

Development of Story Characters in Gender-Stereotypic and -Nonstereotypic Occupational Roles

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This research examined the creative writing responses of 140 third- and sixth-grade boy and girl writers to story characters cast in either stereotypic (male mechanic and female nurse) or nonstereotypic (female mechanic and male nurse) occupational roles. The 560 stories were examined for maintenance of character in assigned occupational role, development of character along gender-stereotypic and -nonstereotypic lines, and evidence of gender change in the lead character. Results suggested that development of character was consistent with gender expectations for the lead character in the stereotypic stories and in the nonstereotypic female mechanic story. For the nonstereotypic male nurse story, the development of character was consistent with the author's gender. Further evidence of stereotypic thinking occurred in those nonstereotypic stories where the lead character's gender was changed to be consistent with the stereotype of the occupational role. These findings support previous research on gender differences and gender perceptions.

Numerous research studies have provided insights into the gender differences and gender stereotyping in children as seen in their play behavior, activity preferences, and toy selection (Buss, Block, & Block, 1980; Carpenter & Huston-Stein, 1980; Fagot & Littman, 1975; Fein, Johnson, Kosson, Stork, & Wasserman, 1975; Goldberg & Lewis, 1969; Honig & Wittmer, 1982). These studies have shown that children tend to act and make choices based on gender stereotype.

Further evidence of gender differences and stereotyping can be seen in children's creative writing. In previous research, conducted by Trepanier-

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Street and Romatowski (Romatowski & Trepanier-Street, 1987; Trepanier & Romatowski, 1985; Trepanier-Street & Romatowski, 1986a, 1986b) the creative writing of elementary school students was examined for gender stereotyping. The stories used in the research were written by students in their classrooms and represented their independent efforts; that is, the story line, characters, and actions were not predetermined by the classroom teachers or the researchers. Research results revealed a strong male predominance and considerable gender stereotyping. Boys at all grade levels and girls in grades 1 through 4 included significantly more male characters than female characters in their stories. These male characters were assigned more physical actions, emotions, physical and ability attributes, problem-solver roles, and occupational roles. Girls in the fifth and sixth grades also included more male characters and assigned these male characters more occupational roles. There was, however, a significant finding regarding developmental differences. Fifth- and sixth-grade girls assigned more emotions, actions, and attributes to female characters. This level of attention to female characters was seen only in this age group of female authors.

The current study investigated the creative writing of third- and sixth-grade students to determine the prevalence of stereotypic thinking when confronted with a structured writing situation containing gender-discrepant information. In this study, students wrote responses to four story starters: two identical story starters about a mechanic, one with a male mechanic and the other with a female mechanic; and two identical story starters about a nurse, one with a female nurse and the other with a male nurse. Third- and sixth-grade students were selected for the current study because findings from previous research (Romatowski & Trepanier-Street, 1987; Trepanier & Romatowski, 1985; Trepanier-Street & Romatowski, 1986a, 1986b) suggested possible developmental differences at these ages.

The current study differed from past research in several aspects. Unlike the past research, the stories written for this study derived from predetermined story starters where the issue of gender stereotyping was highlighted. By casting male and female characters in stereotypic and nonstereotypic roles, students were confronted with the stereotyping issue directly. They were asked to continue the story but were free to maintain or not maintain the character in the established role. A second important aspect of this study required the students to deal with prescribed male and female lead characters. This was a challenge. In the previous research, female characters were largely ignored for inclusion and development in a story and when included, they were restricted to a very limited number of occupational roles. Requiring subjects to respond to a story starter featuring a female character in a stereotypic and nonstereotypic occupational role allowed for more insightful

