Gender Stereotypes During Adolescence: Developmental Changes and the Transition to Junior High School

Thomas Alferi and Diane N. Ruble
New York University

Although much evidence suggests that gender stereotyping becomes less flexible during adolescence, results of the present study indicate that gender stereotypes may actually become more flexible at some point during certain adolescent school transitions. The authors measured the flexibility of gender stereotypes in adolescents in Grades 4 through 11, using a combined cross-sectional and longitudinal design. Results indicated that flexibility increased for stereotypes concerning the psychological attributes of men and women after the transition into junior high school, regardless of whether this transition occurred during the 7th or 8th grade. Over the remaining years of junior high and high school, stereotype flexibility decreased. These results help resolve previous inconsistencies found in the literature by suggesting when and why changes in gender stereotype flexibility versus rigidity occur during adolescence.

Adolescence, as the period of life between childhood and adulthood, is characterized by many important changes. As an individual traverses this period, beliefs held as a child may start to change. For example, young adolescents' attitudes toward social conventions are markedly different from those of children and older adolescents (Smetana, 1988). Among the most important sets of social-conventional beliefs likely to change at this time are those concerning gender. Indeed, considerable theoretical analysis suggests that adolescence is a special time for gender, a time when gender-related beliefs may become intensified (e.g., Hill & Lynch, 1983) or be transcended (e.g., Rebecca, Heffner, & Oleshansky, 1976). On the one hand, a newly emerging identity as a sexual being may lead to heightened concerns about gender role expectations and increased polarization of attitudes (Katz, 1979). On the other hand, continuing cognitive maturation should facilitate a more flexible and relativistic view of gender norms (Eccles, 1987).

The literature has shown support for both predictions. Several studies have reported increased flexibility in adolescence relative to childhood (Carter & Patterson, 1982; Katz & Ksansnak, 1994). For example, Nelson and Keith (1990) found that 8th graders held more flexible beliefs about the characteristics associated with gender (e.g., "How important is it for a man to be gentle?") than did 5th graders. In contrast, other researchers have suggested that gender-related flexibility decreases as a child enters adolescence (Galambos, Almeida, & Petersen, 1990; Guttentag & Longfellow, 1977; Hill & Lynch, 1983). For example, in a study of children in kindergarten, 3rd, 5th, and 8th grades, Stoddart and Turill (1985) found that only kindergartners and 8th graders ranked gender role violations as more wrong than personal and conventional violations.

In this latter set of findings, the authors would appear to question conclusions from previous reviews of the gender stereotyping literature that flexibility of gender beliefs increases with age and with concomitant flexibility in cognitive operations (Eisenberg, Martin, & Fabes, 1996; Huston, 1983; Ruble & Ruble, 1982). Although several explanations could be offered for the inconsistent findings across studies, two seem particularly noteworthy. First, there is considerable variation in the exact age range that defines the stage of adolescence. Some studies are limited to late elementary school or junior high school ages (7th-8th grades), and others examine high school ages (9th-12th grades). Interestingly, on theoretical as well as empirical grounds, researchers have reason to suspect that these two periods might differ (Eccles, 1987; Katz, 1979). In particular, Katz has suggested that young adolescents may exhibit greater openness toward flexible gender roles than children but become increasingly rigid or polarized later in adolescence.

One problem in evaluating this hypothesis is that flexibility has been operationalized in many different ways; this may explain the variations observed in the above studies. It is thus noteworthy that in studies directly comparing younger and older adolescents, researchers have reported findings consistent with this hypothesis. In three studies examining beliefs about gender differentiation, 7th and 8th graders were more flexible, whereas older, high-school-aged adolescents were more rigid (Sigelman, Carr, & Begley, 1986; Ullian, 1976; Urberg, 1979). In addition, findings based on other measures of flexibility gen-
erally support this trend. Simmons and Blyth (1987) found a
decrease between Grades 6 and 10 in adolescents’ ratings of how
often they acted like the opposite sex, although a floor effect for
boys made this change significant for girls only. Emmerich and
Shepard (1982) found that positive evaluations of targets whose
behavior was sex appropriate (i.e., traditional) tended to in-
crease between early and later adolescence among White partic-
ipants. (Interestingly, Black participants were more likely to
show a decrease.) Finally, in Biernat (1991), flexibility was op-
erationalized as the extent to which gender-related social judg-
ments are based on individuating information (e.g., behaviors)
as opposed to biological sex. Although statistical comparisons
of younger and older adolescents were not presented, an exami-
nation of the figures reveals that older adolescents were some-
what less flexible in their judgments than were younger
adolescents.

