

Imaginary Companions and Impersonated Characters: Sex Differences in Children's Fantasy Play

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We compared the incidence of imaginary companions and impersonated characters in 152 three- and four-year-old children (75 males and 77 females). Children and their parents were interviewed about role play in two sessions. Although there were no sex differences in verbal ability or fantasy predisposition, there was a significant difference in the form of children's imaginary characters: girls were more likely to create imaginary companions, whereas boys were more likely than girls to actively impersonate their characters. There were no significant sex differences in the competence ratings of imaginary companions or impersonated characters. These results suggest that it is important to examine the form and function of children's pretense to understand sex differences in fantasy play.

Sex differences in the play of young children are apparent by 13 months of age (Goldberg & Lewis, 1969). Around the world there are fairly consistent differences in the proportion of rough-and-tumble activity, aggression, and use of large spaces, all higher in boys, as well as cooperation, dyadic versus group play, and preference for fine-motor toys, all higher in girls (e.g., Borman, Laine, & Lowe, 1993; Cunningham, Jones, & Taylor, 1994; DiPietro, 1981; Lever, 1978; Mac-

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coby, 1988; Pellegrini & Smith, 1998; Whiting & Edwards, 1988). In fact, play is considered one of the primary routes through which early gender development takes place, such as identification with same-sex play partners and experimentation with cultural sex roles. Pretending, in particular, is likely to reveal important differences in the way boys and girls construe their social worlds. Through fantasy play, children show us how they come to *represent* maleness and femaleness.

The data are equivocal on sex differences in the overall amount of pretending. Some researchers have found more in girls (e.g., Fein, 1981; Jones & Glenn, 1991; McLoyd, 1980), others have found more in boys (e.g., Rubin, Maioni, & Hornung, 1976; Sanders & Harper, 1976), and still others have found no significant differences (e.g., Pulaski, 1970; D. G. Singer & Singer, 1990). Perhaps a more fruitful approach is to investigate the content of fantasy play engaged in by boys and girls. The differences found in past studies tended to focus on toy preferences (see Rubin, Fein, & Vandenburg, 1983, and Ruble & Martin, 1998 for reviews). Caldera, Huston, and O'Brien (1989) reported children as young as 18 months displayed sex-stereotyped toy choices, such as girls preferring dolls and boys preferring trucks. By preschool age, children have no difficulty identifying "sex-appropriate" toys and toy features. In a particularly striking demonstration of this effect, Hort, Leinbach, and Fagot (1991) altered the appearance of typically male-oriented toys to make them more feminine (e.g., a dump truck adorned with padded edges and ribbons) and altered typically female-oriented toys to make them more masculine (e.g., a tea set that had been painted black and decorated with metal spikes). Boys preferred toys with hard, rough edges (e.g., the spiky tea set), which both sexes categorized as "boy toys," whereas girls preferred toys with soft, round edges (e.g., the padded truck), which both sexes labeled as "girl toys."

Social-environmental contributions to sex-typed toy preferences have been investigated extensively (e.g., Caldera et al., 1989; Eisenberg, Wolchik, Hernandez, & Pasternack, 1985; Fagot, 1978; Leaper & Gleason, 1996; Snow, Jacklin, & Maccoby, 1983). In a meta-analysis of this research, Lytton and Romney (1991) concluded that parents respond more positively to sex-traditional play and more negatively to children engaged in cross-sex activities. Theoretical accounts suggest that play with sex-typed toys and parental reactions to such play contribute to the formation of gender schemas (Bem, 1981; Martin & Halverson, 1981). In turn, gender-related aspects of the social world are gradually internalized and expressed through more (or less) sex-typed activities and roles (e.g., Lloyd & Duveen, 1991).

Relatively little is known about sex differences in other forms of fantasy play. One elaborate manifestation of children's fantasy—and

the focus of our research—is the imaginary companion (for a comprehensive review, see Taylor, 1999). Svendsen (1934) defined an imaginary companion as “an invisible character, named and referred to in conversation with others or played with directly for a period of time, at least several months, having an air of reality for the child but no apparent objective basis” (p. 988). Using this definition, Svendsen found that 13.4% of a preschool sample had imaginary companions. Many researchers of this topic have expanded the definition to include personification of objects such as dolls and stuffed animals that are treated as though they have a stable, autonomous personality (Mauro, 1991; D. G. Singer & Singer, 1990). The incidence of imaginary companions ranges from 13% to 65% of preschool children, depending on the definition as well as the type of study (retrospective versus child interview) and the criteria used to identify children with imaginary companions (parent- versus child-report) (Hurlock & Burstein, 1932; Manosevitz, Prentice, & Wilson, 1973; D. G. Singer & Singer, 1990; Svendsen, 1934).

One of the most widely replicated findings in research on imaginary companions is that girls are more likely to have them than boys. Hurlock and Burstein (1932) found that 31% of females and 23% of males in their sample of 701 adults recalled having had an imaginary companion in childhood. Vostrovsky (1895) reported 46 descriptions of imaginary companions, 39 from girls and only 7 from boys. Svendsen's (1934) sample of children with imaginary companions was 75% female. Similarly, Ames and Learned (1946) found that girls were more likely than boys to have human-like imaginary companions (63% female). Mauro (1991) studied 47 children with imaginary companions, 64% of whom were girls. Jersild, Markey, and Jersild's (1933) sample of children with imaginary companions included 82 girls and 61 boys. Two studies (Manosevitz et al., 1973; D. G. Singer & Singer, 1990) did not find sex differences in the incidence of imaginary companions, but to our knowledge there is not a single study in which the number of boys with imaginary companions was greater than the number of girls.