analysis of the students' treatment of female characters. Another important difference in the design of this study was its use of gender-stereotypic and -nonstereotypic stimuli and tasks. In other studies using these stimuli (Cordua, McGraw, & Drabman, 1979; Liben & Signorella, 1980; Martin & Halverson, 1983; Trepanier-Street & Kropp, 1986), the tasks required either immediate or delayed memory of information. When the memory tasks involved the use of stories, these were written by adults (Jennings, 1975; Koblinsky, Cruse, & Sugawara, 1978). This study, by contrast, used a creative writing task where subjects wrote their own stories in response to prepared, brief story starters. This generated a rich data source inasmuch as creative writing is a medium for self-expression and therefore reflects perceptions and thinking. Finally, the structured design of this study permitted various comparisons. These included a comparison of (a) stereotypic and non-stereotypic characters, (b) male and female characters, (c) male and female characters in the same occupational role, (d) boy writers and girl writers, and (e) third- and sixth-grade subjects.

This study investigated several questions:

1. When given a male or female character in a stereotypic occupational role, do writers maintain the character in the assigned occupation role?
2. When given a male or female character in a nonstereotypic occupational role, do writers maintain the character in the assigned role?
3. Regardless of whether or not the lead character is maintained in the assigned occupational role, do writers develop the lead character according to gender-stereotypic or -nonstereotypic expectations?
4. Are there differences in the stories written by third- and sixth-grade writers, and are these differences related to author's gender and/or age?

METHOD

Subjects

The 560 stories examined in this study were written by 140 student writers: 70 third graders (35 boys and 35 girls, each approximately 8 years of age) and 70 sixth graders (35 boys and 35 girls, each approximately 12 years of age). Subjects were drawn from three schools located in a suburb outside a large metropolitan city. Socioeconomic status ranged from low-middle to middle (median household income, \$19,909) with a 3.1% non-White racial/ethnic mix. Parental consent for participation in the research

was received for all participants as required by university policy regarding the use of human subjects.

Procedure

Four writing sessions were conducted by one of the researchers in a group setting in the subjects' regular classrooms. Boys and girls wrote one story per session—two stories per week—over a 2-week period. The story starters were arranged in eight different presentation orders with the only condition being that an occupational role could not succeed itself. These eight orders were randomly assigned to the subjects. The first story for any subject could be either a nurse or a mechanic story and could be either a male or a female lead character. The following four story starters were used:

Story Starters 1 and 2: Jim Hall (or Ann Parks), a mechanic, was fixing cars at work. There was a loud crash. Jim (or Ann) looked up and . . .

Story Starters 3 and 4: Mary Smith (or Bill Jones), a nurse, was working in the hospital. All of a sudden everything began to shake. It was an earthquake. Mary (or Bill) ran to . . .

Subjects were directed to read the story starter silently and to complete the story. Students were given approximately 30 minutes to complete the writing, and the only assistance given by the researchers was the spelling of a word when requested. There were no further directions provided or restrictions imposed on completing the story. Thus subjects were free to maintain or not maintain the character in role, to develop the character along gender-stereotypic or -nonstereotypic lines, or to ignore the lead character as well as the story line and introduce characters and story lines of their own.

Instrumentation

The occupations selected for this research were carefully chosen on the basis of a pilot study. In the pilot study, 80 third- and sixth-grade subjects ($n = 20$ each of third-grade boys, third-grade girls, sixth-grade boys, and sixth-grade girls) were asked to make judgments about the gender appropriateness of 20 different occupations. Occupations were drawn from labor statistics (U.S. Bureau of Labor Statistics, 1985) regarding the number of men and women employed in various fields. All occupations selected for inclusion employed predominantly (85% or more) males or females and were familiar to third- and sixth-grade students.

In the pilot study, subjects were given a written list of the different occupations. The researcher read each occupation and subjects were asked to mark whether the occupation was "for men," "for women," or "for both men and women." Following the initial judgment, subjects rejudged those occupations previously marked as "for both men and women." In the second judging, subjects marked the occupation as "mostly for men" or "mostly for women." From the analysis of the pilot study results, the two occupations of nurse and mechanic were chosen. These occupations were clearly seen by subjects as predominantly either a male occupation (mechanic) or a female occupation (nurse). Following the pilot study, the previously cited four story starters were composed. These were written for easy readability and were then pretested with both third and sixth graders.