A second possible reason for differing conclusions across
studies is the failure to include in the design an examination of
other changes during adolescence that are likely to affect a shift
toward increasing flexibility or rigidity. One recent exception is
a study by Galambos et al. (1990), which included an exami-
nation of pubertal status. However, the increased salience of
gender and the pressure on individuals to be attractive as sexual
relationships begin are the main reasons for expected increases
in rigid distinctions between the sexes (Eccles, 1987; Hill &
Lynch, 1983); changes in social structure, as opposed to puber-
tal status, are probably more closely related to the specific hy-
pothesis of changing flexibility of gender-related beliefs. Such
changes in social structure are likely to be much more evident
for young adolescents who go to junior high school and are thus
exposed to older children who have begun to date than for those
who remain in elementary school. Thus, one possible reason for
differences across studies examining 8th and 9th graders is that
some may have been in elementary school and others in junior
high school.

In addition to changes in exposure to older children associ-
ated with entry to junior high school, the process of the transi-
tion itself may influence the flexibility of gender beliefs. Recent
theoretical analyses have suggested that the passage from one
social life phase to another is marked not only by changes in
actual social experiences and social regulation but also by
changes in individual orientations toward information (Hig-
gins, Loeb, & Ruble, 1995). According to a phase model of
transitions described by Ruble (1994), when an individual en-
ters a new life phase or subculture, his or her previously existing
beliefs and expectations may be challenged by the social de-
mands of the new life phase. The individual will then be stimu-
lated to engage in active information seeking in order to form
new beliefs and expectations. During this period of construc-
tion or reconstruction, preexisting beliefs and expectations are
held only tentatively; yet, once the fundamental knowledge has
been acquired, the individual begins to draw some conclusions
to consolidate the new information. Consequently, at this se-
cond phase, the individual may be particularly motivated to sup-
port the recently formed conclusions and may show a kind of
rigid adherence to or personal investment in information and
activities that are consistent with them.

The transition to junior high school is likely to be an espe-
cially important life phase for changes in gender beliefs (Higgins
& Parsons, 1983; Meece, 1987). Junior high school differs from
elementary school in that children attend school with a larger
number and wider variety of peers, have more male teachers,
and begin new forms of gender-related behavior such as dating.
If these and other differences between the two types of schools
sufficiently challenge gender beliefs, Ruble’s (1994) model
would predict that adolescents will engage in active information
seeking to reconstruct their gender beliefs and that during this
period of construction, they will be less sure about the nature of
male and female characteristics than they were in elementary
school.

The present study was designed to test directly these three
hypotheses: (a) Differentiation in gender beliefs would decrease
with age into early adolescence but then increase again during
late adolescence; (b) the timing of these changes would be
affected by entry into junior high school; and (c) adolescents
may show a temporary increase in gender flexibility when they
first enter junior high school despite moving into an environ-
ment expected to increase polarization of gender. In order to
examine these hypotheses in the present study, we used a com-
bination of cross-sectional and longitudinal designs. During the
1st year of the study, participants were students in Grades 4
through 9. A subset of the 7th, 8th, and 9th graders were fol-
lowed for 2 additional years, providing information about ste-
reotype flexibility up to Grade 11. With very few exceptions
(Galambos et al., 1990; Lerner, Vincent, & Benson, 1976), re-
searchers have not used longitudinal designs in studies of gender
beliefs in children, making it difficult to draw clear conclusions
about developmental change. In the present study, we could ex-
amine developmental changes by looking at both differences
across students in different grades and changes in the same chil-
dren as they progressed across these same grades. In addition,
participants came from one of two neighboring school districts.
In the first district, the transition to junior high school was be-
tween 6th and 7th grade, whereas in the second school district,
the transition to junior high school was between 7th and 8th
grade. By using this design, we were in a position to distinguish
changing flexibilities associated with grade from those associ-
ated with the transition to junior high school. It was predicted
that stereotypic flexibility would be highest in the 7th graders in
the first district and in the 8th graders in the second district.
In addition, we expected flexibility to decline after the 1st year of
junior high school in both districts.