The disproportionate number of girls with imaginary companions does not necessarily indicate that girls are more imaginative in general. There are several other explanations for the sex difference. For example, Jersild (1968) suggested that boys might be less encouraged by adults to engage in pretend play and thus more reluctant to reveal their fantasies to an experimenter. Hurlock and Burstein (1932) found that men reported having created an imaginary companion at later ages (between 7 and 9 years) than women (between 5 and 7 years). This age difference could be responsible for an underestimate of imaginary

companions in boys, because most research on this topic has been with children under 7 years old. However, the imaginary characters created by preschool boys might also be played with differently than the characters created by girls. Ames and Learned (1946) pointed out that there are a number of imaginative behaviors that are not easily distinguished from one another. For example, they described the impersonation of an animal or person as an activity that is closely related to the creation of an imaginary playmate on an "imagination gradient." In their sample of 210 children (number of boys and girls was not reported), they observed more boys than girls (6 and 2, respectively) impersonating animals.

Harris (2000) also noted the importance of considering various forms of what might fall under the category of "role play." He maintains there are three different vehicles through which children may enact a role: using the self as a prop (impersonation), using a doll or toy replica as a prop (personification), and using nothing as a prop (completely imaginary beings). According to Harris (2000), any one of these forms of role play ought to confer similar benefits for children's social and cognitive development. For example, children who engage in more social impersonation play than their peers are perceived as more likable by peers and teachers (Howes, 1988). Similarly, Mauro (1991) found that children with imaginary companions (including toys and invisible ones) were less shy and had more real friends than children without imaginary companions. Taylor and Carlson (1997) found that a high proportion of impersonation and/or imaginary companionship was significantly related to better performance on theory-of-mind measures in 4-year-olds, independent of verbal ability. Note, however, that some studies found no significant social/personality differences between children with and without imaginary companions (Hurlock & Burstein, 1932; Manosevitz et al., 1973).

Although it is tempting to collapse the various forms of role play based on this evidence, there are compelling reasons to examine them separately. As Harris (2000) noted, we know very little about what determines individual differences in children's preferences for one type of play over another. Gleason, Sebanc, and Hartup (2000) also recommended that invisible and personified imaginary companions be considered separately in descriptive studies of the phenomenon. Their conclusion is based on differences between children with the two forms of imaginary companion on assessments of the quality of the child-companion relationship (friendship is emphasized with invisible companions, whereas a hierarchical relationship is emphasized with toys); number of siblings (children with invisible imaginary companions have

fewer siblings and are more likely to be an only child); and potential reasons for the appearance of the pretend friend according to maternal report (invisible imaginary companions are more often believed to be associated with a need for companionship).

We propose that a child's sex is another critically important factor to consider in differentiating various ways of creating imagined characters and the potential functions they serve in children's lives. Researchers might be missing a substantial part of the picture when only one form of role play is investigated, resulting in a rather confusing literature on sex differences in fantasy play. The primary purpose of our research was to carry out a comprehensive study of role play in which we directly compare the incidence of imaginary companions and impersonation activities in typically developing boys and girls. We interviewed children and their parents in the preschool period, the "high season" of pretend play according to D. G. Singer and Singer (1990). Our hypothesis was that imaginary companions would be more common for girls, whereas impersonation would be more common for boys. To further test whether the finding of a higher incidence of imaginary companions in girls might be due to the inclusion of personified toys in some definitions, we recorded whether the friend was a doll/stuffed animal or invisible. We also included multiple measures of pretense to examine whether sex differences were broad or limited to the form of children's imaginary characters.

A second aim of our research was to begin to address the functions served by children's fantasy characters and whether they differ for males and females. J. L. Singer and Singer (1981) found that whereas adventure and superhero themes were favored by preschool boys (e.g., monsters, spacemen), girls of this age showed a clear preference for family pretend roles (e.g., mother, father, baby), playing house, and dress-up (see also Fein, 1981). More recent studies suggest some movement on the part of girls toward adventure/heroic play, but the opposite shift does not appear to be happening for boys (Fagot & Leinbach, 1993). This analysis raises the possibility that fantasy characters might "empower" children in different ways. Harter and Chao (1992) investigated this question in a study of children's imaginary companions. They interviewed children with imaginary companions to determine if the companions tended to be viewed as more or less competent than the children themselves. Competence was assessed on 28 items across cognitive, physical, and social domains by asking children to rate their imaginary companions and themselves as being good or not good at each item on a pictorial scale. Fifteen of the 20 girls created imaginary companions that were described as less competent than themselves,

whereas 14 of the 20 boys showed the opposite pattern, that is, the imaginary companions were described as more competent than the boys themselves. It is important to note that in their ratings of themselves, girls and boys did not differ. Harter and Chao (1992) interpreted their results in terms of the sex-role stereotypes that preschool children are already well aware of (e.g., Fagot, 1985; Maccoby, 1988). Girls believe they need to be able to protect and nurture, whereas boys are supposed to be strong and powerful.

The present investigation extends earlier findings by including an assessment of impersonation as well as imaginary companions. Boys' preference for adventure and superhero themes might lead them to create characters who are powerful and highly competent, that is, the kind of character they would be inclined to act out. Girls, on the other hand, might invent a separate entity who is relatively powerless and needs nurturing. Hence, differences in the competence of the imagined character might be driving differences in the form that the character takes. To examine this hypothesis, we included in our interviews open-ended questions to elicit details about the imagined characters. We did not assess competence directly in the same manner as Harter and Chao (1992), because it was not feasible given our multiple assessments to include 28 questions about the imaginary companion and/or impersonated character as well as 28 about the self. Instead, the information children spontaneously provided in response to structured questions allowed us to gauge the level of competence of the fantasy figures. If power status is guiding the form of role play, then impersonated characters would be described as more competent and imaginary companions as less competent by both sexes. On the other hand, if a child's sex is more important in determining the form of characters, then girls will be more likely than boys to create imaginary companions and boys will be more likely than girls to impersonate, regardless of the competence level of the character. In sum, the two major goals of our study were (1) to provide descriptive data on the incidence of imaginary companions and impersonated characters in a large sample of male and female preschoolers, and (2) to explore the potential functions served by these two different vehicles of fantasy role play.