Design and Analysis

This study was descriptive and qualitative in nature, rather than experimental. This design was chosen because of the lack of prior research from which directional hypotheses could be tested and instruments gleaned. The development of multidimensional scales and the use of inferential statistics, such as log-linear analysis, was premature. The data generated from this study were frequency counts deriving from exclusive categories (e.g., maintaining or not maintaining a character in role). Consequently, the chi-square technique was chosen to analyze the data. A problem in the application of the chi-square technique was the repeated measures design of the study, that is, having all subjects write responses to all four stories violated the assumption of independence. Recognizing this problem and attempting to minimize the effect of dependence, stories were initially analyzed separately. An omnibus chi-square was conducted for each of the four stories. In addition, when two stories were included in the analysis, a rigorous probability level was required for significance. To avoid a Type I error, only those values with a probability exceeding the .001 level were considered significant. In fact, analyses yielded large chi-squares exceeding the .001 probability level.

Scoring

The 560 stories were scored by all three researchers for (a) frequencies of characters who were maintained or not maintained in their occupational role, (b) development of character along gender-stereotypic and -nonstereotypic expectations, and (c) changes in the lead character's gender. To achieve a high degree of interrater reliability among the researchers, the following steps were taken:

1. A pilot group of children's stories was read and scored independently by the three researchers.
2. Scoring of the pilot stories was compared. Discussion led to some revisions of the scoring protocol and clearer definitions of the scoring categories.
3. A sample of the 560 stories used in the study was read and scored by all three researchers. Interrater reliability was established across all categories and ranged from 85% to 95% agreement.
4. The three researchers then read and scored all 560 stories. Scoring was compared and the few disagreements that occurred were resolved by consensus.

Each story was examined for whether or not the lead character remained or did not remain in the assigned occupational role of mechanic or nurse. Characters were judged as remaining in role if the story continued in the context of the hospital or mechanic's shop and if the character performed activities typically assigned to a mechanic or a nurse (e.g., fixing cars and administering to the needs of patients).

Regardless of whether the character was maintained or not in the assigned occupational role, children's stories were next examined for gender-stereotypic or -nonstereotypic character development. Each story was analyzed to determine whether the character acted in a manner consistent with his or her gender (stereotypic), consistent with the opposite gender (nonstereotypic), or consistent with either gender (neutral). Male characters were judged as stereotypic if they were highly active, physical, heroic, adventuresome, independent, competent as mechanics, or incompetent as nurses. Some examples of male stereotypic behavior were physically rescuing the patients in the hospital or persons in a car crash in spite of danger to self, fixing the cars in the shop, escaping from dangerous aliens that arrived during the earthquake, and capturing the burglar who intruded on the mechanic in the garage. Females were judged as stereotypic if they were passive, verbal, victimized, dependent, nurturant, social, competent as nurses, or incompetent as mechanics. Examples of female stereotypic behavior were getting injured and needing rescue, hiding during the earthquake, talking about events, going home to take care of children, and going shopping. Characters were judged as neutral when their actions were compatible for both genders (eating or sleeping) or when characters were not developed enough for a stereotypic or nonstereotypic judgment to be made. Judgments about whether the author developed the lead character in a stereotypic, nonstereotypic, or neutral manner were made at two points: early in the continuation of the story starter and at the end of the story.

Finally, stories were examined for evidence of change in the gender of the lead character. This change was most often signaled by the use of a pronoun inconsistent with the gender of the lead character.