The measure used in the study examined flexibility of gender
beliefs about stereotypic characteristics (e.g., traits, competen-
cies, emotions). In order to test the hypotheses adequately, we
needed a measure that had certain properties. First, we were
interested in the social construction of gender and thus we
needed a measure that explicitly assessed beliefs about charac-
teristics that distinguish males and females. One problem with
using measures of participants’ interests in gender-related activi-
ties and their self-perceptions of gender-related characteristics
is that the actual link between such choices and gender is un-
clear. As Spence (1993) has persuasively argued, a woman’s self-
description as emotional and her choice of nursing as a career
may or may not be related to her constructions and attitudes
about gender. Because a critical component of the gender-inten-
sification hypothesis involves expectations about the nature of gender differences (Hill & Lynch, 1983), it seemed essential to measure these expectations directly rather than indirectly.

Second, we needed a measure that would allow a clear distinction between knowledge about gender stereotypic norms and flexibility in personal beliefs about those stereotypes. If students in the 1st year of junior high school are likely to say that math ability is equally characteristic of females and males, we cannot be certain that this represents a belief in gender flexibility as opposed to a lack of knowledge that math ability is stereotypically associated with males. Fortunately, a procedure that can easily make this distinction has been identified and is now widely used in the literature (Serbin, Powlishta, & Gulko, 1993; Signorella, Bigler, & Liben, 1993). Specifically, participants are asked whether a particular characteristic is associated with males, females, or both. The number of “both” responses constitutes the measure of flexibility. Subsequently, participants are asked to reclassify the items as to whether they are more associated with males or females as an index of their gender knowledge.

Third, we needed a measure of flexibility that was relevant to the expected changes in adolescence and would show sufficient variability. Although the Sex Role Learning Index (Edelbrock & Sugawara, 1978) is a frequently used measure for children, it involves the categorization of objects (e.g., helmet, iron) that seemed less relevant to the changes in gender flexibility for adolescent participants. Other measures of flexibility used with elementary school children have involved stereotypes about occupations and roles. Unfortunately, several studies suggest that flexibility with such items approaches ceiling by 6th grade (e.g., Carter & Patterson, 1982; Lerner et al., 1976). Thus, we used a measure of flexibility with stereotypic characteristics (e.g., gentle, strong). Such items seem particularly relevant to the changes students may observe as they move from one social life phase to another (Higgins & Parsons, 1983) and to their changed expectations about gender related to sexuality. The items have also shown considerable variability in gender stereotyping among children in late elementary school (Serbin et al., 1993). Finally, one additional advantage of using this type of measure is that it matches most closely the measures used to study gender stereotyping among adults. In the literature on adults, researchers have amassed impressive evidence that such stereotypic expectations are a major determinant of what information is attended to and remembered about others, and of important decisions made about people in everyday interactions (Stangor & Lange, 1994).

Method

Participants

Participants were attending school in one of two adjacent school districts located in a suburb of New York City. After the superintendents and boards of education of these school districts granted permission to run the study, consent forms were mailed to the parents of all children in the appropriate grades. Approximately 25% of the eligible students received parental consent to participate in this study. This response rate is typical of public schools in the greater New York City area. The population from which these samples were drawn is quite homogeneous.

Table 1

<table>
<thead>
<tr>
<th>Grade</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Main sample</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>30</td>
<td></td>
<td></td>
<td>K-Grade 6</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>33</td>
<td></td>
<td></td>
<td>K-Grade 8</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>58</td>
<td>54</td>
<td>44</td>
<td>K-Grade 6</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>46</td>
<td>30</td>
<td>23</td>
<td>K-Grade 6</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>28</td>
<td>19</td>
<td>15</td>
<td>K-Grade 8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Note. Each cell contains an approximately equal number of boys and girls. K = kindergarten.