Method

Participants

The participants were 75 boys (M age = 4;0, SD = 5.2 months; range = 3;4 to 4;8) and 77 girls (M age = 4;0, SD = 4.9 months; range = 3;4

to 4;7) who were part of a large study of the relation between individual differences in fantasy and social understanding. Children were recruited from former birth announcements in the local newspaper and advertisements in day-care centers. The participants were predominantly white (two African American children and one Asian child) and from lower-middle-class and middle-class backgrounds, reflecting the community from which the sample was drawn (a medium-size western U.S. city that is 92% Caucasian). Boys and girls were matched on number of siblings (M boys = 1.4, SD = 1.47; M girls = 1.4, SD = 1.4) and whether they attended day care (73% of boys and 76.6% of girls). Thus, any sex differences observed would not be attributable to differences in the number of potential playmates at home or at school.

Procedure

Informed, written consent was obtained from a parent or legal guardian, and children gave oral assent before participating. The procedure was divided into two 45-minute sessions spaced about one week apart to minimize the length of the test sessions. Both sessions were videotaped. Children were assessed individually by a female experimenter (E). The first session included (1) a language assessment, (2) role-play interview with the child, (3) pretend action tasks, (4) free play with blocks, and (5) two measures of preference for fantasy- or reality-oriented toys. The second session included (1) a continuation of the role-play interview with the child, (2) free play with dress-up items, and (3) two more toy/gift preference measures. Parents completed questionnaires and were interviewed about their children's fantasy behavior at both sessions.

Verbal Ability

It was important to assess verbal ability to ensure that any sex differences found could not be explained entirely by differences in language skill. Children were given the Peabody Picture Vocabulary Test-Revised (PPVT-R; Dunn & Dunn, 1981).¹ The Peabody is a widely used measure of verbal ability in which children point to pictures representing target words spoken by E. Testing continued until children erred on 6 out of a set of 8 words.

¹ The updated PPVT-III was not yet available at the time of testing.

Role-Play Interviews

Determining whether children had an imaginary companion and impersonated characters was a critical part of our procedure. In addition to invisible characters, most researchers (e.g., Mauro, 1991; D. G. Singer & Singer, 1990) also categorize certain toys (e.g., stuffed animals or dolls) as imaginary companions if children treat the animal or doll as if it had a stable personality (similar to Hobbes in the comic strip *Calvin and Hobbes*). Following Taylor, Cartwright, and Carlson (1993), we asked about imaginary companions in the following way: "Now I'm going to ask you some questions about friends. Some friends are real like the kids who live on your street, the ones you play with. And some friends are pretend friends. Pretend friends are make-believe, ones that you pretend are real. Do you have a pretend friend?"

Children who answered "yes" were then asked a series of questions about the friend, including questions about its name, whether it was a toy or completely pretend, its age, sex, and physical appearance, what the child liked and did not like about the friend, and where the friend lived and slept. This fairly extensive questioning about imaginary companions was done to add more descriptive information to the literature and to gauge the level of competence of the imaginary companions created by boys and girls.

Children were also asked about impersonation in the following manner: (1) Do you ever pretend to be an animal? What animal do you pretend to be? (2) Do you ever pretend to be a different person? What person do you pretend to be? (3) Have you ever pretended to be anything else like a machine, airplane, or something like that? What sort of thing did you pretend to be?

While children were being interviewed, in a separate room parents were asked to respond to similar questions and to provide details about their child's imaginary companions and impersonation games. Imaginary companions were described in the following way: "An imaginary companion is a very vivid imaginary character (person, animal) with which a child interacts during his or her play and daily activities. Sometimes the companion is entirely invisible; sometimes the companion takes the form of a stuffed animal or doll. An example of an imaginary companion based on a stuffed animal is Hobbes in the popular comic strip *Calvin and Hobbes*."

If parents said their child had an imaginary companion currently or in the recent past, we asked them to describe its name, invisible versus toy status, physical appearance, age, and sex. Parents reported the approximate total number of imaginary companions but were asked to

describe only the most prominent one in detail. If the imaginary companion named by the child or parent was a toy, we asked parents about the amount of time the child played with the toy, whether the toy had an air of reality for the child, and in general whether the toy functioned like Hobbes in *Calvin and Hobbes*. Scoring procedures are described in the Results section.

We also asked parents to report whether their child ever pretended to be an animal, person, or object/machine. If they said yes, then we asked them to “describe the animal/person/object your child has pretended to be.” We also requested information about the frequency of the impersonation activity. Their choices were “once or twice,” “occasionally,” and “every day” for a period of “days,” “weeks,” or “months.” Note that children and parents were asked fewer questions regarding impersonated characters than imaginary companions. In part this was because the impersonated characters tended to be well-known or generic figures, whereas the imaginary companions were often idiosyncratic and required more information to make a competence judgment.