RESULTS

Maintenance of Character in Occupational Role

The frequency and percentage of characters remaining and not remaining in role by story can be seen in Table 1. Omnibus chi-square analyses on these frequencies were conducted for each of the stories to determine if there was a relationship among the variables, that is, gender of the author, the grade of the author, and the frequency of characters in role or not in role. For each significant relationship, cells were further examined by computing the standardized residual. The standardized residual is similar to a z score with a mean of zero and a standard deviation of 1 (Everitt, 1977).

The omnibus chi-squares for the male and female mechanic stories (Stories 1 and 2) did not suggest a significant relationship among the variables. These results suggested that when given the male and female mechanic stories, the distribution of character in role or not in role was equivalent for boys and girls. These results did not suggest, however, that the male mechanic and the female mechanic were handled in an equivalent manner. After eliminating the neutral category, both boys and girls kept the male mechanic in role more frequently (51%) than the female mechanic (26%). Maintaining the female character in an assigned nonstereotypic occupational role appeared to be difficult.

For the female nurse and male nurse stories (Stories 3 and 4), there was a significant relationship among the author's gender, grade, and character in role/not in role, $\chi^2(4, N = 140) = 15.02, p < .001$ for the female nurse story and $\chi^2(4, N = 140) = 24.524, p < .001$ for the male nurse story. Further analysis suggested that grade was independent. Significance can be attributed to the relationship between the author's gender and the maintenance of the character in role/not in role, $\chi^2(1, N = 140) = 13.87, p < .001$ for the female nurse story and $\chi^2(1, N = 140) = 14.405, p < .001$ for the male nurse story. In the nurse stories, girl authors kept both the male and the female character in role significantly more frequently than did boy authors (Story 3, $r = 3.72, p < .001$; Story 4, $r = 3.79, p < .001$). It appeared that the author's gender was a key factor in the maintenance of the nurse character in role.

To assess the issue of occupational stereotype, two chi-square analyses were conducted: one which included the two stereotypic stories and one

TABLE 1: Frequency of Subjects Who Kept Lead Character in Occupational Role

Authors	Story 1		Story 2		Story 3		Story 4	
	Male Mechanic		Female Mechanic		Female Nurse		Male Nurse	
	In Role (%)	Not in Role (%)	In Role (%)	Not in Role (%)	In Role (%)	Not in Role (%)	In Role (%)	Not in Role (%)
Grade 3								
Boys	25 (71)	10 (29)	8 (23)	27 (77)	12 (34)	23 (66)	8 (23)	27 (77)
Girls	16 (46)	19 (54)	10 (29)	25 (71)	20 (57)	15 (43)	13 (37)	22 (63)
Grade 6								
Boys	14 (40)	21 (60)	8 (23)	27 (77)	10 (29)	25 (71)	9 (26)	26 (74)
Girls	16 (46)	19 (54)	11 (31)	24 (69)	24 (69)	11 (31)	26 (74)	9 (26)
Totals	71 (51)	69 (49)	37 (26)	103 (74)	66 (47)	74 (53)	56 (40)	84 (60)

which included the two nonstereotypic stories. Maintenance of character in occupational role for the two stereotypic stories was equivalent and, consequently, the chi-square for the two stereotypic stories was not significant. This finding corroborated the findings from the pilot study in which the occupations of nurse and mechanic were seen as equivalently gender-stereotypic. However, the chi-square for the two nonstereotypic stories was significant, $\chi^2(10, N = 280) = 25.516, p < .001$. Grade was independent, but the relationship between author's gender and character in role/not in role was significant, $\chi^2(3, N = 280) = 15.323, p < .001$. Whereas differences between authors were not apparent for the female mechanic, they were apparent for the male nurse. Both boys (77%) and girls (70%) took the female mechanic out of role. However, the male nurse was kept in role significantly more frequently by girls than by boys ($r = 3.28, p < .001$). In summary, there was no significant relationship for the stereotypic occupation stories, but there was a significant relationship for the nonstereotypic occupation stories.