Over 95% of the students in each of the school districts were White. Median annual incomes of all families in the first and second school districts were $52,200 and $56,600, respectively. Mean ages of students were as follows: 4th graders, 9.4 years; 5th graders, 10.4 years; 7th graders, 12.3 years; 8th graders, 13.3 years; 9th graders, 14.2 years. In School District 1, kindergarten through sixth grades were in elementary schools, 7th and 8th grades were in a single junior high school, and 9th through 12th grades were in a single high school. One hundred ninety-five students (91 girls, 104 boys) in Grades 4, 5, 7, 8, and 9 participated in the 1st year of the study. Of the 7th, 8th, and 9th graders, 82 students (62% of the original sample) were tested again for 2 additional years. See Table 1 for a more complete breakdown of the sample.

School District 2: Junior high school begins in 8th grade. To better examine the effects of school environment on gender stereotype flexibility, a small sample of students were tested in another school district. In this second school district, kindergarten through 6th grades were in elementary schools, 7th grade was alone in a middle school, 8th and 9th grades were in a separate junior high school, and 10th through 12th grades were in a high school. One hundred thirty-two children in Grades 4, 5, 7, 8, and 9 were tested during the 1st year of the study (see Table 1 for a breakdown). Almost all of the 7th-grade children were tested again 1 year later. Only a small number of 7th-, 8th-, and 9th-grade students were available to be tested in this school district. Despite the small n's, all of the important data points in this study are drawn

1 Indeed, in our pilot testing to select items that showed clear gender stereotypic knowledge, we were surprised at the lack of agreement shown by adolescents to items, such as “good at math,” “logical,” and “gives up easily,” that are clearly stereotyped among adults.

2 Sixth-grade students were not included in the study because the study was part of a larger investigation of social-cognitive changes across school transitions in which we had a sample entering school (preschool, kindergarten, and first grade) and an adolescent sample making junior high school transitions (the present sample), who were followed for 3 years. During the 1st year of the study, we collected data from 4th and 5th graders simply to provide an intermediate point of comparison.
from two cohorts, one cross-sectional and one longitudinal. (See other comments on this small sample size in the Discussion section and immediately below.)

**Additional Participants**

An additional sample of participants was tested in order to replicate the findings from the main sample and to directly test the hypotheses in sixth-grade students. The additional participants were 28 sixth graders (14 boys, 14 girls) from a private school that housed Grades kindergarten (K) through 8 and 22 sixth graders (10 boys, 12 girls) from a private school district that separated Grades K–6 from Grades 7–9. Approximately 45% of all sixth graders in each school received parental permission to participate in our study. This response rate is not unusual for private schools in the New York City area but is higher than typical response rates for public schools.

The additional students were tested in early June (at the end of their 6th-grade year) and again in November of the following school year when all students were in 7th grade. Thus, the students in the school district that separated Grades K–6 from Grades 7–9 made a transition from elementary to junior high school during the course of this study, whereas the students in the school district that included Grades K–8 did not make a school transition.

Data from the additional participants differ from those in the main sample in three important ways. First, the additional participants were not all from private school. Second, these students were tested approximately 3 years after the completion of the main study. Third, the time lag between testing dates was 5 months for the additional participants and 1 year for the main sample. Given these differences, the additional data are not directly comparable with the data in the original study. Thus, instead of just adding the additional participants to the main sample, the data from the additional participants are analyzed separately (see Analysis 4).

**Measure**

The measure of gender stereotyping consisted of 12 trait-related terms, half of which were masculine (e.g., explores strange places, careless, active) and half of which were feminine (e.g., gentle, polite, sad). In addition, half were positive and half were negative. Following well-established procedures (Serbin et al., 1993), participants were asked to indicate whether the items described males, females, or both. For items classified as both, participants were subsequently asked to recategorize the items with the both option removed. Selection of the both option represented gender stereotype flexibility. Classification as male or female after the both option was removed represented gender stereotype knowledge (Signorella et al., 1993).