Other Measures of Pretense

Children were asked additional questions about play preferences in the course of the interviews. We inquired about their favorite toy, television programs, and stories. In addition, we used J. L. Singer’s (1961) Imaginative Play Predisposition Interview, including the following questions: What is your favorite game? What do you like to do when you are by yourself? Do you ever have pictures in your head? Do you talk to yourself when you are lying in bed? What do you like to think about just before you go to sleep? For each item, children received a score of 0 (reality-oriented) or 1 (fantasy-oriented).² These questions were repeated in Session 2, and so children’s scores were averaged across sessions for data analysis. They also participated in the following behavioral measures of pretense. These were included to determine whether sex differences would be specific to role play or hold across a broader array of fantasy measures.

Toy preference. We asked children to choose between a reality- and fantasy-oriented toy on four separate occasions (at the beginning and end of Session 1 and Session 2). The toy pairs were a ball-and-cup

² Coding of the fantasy measures was found to be reliable. See Taylor and Carlson (1997) for reliability data.

game (reality-oriented) versus a wand with streamers (fantasy-oriented), a wooden top (reality-oriented) versus a finger puppet (fantasy-oriented), a book about farm animals (reality-oriented) versus a book about animals dressed up like people (fantasy-oriented), and a ball (reality-oriented) versus a paper crown (fantasy-oriented). We recorded the toy children chose on each occasion; no further observation was conducted. Scores reflected the total number of fantasy-oriented toy selections (out of 4).

Pretend actions. A major development in pretend play in the preschool period involves the ability to use imagined objects in action sequences (Elder & Pederson, 1978; Overton & Jackson, 1973). Children first use parts of their body to represent imaginary objects and later pretend to use the objects in a symbolic fashion. For example, Overton and Jackson (1973) found that when children were asked to pretend to brush their teeth with a toothbrush, 3-year-olds tended to use their finger *as* a toothbrush, whereas 4-year-olds tended to hold an imaginary toothbrush to their teeth. In our study, after a brief warmup in which E demonstrated pretending to be asleep, we asked children to perform six pretend actions: combing hair with a comb, drinking from a cup, brushing teeth with a toothbrush, hammering a wooden peg with a hammer, cutting a block with a knife, and cutting paper with scissors. For each action, children's responses were scored as involving either a body part (0) or an invisible object (1). Total scores could range from 0–6.

Free play. On two occasions, we gave children toys to play with for 3 minutes while E moved to a corner of the room to fill out papers. In one session they were given colorful blocks (reality-oriented props), and in the other session they were given a selection of dress-up hats and clothes (fantasy-oriented props), including traditional feminine and masculine items (e.g. feather boa, Indian headdress). A full-length mirror was situated near the hats. Two independent observers who were blind to the purpose of the study rated the fantasy content of children's play in each session from 1 (little fantasy) to 3 (extensive fantasy).

Results

Verbal Ability

Boys' and girls' standard scores on the PPVT-R were not significantly different: M boys = 107.1, SD = 12.4; M girls = 106.6, SD = 12.8. Thus, any differences in fantasy play were not likely to be due to sex differences in verbal ability.

Imaginary Companions

Two aspects of role play were investigated: imaginary companions and impersonated characters. We first describe the results pertaining to imaginary companions.

Incidence. In past research, a large percentage of children have been categorized as having imaginary companions (as many as 65%; D. G. Singer & Singer, 1990). Although it is true that many children answer “yes” when asked if they have a pretend friend (51% in our sample, averaged across sessions), we have found that at least some of these children are making up a pretend friend spontaneously in response to the question. These children might be considered to be high in fantasy, but probably they should not be described as having an imaginary companion. In addition, some children described a doll or stuffed animal that is rarely played with according to the parent. In this study we used relatively stringent criteria for identifying children with imaginary companions. Children were asked about the existence of an imaginary companion at Session 1 and Session 2, and parents were also interviewed about their children’s imaginary companions. All cases were analyzed according to the following criteria.

We categorized children as *having* an imaginary companion if they (1) provided a description of an imaginary companion at Session 1, named the same imaginary companion at Session 2, and the parent said the description did not correspond to a real friend (unless the child clearly was describing a pretend version of a real person) or, in the case of a doll or stuffed animal, the parent said the child played with the toy a lot currently or in the recent past and treated it as if it were real and autonomous (Mauro, 1991); (2) said “yes” at Session 1 or Session 2 and named an imaginary companion described independently by the parent; or (3) described different imaginary companions at the two sessions and the parent said the child had lots of imaginary companions (parent might describe a third).

Children were categorized as *not* having an imaginary companion if they (1) said “no” at both visits (even if the parent said “yes”);³ (2) said “yes” but could not provide any details (e.g., a name) for the imag-

³ Parents said “yes” and the child said “no” (at both sessions) regarding imaginary companions in six cases of girls and four cases of boys. An additional boy whose parent said “yes” did not answer questions about imaginary companions. We were conservative in our scoring criteria and classified these children as not having an imaginary companion. The possibility that we missed some legitimate imaginary companions was similar across sex (7.8% of girls, 6.7% of boys) and did not change the outcome in sex differences on this variable when they were reclassified or excluded from the analyses.

Table 1. Percent of Girls and Boys in Each Role-Play Category

	Girls ($N = 77$)	Boys ($N = 75$)
Imaginary companion only	27 (21)	12 (9)
Impersonation only	5 (4)	17 (13)
Both imaginary companion and impersonation	8 (6)	8 (6)
No imaginary companion or impersonation	60 (46)	63 (47)

Note: N s are shown in parentheses.

inary companion; or (3) the parent said the child did not play much with a toy named as an imaginary companion by the child. Two coders examined the data from these three sources independently for 40% of the participants (94% agreement; disagreements were resolved by a third coder). The remaining cases were discussed jointly by the coders.