To determine whether the character's gender was an important factor in maintaining the character in the assigned occupational role, comparisons were made between the two male stories and between the two female stories. The omnibus chi-square for the two female character stories was not significant. For the two male stories, a significant relationship was found, $\chi^2(10, N = 280) = 32.840, p < .001$. Further analysis suggested that gender, grade, and maintenance of character in role were interdependent. Cell chi-squares indicated that third-grade boys kept the male mechanic significantly more frequently in role ($r = 3.98, p < .001$) but took the male nurse significantly more frequently out of role ($r = 3.12, p < .001$). The stereotype of the occupational role appeared to make the difference. Sixth-grade boys took both the male mechanic and the male nurse significantly more frequently out of role ($r = 2.08, p < .05$, and $r = 2.6, p < .05$, respectively). For third- and sixth-grade girls, maintaining the male mechanic in or out of role was equivalent. Given the male nurse, third-grade girls tended to take the male nurse out of role, whereas sixth-grade girls kept the male nurse significantly more frequently in role ($r = 7.17, p < .001$).

Stereotypic or Nonstereotypic Development of Lead Character

Occupational roles aside, the frequencies of lead characters developed along stereotypic and nonstereotypic lines were examined. Inasmuch as the frequencies and chi-square analyses on story continuation and ending data were equivalent, only the frequencies and chi-squares for the continuation data are reported. These frequencies and corresponding percentages are shown in Table 2.

TABLE 2: Frequency of Characters as Stereotypic or Nonstereotypic in Continuation of Story

Authors	Story 1 Male Mechanic		Story 2 Female Mechanic		Story 3 Female Nurse		Story 4 Male Nurse	
	ST (%)	NST (%)	ST (%)	NST (%)	ST (%)	NST (%)	ST (%)	NST (%)
Grade 3								
Boys	32 (91)	0 (0)	20 (57)	11 (34)	33 (94)	1 (3)	18 (51)	14 (40)
Girls	25 (71)	6 (17)	25 (71)	8 (23)	32 (91)	1 (3)	10 (29)	21 (60)
Grade 6								
Boys	33 (94)	0 (0)	22 (63)	13 (37)	25 (71)	9 (26)	26 (74)	5 (14)
Girls	18 (51)	14 (40)	26 (74)	9 (26)	33 (94)	2 (6)	12 (34)	21 (60)
Totals	108 (77)	20 (14)	93 (66)	41 (29)	123 (88)	13 (9)	66 (47)	61 (44)

NOTE: Neutral category is not reported. Percentages do not always total 100. ST = stereotypic; NST = nonstereotypic.

For this research, only the frequencies for stereotypic and nonstereotypic characters (no neutrals) were analyzed. An omnibus chi-square investigating the relationship among the variables of author's gender, grade, and stereotypic or nonstereotypic character development was conducted for each of the four stories. Except for the female mechanic, all were significant at the .001 level. Significant omnibus chi-squares were found for the male mechanic, $\chi^2(4, N = 140) = 31.568, p < .001$; female nurse, $\chi^2(4, N = 140) = 15.072, p < .001$; and male nurse, $\chi^2(4, N = 140) = 20.658, p < .001$.

For the female mechanic story, there was no difference between boy and girl authors. Both tended to make the female character stereotypically feminine (60% boys, 73% girls). For the male mechanic story, further analysis of the significant relationship suggested that grade was independent of author's gender and character development. A subsequent chi-square examining the relationship between the latter two variables was significant, $\chi^2(1, N = 140) = 24.456, p < .001$. For the male mechanic story, boys depicted the male character as stereotypic significantly more frequently than did girls ($r = 4.94, p < .001$).

