mind*. Cambridge, MA: MIT Press.

Raver, C. C., & Leadbeater, B. J. (1993). The problem of the other in research on theory of mind and social development. *Human Development*, *36*, 350–362.

Rholes, W. S., Newman, L. S., & Ruble, D. N. (1990). Understanding self and other: Developmental and motivational aspects of perceiving persons in terms of invariant dispositions. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Vol. 2. Foundations of social behavior* (pp. 369–407). New York: Guilford.

Richner, E. S., & Nicolopoulou, A. (2001). The narrative construction of differing conceptions of the person in the development of young children's social understanding. *Early Education and Development*, *12*, 393–432.

Rimmon-Kenan, S. (1983). *Narrative fiction: Contemporary poetics*. London: Routledge.

Rorty, A. O. (1988). *Mind in action: Essays in the philosophy of mind*. Boston: Beacon Press.

Searle, J. R. (1983). *Intentionality: An essay in the philosophy of mind*. Cambridge, UK: Cambridge University Press.

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

Shatz, M., Wellman, H. M., & Silber, S. (1983). The acquisition of mental verbs: A systematic investigation of first references to mental state. *Cognition*, *14*, 301–321.

Spinillo, A. G., & Pinto, G. (1994). Children's narratives under different conditions: A comparative study. *British Journal of Developmental Psychology, 12*, 177–193.

Stein, N. L. (1988). The development of children's storytelling skill. In M. B. Franklin & S. S. Barten (Eds.), *Child language: A reader* (pp. 282–297). New York: Oxford University Press.

Stein, N. L., & Albro, E. R. (1997). Building complexity and coherence: Children's use of goal-structured knowledge in telling stories. In M. Bamberg (Ed.), *Narrative development: Six approaches* (pp. 5–44). Mahwah, NJ: Erlbaum.

Stein, N. L., & Glenn, C. G. (1979). An analysis of story comprehension in elementary school children. In R. Freedle (Ed.), *New directions in discourse processing* (*Vol. 2*, pp. 53–20). Norwood, NJ: Ablex.

Stein, N. L., & Glenn, C. G. (1982). Children's concept of time: The development of a story schema. In W. J. Friedman (Ed.), *The developmental psychology of time* (pp. 255–282). New York: Academic Press.

Stein, N. L., & Trabasso, T. (1982). What's in a story: An approach to comprehension and instruction. In R. Glaser (Ed.), *Advances in instructional psychology* (*Vol. 2*, pp. 213–267). Hillsdale, NJ: Erlbaum.

Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences* (4th ed.). Mahwah, NJ: Erlbaum.

Sutton-Smith, B. (1986). The development of fictional narrative performance. *Topics in Language Disorders*, *7*, 1–10.

Tomasello, M. (1999). *The cultural origins of human cognition*. Cambridge, MA: Harvard University Press.

Toolan, M. J. (2001). *Narrative: A critical linguistic introduction* (2nd ed.). London: Routledge & Kegan Paul.

Trabasso, T., & Nickels, M. (1992). The development of goal plans of action in the narration of a picture story. *Discourse Processes*, *15*, 249–275.

Trabasso, T., & Stein, N. L. (1994). Using goal-plan knowledge to merge the past with the present and the future in narrating events on line. In M. M. Haith, J. B. Benson, R. J. Roberts Jr., & B. F. Pennington (Eds.), *The development of future-oriented processes* (pp. 323–349). Chicago: The University of Chicago Press.

Trabasso, T., Stein, N. L., Rodkin, P. C., Munger, M. P., & Baughn, C. R. (1992). Knowledge of goals and plans in the on-line narration of events. *Cognitive Psychology, 7*, 133–170.

Wellhousen, K. (1993). Eliciting and examining young children's storytelling. *Journal of Research in Childhood Education*, *7*, 62–66.

Wellman, H. M. (1990). *The child's theory of mind*. Cambridge, MA: MIT Press.

Wellman, H. M., & Bartsch, K. (1994). Before belief: Children's early psychological theory. In C. Lewis & P. Mitchell (Eds.), *Children's early understanding of mind* (pp. 331–354). Hove, UK: Erlbaum.

Wellman, H. M., Cross, D., & Watson, J. (2001). Meta-analysis of theory-of-mind development: The truth about false belief. *Child Development*, *72*, 655–684.

Yussen, S. R. (1982). Children's impressions of coherence in narratives. *Advances in Reading/Language Research*, *1*, 245–281.