When children were first asked if they had a pretend friend, girls were more likely than boys to respond "yes," 61% and 42%, respectively, $X^2(1, N = 152) = 5.26, p < .05$. According to our criteria (which examined both child and parent report), 42 of the 152 subjects (28%) qualified as having an imaginary companion. Of these children, 27 (64%) were female and 15 (36%) were male. This sex difference was significant, $X^2(1, N = 42) = 5.1, p < .05$. Table 1 shows the proportion of girls and boys with and without imaginary characters. The preponderance of girls in the imaginary companion group is consistent with most previous research on this topic (e.g., Mauro, 1991; Svendsen, 1934). In addition, among the subjects who had imaginary companions, girls tended to have several of them ($M = 3.8, SD = 3.63, range = 1$ to 13), whereas boys tended to have only one or two ($M = 1.8, SD = 1.5, range = 1$ to 6), $t(39) = 2.0, p = .05$. (One girl was excluded from this analysis because she had innumerable imaginary companions according to the parent.) In cases when children had more than one imaginary companion, we collected detailed information about only the primary ones because it was not feasible for preschool-age children to endure lengthy interviews in addition to the other tasks in the sessions.

Physical characteristics. We analyzed the physical descriptions children provided of their primary imaginary companion. The characteristics of the imaginary companions created by boys and girls were surprisingly similar. The sex of the imaginary companion was most often the same as the child's (64% of the cases), although girls were more likely to have an opposite-sex imaginary companion than boys, as shown in Table 2, $X^2(2, N = 39) = 10.68, p < .01$. Two girls and one boy said their primary imaginary companions were collectively both

Table 2. Characteristics of the Imaginary Companions (ICs) Created by Girls and Boys

	Girls (<i>N</i> = 27)	Boys (<i>N</i> = 15)
Sex		
Female	56%	13%
Male	37%	80%
Number of ICs	3.8	1.8
Type of IC		
Toy	41%	67%
Invisible	59%	33%
Identity		
Person	71%	60%
Animal	25%	27%
Age relative to child		
Same	40%	46%
Older	32%	31%
Younger	28%	23%
Range	3 months–96 years	2–100 years

male and female (e.g., “the Kids,” a group of same-age invisible peers). This difference in the sex of the imaginary companion was found in many previous studies (e.g., Hurlock & Burstein, 1932; Jersild et al., 1933; Manosevitz et al., 1973; Mauro, 1991; D. G. Singer & Singer, 1990). There were no sex differences in the identities of the imaginary companions (i.e., person or animal; see Table 2). Both sexes had more person than animal imaginary companions, and this difference was significant among girls, $X^2(1, N = 26) = 5.54, p < .025$. One girl reported having both person and animal imaginary companions, and two boys described a ghost and robot/space creature. These data do not support previous findings that boys tended to have animal imaginary companions whereas girls tended to have person imaginary companions (Ames & Learned, 1946; Jersild, 1968; Mauro, 1991; D. G. Singer & Singer, 1990). In addition, the overrepresentation of girls in the imaginary companion group was not due to the inclusion of some dolls and stuffed animals. The proportion of toys that qualified as imaginary companions was actually *higher* among boys than girls (see Table 2), $X^2(1, N = 42) = 5.08, p < .025$. The ages of the imaginary companions relative to the child did not differ between boys and girls, nor did other physical characteristics of imaginary companions.

Competence. We asked children several structured questions about their primary imaginary companions, including the identity and physical characteristics, where they lived and slept, and what the child liked and disliked about the pretend friend.⁴ Our open-ended question format allowed children to divulge idiosyncratic information about their imaginary companions that enabled us to infer how “competent” they were in the eyes of the child. Two independent coders rated the primary imaginary companions described by the children according to one of the following three categories:

1. *Competent:* powerful, special abilities, cognitive, physical, or social strengths; an older or bigger person who holds authority, has freedoms; a toy or animal with some superior abilities; someone a typical 3- or 4-year-old child would want to be like
2. *Incompetent:* powerless, needs assistance; cognitive, physical, or social weaknesses; a younger or smaller person who does not have authority or freedoms; a toy or animal with inferior abilities; someone a typical 3- or 4-year-old child would not want to be like
3. *Neutral:* described as being very similar to the child (e.g., age, sex, size, appearance, likes and dislikes); about the same abilities as a typical 3- or 4-year-old child; no information regarding competence in either direction or contradictory information

Coding was reliable, Cohen's $\kappa = .76$. Disagreements were resolved by discussion. According to our coding system, 40% of the imaginary companions were classified as neutral (e.g., “Sisters,” who “play checkers” and are “just like me”), 36% as competent (e.g., “Station Pheta,” whose job is to “hunt dinosaurs at the beach”), and 24% as incompetent (e.g., “Emily,” who is “squeezed a lot” and “kind of cries when I hold her”). The proportion of imaginary companions in these three groups as a function of sex is shown in Table 3. The competence ratings of imaginary companions did not differ significantly between boys and girls, $X^2(2, N = 42) = 1.22, p > .10$. Examining each sex separately, there were no significant differences in the distribution of competent, incompetent, and neutral imaginary companions.

⁴ Children usually mentioned one primary imaginary companion. If several imaginary companions were listed, the interviewer asked children which one (or collection, e.g., “The Girls”) they would like to tell about.

Table 3. Percent of Competent, Incompetent, and Neutral Imaginary Companions and Impersonated Characters

	Girls	Boys
Imaginary companions		
Competent	30 (8)	47 (7)
Incompetent	26 (7)	20 (3)
Neutral	44 (12)	33 (5)
Impersonated characters		
Competent	38 (3)	60 (9)
Incompetent	25 (2)	7 (1)
Neutral	38 (3)	33 (5)

Note: Ns are shown in parentheses.