For the female nurse story, boys and girls across both grades depicted the female nurse as stereotypically feminine (83% boys, 93% girls). When the female nurse was depicted as nonstereotypic (i.e., stereotypically masculine), this occurred significantly more frequently with sixth-grade boys ($r = 6.65, p < .001$). Although boys and girls were similar in their depiction of the female nurse, they differed in their depiction of the male nurse. Analysis of the male nurse story suggested that grade was independent but that gender of the author and character development were significantly related, $\chi^2(1, N = 140) = 15.998, p < .001$. Boys made the male nurse act stereotypically masculine ($r = 3.99, p < .001$), and girls made the male nurse act stereotypically feminine ($r = 3.99, p < .001$).

To assess occupational stereotype, two omnibus chi-square analyses were conducted: one comparing the two stereotypic stories and another comparing the two nonstereotypic stories. The analysis of the two stereotypic stories yielded a significant relationship among author's gender, grade, and character development, $\chi^2(10, N = 264) = 46.52, p < .001$. Subsequent analyses suggested that grade was independent but that author's gender and stereotypic and nonstereotypic character development were related, $\chi^2(3, N = 264) = 27.942, p < .001$. Both boys and girls tended to make the male mechanic and the female nurse characters consistent with the occupational stereotype (93% boys, 61% girls for the male mechanic; 83% boys, 93% girls for the female nurse).

Although not at the .001 level of significance, interesting results can be seen in the nonstereotypic stories (female mechanic and male nurse). For the

nonstereotypic stories, the variables of author's gender, grade, and character development were significant at the $p < .01$ level, $\chi^2(10, N = 261) = 22.693$. Additional analyses found grade to be independent but author's gender and character development significantly related, $\chi^2(3, N = 261) = 18.039, p < .001$. Evidence for this relationship was seen in the portrayal of the male nurse by boys as stereotypically masculine ($r = 3.24, p < .001$) and the portrayal of the male nurse by girls as nonstereotypic, that is, stereotypically feminine ($r = 3.26, p < .001$). A similar relationship was not evident in the portrayal of the female mechanic. Both boys and girls tended to portray the female mechanic as stereotypically feminine (60% boys, 73% girls).

To evaluate whether there were differences between the two stories where the lead character was male, an omnibus chi-square was conducted and found to be significant, $\chi^2(10, N = 255) = 52.155, p < .001$. Author's grade was again independent. Author's gender and character development were significantly related, $\chi^2(3, N = 255) = 40.484, p < .001$. Boys more frequently than girls made the male characters stereotypically masculine (male mechanic, $r = 2.73, p < .01$; male nurse, $r = 3.1, p < .01$). If the male character were portrayed as nonstereotypic, this portrayal occurred more frequently with girls (male mechanic, $r = 4.67, p < .001$; male nurse, $r = 3.41, p < .001$). Given the two female character stories, the omnibus chi-square was not significant. Both boys and girls developed the female characters along stereotypically feminine lines (female mechanic, 60% boys, 73% girls; female nurse, 83% boys, 93% girls).

Changes in Gender of Lead Character

Changes in the gender of the lead character were not at a sufficient frequency level to allow for chi-square analysis. However, an interesting trend was noted. Change in the lead character's gender occurred more often in nonstereotypic stories ($n = 21, 7.5\%$) than in stereotypic stories ($n = 4, 1.4\%$). After the gender change, the characters were then developed along the new stereotypic lines, that is, the male nurse became a "she" and then was developed as stereotypically feminine.

DISCUSSION

This research examined stories written by third- and sixth-grade boys and girls who were presented with story starters featuring male and female characters in both stereotypic and nonstereotypic occupational roles. Stories were examined to determine whether the students maintained the character

in the assigned occupational role, developed the character along gender-stereotypic or -nonstereotypic lines, and changed the lead character's gender.