Impersonated Characters

Incidence. Most of the children in our sample reported they pretended to be animals (80% of boys, 86% of girls), people (76% of boys, 79% of girls), and objects/machines (72% of boys, 64% of girls). Therefore, we relied on parent report to determine the extent of the impersonation activity. Children were categorized as high in impersonation if their parents reported the child pretended to be someone else (a certain person or animal or class of characters, e.g., “Power Rangers”) every day for at least one month, currently or in the recent past. Our aim was to be similarly conservative in categorizing children as frequent impersonators as we had been for the imaginary companion assessment. Twenty-nine (19%) of the 152 subjects met these criteria. Of these children, 19 (66%) were male and 10 (34%) were female, $X^2(1, N = 29) = 3.75, p < .10$. Excluding the children who also qualified as having an imaginary companion (6 boys and 6 girls), we were left with 17 impersonation-only children: 13 boys (76.5%) and 4 girls (23.5%), $X^2(1, N = 17) = 4.55, p < .05$. Table 1 summarizes the proportion of girls and boys who had imaginary companions, impersonated, and overlapped these two categories. Among girls, imaginary companions were significantly more frequent than impersonation or both, $X^2(2, N = 31) = 16.71, p < .01$. A parallel analysis was nonsignificant among boys. In a direct comparison, however, we found girls were more likely to have imaginary companions than boys, whereas boys were more likely than girls to impersonate, $X^2(2, N = 59) = 9.44, p < .01$.

Identity. According to parent report, both sexes impersonated people about twice as often as animals (68% versus 21% for boys, 60%

versus 30% for girls). (One girl and two boys reportedly pretended to be both a person and animal every day.) Nevertheless, the *types* of people impersonated were related to sex. We examined whether each impersonated character was based on a real person; a media figure from television, movies, or books; or someone invented in the child's imagination. The majority (75%) of characters impersonated by girls were based on real people (e.g., mommy, sister, cousin, teacher), whereas the majority (78%) of characters impersonated by boys derived from media images (e.g., Superman, Peter Pan, Mumford the Magician), $X^2(2, N = 17) = 12.77, p < .01$. Two boys—but no girls—impersonated characters that had no apparent objective basis (“Mr. Electricity” and “Flashman of the World”). None of the children in our study impersonated a machine or object every day, but parents reported at least some impersonation of objects (e.g., a vacuum cleaner) for boys (48%), significantly more often than for girls (30%), $X^2(1, N = 152) = 4.52, p < .05$.

Competence. The preceding analyses helped to establish that sex is related to the kind of fantasy characters children create. To explore whether there were differences in the competence of characters impersonated frequently by boys and girls, for the next set of analyses two independent coders rated each of the impersonated characters as competent, incompetent, or neutral based on the same criteria as the imaginary companion ratings. The same 29 children categorized as frequent impersonators according to parent report were included in this analysis, but to more closely match the procedure used to determine the competence of imaginary companions, we used the characters mentioned by the children themselves in response to impersonation questions. (Six subjects were excluded from subsequent analyses because four boys and two girls did not provide examples of what they pretended to be.) We examined the competence of the primary characters mentioned by the children and found that 52% of the characters were classified as competent (e.g., “Luke Skywalker,” “ballerina”), 13% as incompetent (e.g., “baby,” “kitten”), and 35% as neutral (e.g., “cousin,” “rabbit”). Coding was reliable, Cohen's $\kappa = .93$. Table 3 shows the proportion of boys' and girls' characters in each of these groups. Among boys, competent characters were significantly more frequent than incompetent or neutral ones, $X^2(2, N = 15) = 6.4, p < .05$. A parallel analysis was nonsignificant for girls; competence ratings of their impersonated characters were evenly distributed across the three categories. A between-sex analysis of the competence of impersonated characters was nonsignificant, $X^2(2, N = 23) = 1.88, p > .10$.

Finally, to explore how sex and the competence of the fantasy figure were contributing to the type of character children created, we conducted two hierarchical multiple regression analyses in which these variables were pitted against one another. For these analyses we excluded the 12 children who had both imaginary companions and impersonated characters. In the first regression, we entered sex first, and this was a significant predictor of character type, $\beta = .35$, $t(47) = 2.67$, $p = .01$. We next entered competence, which was nonsignificant, $\beta = .13$. In the second regression analysis, the order of entry was reversed. Although there was a higher proportion of competent characters in the impersonation category than the imaginary companion category (52% and 33%, respectively), competence alone did not significantly predict character type, $\beta = .14$. When sex was added to the equation, it was significant after controlling for competence, $\beta = .32$, $t(47) = 2.34$, $p < .025$. The omnibus solution was significant, $F(2, 47) = 4.05$, $p < .025$, and accounted for 14% of the variance.⁵ This analysis suggested that sex of the child was a more potent factor than competence of the characters in determining the way children's fantasy figures were manifested. Furthermore, collapsing across the type of imagined character (again excluding the overlaps), there was no significant difference in the level of competence of boys' and girls' characters, $X^2(2, N = 47) = 3.49$, $p > .10$.

Other Measures of Pretense

The results for each of the additional measures of pretense and fantasy are shown in Table 4. Boys and girls did not differ significantly on most of these items. They included Singer's Imaginative Play Predisposition Interview; favorite television show, toy, and story; and free play with hats. The only measures in which we found a sex difference involved sex-typed toy preferences. Girls had a stronger preference for the fantasy toy selections, $t(149) = 4.99$, $p < .01$. Boys demonstrated more elaborate fantasy than girls during play with blocks, $t(150) = 2.12$, $p < .05$.

Consistent with these findings for the child measures, in t -tests of rank order preference, parents of girls reported their child had a significantly higher preference for traditionally feminine toys, including puzzles, stuffed animals, dolls, art materials, dress-up ($ps < .01$), and board games ($p < .05$), than did the parents of boys. Conversely, boys' parents said their child preferred traditionally masculine toys, including

⁵ Sex added 9% of explained variance over and above competence.

Table 4. Performance on the Additional Pretense Measures

	Girls (<i>N</i> = 77)	Boys (<i>N</i> = 75)
Favorite game (fantasy)	39%	34%
Play alone (fantasy)	41%	33%
Pictures in head (yes)	48%	54%
Talk to self in bed (yes)	64%	67%
Think before sleep (fantasy)	35%	45%
Favorite toy (fantasy)	71%	77%
Favorite TV show (fantasy)	85%	93%
Favorite story (fantasy)	85%	77%
Toy preference (<i>M</i> # fantasy choices)	2.05 (1.09)	1.24 (.89)***
Pretend actions	1.26 (1.65)	1.51 (1.84)
Block play fantasy	1.97 (.78)	2.23 (.69)*
Hat play fantasy	2.31 (.59)	2.31 (.62)

* $p < .05$; *** $p < .001$

action figures, cars, blocks, and video games, significantly more frequently than did girls' parents ($ps < .01$). Parent report also indicated that the proportion of girls and boys who had transitional objects (e.g., a treasured blanket) that are sometimes an impetus for creating imaginary companions did not differ significantly (61% of girls, 56% of boys). They also did not differ on the amount of time spent alone (average of 1–2 hours per day for both sexes) or with other children (average of 3 hours per day for both sexes) or in the amount of time they watched television (average of 1–2 hours per day for both sexes). Taken together with the fact that children had equal numbers of siblings and day-care experiences, these results indicate that although boys and girls appeared to have “equal opportunity” for creating imaginary companions or impersonating characters, they expressed differences in the preferred form of role play.

Discussion

The main purpose of our study was to examine sex differences in the incidence of imaginary companions and impersonated characters in preschool children. Our results replicate numerous studies finding that girls are more likely to have imaginary companions than boys (e.g., Hurlock & Burstein, 1932; Jersild et al., 1933; Mauro, 1991; Svendsen,

1934). They also extend our understanding of early fantasy play, showing that boys' role play often takes a different form than that of girls. To summarize, within-sex analyses revealed a significant predilection for imaginary companions among girls but no significant differences in the form of boys' imagined characters (imaginary companion, impersonation, or both). Between-sex comparisons, however, revealed that girls were more likely than boys to have imaginary companions, whereas boys were more likely than girls to impersonate characters. Furthermore, there was a significant sex difference in the form of imaginary companions, in which girls' companions were more often invisible and boys' were more often based on toys. Consistent with previous research on sex differences in play (e.g., Fagot & Leinbach, 1993), both males and females tended to create same-sex imaginary characters, but girls exhibited more cross-over than boys. There is also wide support in the literature on sociodramatic play for the finding that boys' impersonated characters are more likely to be fictional than girls' characters (Rubin et al., 1983). Unlike earlier research on this topic, however, there was no sex difference in the creation of person versus animal imaginary companions (e.g., D. G. Singer & Singer, 1990). Importantly, these results were not due to sex differences in age, verbal ability, number of siblings, or time spent playing alone, all of which were associated in previous research with having an imaginary companion (e.g., Gleason et al., 2000; D. G. Singer & Singer, 1990; Taylor & Carlson, 1997). There was also no difference in girls' and boys' general proclivity for fantasy on our measures, or in their developmental level of pretense assessed with the pretend action tasks. The significant differences on fantasy gift choices (favoring girls) and block play (favoring boys) most likely reflect sex-typed toy preferences that have been well documented in other studies (e.g., Caldera et al., 1989).

This research suggests there are very few differences in the fantasy *predisposition* of girls and boys. Rather, fantasy-orientation with respect to the creation of imaginary characters is *expressed* differently in the preschool period, with girls more likely than boys to have imaginary companions and boys more likely than girls to impersonate. Ames and Learned (1946) speculated this might be the case in a footnote: "Earlier findings that more girls than boys experience these phenomena are not entirely accurate if the different types of imaginative behavior are considered separately" (p. 151). To date no other published studies have established this finding.

A second purpose of our research was to begin to explore the mechanisms underlying the sex difference. We selected competence of

the imagined character as a potentially important factor because the content of preschool children's play themes often involves superhero adventures for boys and domestic themes for girls (Rubin et al., 1983; D. G. Singer & Singer, 1990). In addition, past research on this topic suggested that the imaginary companions of boys and girls differ with respect to physical, cognitive, and social competence (Harter & Chao, 1992). According to Harter and Chao (1992), feelings of mastery might be achieved either by creating an imaginary companion that is much more helpless than the self, thus making the self appear more competent in comparison, or by creating one that is extremely competent, perhaps as an ego ideal with whom to identify. If this interpretation is correct, then the type of characters created by boys are the sort of characters it would be interesting to act out oneself, that is, individuals who have special powers and are particularly competent (i.e., impersonation). In contrast, if girls help and nurture their imaginary characters, they would tend to imagine the character as a separate entity, perhaps with its own autonomous psychological existence (i.e., an imaginary companion). Gottman (1986) made a similar distinction in his analysis of sex differences in the way children cope with fear through fantasy play. Specifically, girls more often attempt to overcome fears by projecting feelings of fear onto someone else (like a doll) who, in turn, needs to be comforted. Boys, on the other hand, tend to use a strategy of mastery in which they pretend to be the thing they are afraid of or pretend to conquer it. Our results with respect to sex differences in the *incidence* of impersonation and imaginary companions in the preschool period are consistent with this interpretation.