Strong evidence of gender-stereotypic thinking was manifested in several ways in the stories of both boys and girls. Consistent with gender-stereotypic thinking, writers had the least difficulty maintaining a character in role when the role was occupationally gender-stereotypic. All boy writers and young girl writers had the most difficulty maintaining a character in role when the character's gender did not match the occupational gender stereotype. Occupation aside, the lead character most often was developed as consistent with the gender stereotype. The one exception was seen in girl writers who developed the male nurse character as stereotypically female. One explanation of this finding may be that girls are less stereotypic in their thinking and consequently can develop a male character in a nonstereotypic occupation. Another explanation may be that the gender of girl writers was critical in developing the story character and that they were responding to the occupational role of nurse, an occupation which is more compatible with their own gender. This would imply, then, that the girls were responding in a gender-stereotypic way. The latter explanation seems plausible given the difficulty that girls had keeping the nonstereotypic female mechanic in role. Final evidence of gender-stereotypic thinking could be seen in nonstereotypic stories where the gender of the lead character was changed by the writer. Some children may have found the nonstereotypic character too discrepant. Changing the female mechanic to a "he" and the male nurse to a "she" was more acceptable to the gender expectations of the writers and allowed them to continue their story.

The results of this research are consistent with the findings of past research conducted by Trepanier-Street and Romatowski (Romatowski & Trepanier-Street, 1987; Trepanier & Romatowski, 1985; Trepanier-Street & Romatowski, 1986a, 1986b). In past research on gender perceptions—in which the writing occurred in an unstructured, open-ended activity—the students' stories also were found to be highly gender-stereotypic. By design, the present research was focused, structured, and limited in scope. The writing was structured to focus on the stereotyping issue by purposefully placing one half of the characters in nonstereotypic roles. When confronted with characters in nonstereotypic roles, the subjects changed the character to be more consistent with their own stereotypic thinking. Some subjects even changed the gender of the lead character in nonstereotypic roles to be consistent with the gender stereotype of that occupational role. This difficulty with nonstereotypic information was consistent with the research on memory and gender (Koblinsky, Cruse, & Sugawara, 1978; Liben & Signorella, 1980;

Martin & Halverson, 1983; Signorella & Liben, 1984; Trepanier-Street & Kropp, 1986). Some research even suggested that when given a non-stereotypic character to remember, subjects may transform the gender of the character to be consistent with gender role knowledge.

Results were also consistent with prior creative writing research (cited earlier) which suggested developmental changes within sixth-grade girls. In the prior research, girls in the fifth and sixth grades, as compared to girls in grades 1 through 4, began to develop the female characters in their stories. They assigned these female characters more emotions, actions, and attributes. In the present research, sixth-grade girls as compared to third-grade girls were better able to keep the male nurse in the traditionally feminine occupational role. Findings from both prior and current research may be attributable to sixth-grade girls' increased awareness of "self" and of their gender as well as increased knowledge and understanding of occupational roles traditionally assigned to females. These studies indicate, then, some important developmental changes regarding gender that are beginning to emerge in the young adolescent. To better understand the nature and the process of gender identity in young adolescents, further research is necessary. It would be important to know what the developmental differences are between adolescent boys and adolescent girls as they struggle with self-identity, gender identity, and potential occupational choices. Such research with young adolescents would be most timely and critical to the understanding of the process of gender development.

This study supported the literature on gender typing and confirmed the persistence of gender-stereotypic thinking in school-age subjects. The strength of that persistence was such that even when confronted with gender-discrepant information, there was conformity to the stereotype. This suggests that further efforts related to gender equity are needed, beginning with the early, formative years and persisting through adolescence. However, given the results of this study, it seems clear that efforts will need to be intensified when children move toward early adolescence and are in critical stages of self-definition and gender identity. Such efforts hold the promise that change will occur with ongoing commitment and persistent action. Rather than an occasional lesson on gender issues or a short-lived week of experiences, an integrated program focusing on gender equity is needed. Such a program must be sustained over a number of years and must be reflected in both curriculum and everyday practices. Given the potential influence of teachers, other school professionals, and the curriculum on an adolescent's thinking, a thorough review of educational programs and practices is needed for a more equitable view of men and women to prevail.

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