It is important to note, however, that we found no significant sex differences in children's creation of incompetent, neutral, and competent imaginary companions or impersonated characters. Furthermore, when pitted against competence, sex was a more powerful predictor of character type. In other words, boys were more likely than girls to impersonate their fantasy characters, and girls were more likely than boys to create imaginary companions; this held true regardless of the competence level of the character. On the other hand, when boys impersonated *people*, they were significantly more likely than girls to act out supernatural beings based on media figures. Within-sex analyses showed that boys—but not girls—impersonated highly competent characters more frequently than incompetent or neutral ones. These results are compatible with Harter and Chao's (1992) general interpretation of fantasy play fulfilling different needs for males and females.

Future Directions

It is important not to lose sight of the fact that, by and large, boys and girls were more similar than different on most measures of pretend play. The intriguing difference we observed pertained to the form—and not the frequency—of fantasy role play. Furthermore, our findings are restricted to the upper 40% of the sample who reported intensive absorption in role play. Taylor (1999) has referred to these children as “big-time pretenders.” Because it is possible that the sex differences we observed are limited to these especially high-fantasy children, we take caution in generalizing our findings to all preschoolers in the absence of further research. Nevertheless, despite using relatively stringent criteria for categorizing children as having imaginary companions or as impersonators, we found that a sizable minority of preschoolers engaged in these activities extensively. Moreover, the form it took was reliably related to sex, even though the girls and boys in our sample appeared to have equal social opportunity for the different types of role play outlined by Harris (2000).

In this study, sex differences in the competence of the imagined characters did not account for sex differences in the form they took (imaginary companion or impersonated). In addition, our results did not replicate the sex difference that Harter and Chao (1992) found in the competence levels of imaginary companions. However, our procedure differed from theirs in a number of ways. First, to keep the session length manageable for preschool-age children, we did not assess children’s *own* sense of self-competence. Harter and Chao’s assessment of competence included 56 questions specifically about three types of competence. Although we obtained enough information from children’s descriptions to reliably judge the level of competence of the characters inhabiting their fantasy lives, we did not assess competence directly in the same way. Moreover, unlike Harter and Chao’s sample, our subjects were not pre-selected for having an imaginary companion and, given that the primary goal of our study was to provide incidence data, we also did not have equal numbers of males and females in the imaginary companion group. Some children had multiple imagined characters, but we collected detailed information about only the primary ones. A further limitation is that we obtained fewer details about the impersonated characters than the imaginary companions that children reported.

Competence was also assessed in a study by Gleason et al. (2000) in which mothers were asked to describe the nature of the relationship between children and their imaginary companions. They found the invisible imaginary companions were more like real friends (and had a

“horizontal” status with the child), whereas personified toys more often received comforting and guidance (a “vertical” relationship). Our sample of children with imaginary companions of each type was too small to examine this issue as a function of sex, but this would be a possible direction of future research. More behavioral measures are needed as well, such as tasks in which children are given the opportunity to either “create” an imaginary character or “become” one in a lab setting. For example, are boys more likely to act out a role than girls, but only if it is a powerful figure? In going beyond the laboratory, peer play observation and teacher reports would be useful to learn whether sex differences in role play are amplified or minimized in a group setting. As Maccoby (2002) suggested, dynamic properties of groups (especially same-sex groupings) emerge in play that are distinct from characteristics of their individual members.

Although it is beyond the scope of the present investigation, longitudinal research will enable investigators to trace the development of fantasy play beyond the preschool years. We are still left with the question of whether the sex difference in role play evens out by middle childhood. Hutt and Bhavnani (1972) and D. G. Singer and Singer (1990) suggested that, at 4 years, girls are more linguistically and socially competent than boys, and thus their fantasy play might be more symbolic and covert. It is possible that as boys’ development in other areas catches up, sex differences in fantasy would diminish. Alternatively, other assessments of elaborate fantasy play in older children might reveal continued sex differences. For example, one manifestation of elaborate fantasy in children age 9 to 13 is the imaginary world, or “paracosm.” Imaginary worlds can have a variety of geographical characteristics, inhabitants, languages, and social orders. Although little research has been done on this topic, Silvey and MacKeith (1988) reported sex differences in the content of paracosms: the worlds created by boys were naturalistic, realistic, and impersonal, whereas those created by girls involved more personal interaction and the self as a primary character. Moreover, it will be important in future research to learn what these early differences predict in terms of personality, social competence, coping and adjustment, and real-life sex roles.

Finally, parents played an integral part in our classification of children’s fantasy play styles. We found that most parents were willing to discuss their child’s imaginative behaviors in a positive light. However, we do not know the extent to which parental attitudes and beliefs about fantasy might have influenced their responses, as well as children’s performance on our measures. One factor to consider is the

extent to which parents' roles and attitudes are traditional. Children of parents who respond to sex-role questionnaires in traditional ways, for example, tend to choose more stereotypical sex-linked toys (Repetti, 1984). Furthermore, pretend play themes can vary as a function of cultural background (e.g., Carlson, Taylor, & Levin, 1998; Farver & Shin, 1997). In different cultures, imaginary companions and impersonation, as well as the extent to which these activities are viewed as more or less appropriate for males and females, may be viewed very differently (Taylor & Carlson, 2000). These issues raise a number of directions for future research. However, the results presented here suggest that it is crucial to assess the form and function of children's pretend play as well as its frequency.

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