The 12 items used in the measure were selected from previous research on gender stereotyping, and each item was shown to be highly associated with only one sex (e.g., Koblynky, Cruse, & Sugawara, 1978; Williams, Bennett, & Best, 1975; Williams & Best, 1990). Similar to the items used in the Williams et al. (1975) study, some of the traits in the current scale were expressed in terms of behaviors (e.g., runs away from scary places) whereas other traits were expressed in terms of competencies or emotions (e.g., angry). Item selection was contingent on participants' ability to consistently classify them as being stereotypically masculine or feminine. Indeed, preliminary analyses of the present set of items indicated that gender knowledge was extremely high. Across all grades, the percentages of classifications that were congruent with current gender stereotypes ranged from 81% to 97% (overall mean = 91%), which was considerably higher than the 75% cutoff used in previous research (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972). Stereotype knowledge in this sample of children and young adolescents did not vary as a function of age or sex.

Gender stereotype flexibility scores were calculated for each participant. Items were scored as 1 if both option was initially selected and 0 if it was not. The high knowledge scores ensure that when participants are not responding with a both option, they are providing the stereotyped gender response in a vast majority of the cases. Two flexibility scores were computed for each participant. A flexibility score for the masculine stereotype was calculated by averaging the item flexibility scores for the six masculine stereotyped items, and a flexibility score for the feminine stereotype was calculated by averaging the item flexibility scores for the six feminine stereotyped items. These scores represent each participant's proportion of both responses to either the masculine or the feminine items. Higher scores represent greater stereotype flexibility. Masculine and feminine stereotype flexibility scores were correlated, r(326) = .52, p < .001.

Cronbach's alpha for the 12-item flexibility scores was .70 in the 1st year and .72 and .80 in the 2nd and 3rd years of the study, respectively. As an additional check on the issues of scale validity and reliability, additional data were collected on an independent sample of 140 children in Grades 6–8. Participants completed a gender stereotype scale similar to the one used in the original study; however, this modified scale contained the original 12 items as well as 12 additional items. The correlation between the flexibility score obtained from the original 12 items and the flexibility score obtained from the additional 12 items was, .77 (p < .001), suggesting that the present 12-item measure was adequate to assess a broad, gender-linked trait flexibility. Similar to the original sample, the flexibility scores of the new sample were reliable. The alpha coefficient of flexibility scores in the new sample (based on only the original items) was .71.

Because flexibility is intended to tap attitudes toward gender stereotypes and not knowledge of these stereotypes, convergent validity may be assessed by comparing flexibility with an established measure of gender-related attitudes. Thus, participants in the independent data set also filled out the Attitudes Toward Women Scale for Adolescents (Galambo, Petersen, Richards, & Gitelson, 1985). Although overall flexibility does not necessarily imply positive attitudes toward women, certain types of flexibility do. Specifically, classifying stereotypically positive masculine traits as describing females as well as males (i.e., both) implies a positive attitude toward women, and classifying stereotypically negative feminine traits as describing both males and females weakens the association between femininity and negativity and thereby also implies a more positive attitude toward women. As expected, positive attitudes toward women were significantly correlated with flexibility scores based on the positive masculine items (r = .32, p < .001) and with flexibility scores based on the negative feminine items (r = .35, p < .001). This pattern was the same for both boys and girls.

**Procedure**

The 4th- and 5th-grade students were interviewed individually. Participants were presented with three response cards reading either "men or boys," "women or girls," or "both" and the following instructions: "Now I'm going to ask you to match a phrase or word to whom you think it best describes—men or boys, women or girls, or both." Participants were further instructed to indicate their responses by pointing to the appropriate card and were then presented with the 12 items in the scale. Each item was printed on a separate index card and randomly presented to participants. After they classified all the items, the both

---

3 Because this measure was included as part of a battery of measures assessing changes in children's perceptions of themselves and others, it was necessary to keep the measure as short as possible. Analyses on an independent sample described in the text, however, document that the measure is a good representation of gender stereotypes.
option was removed, and participants were asked to recategorize the items originally classified as both into one of the two remaining categories: men or boys, or women or girls. Older participants were tested in group settings. Their task was the same, except that they responded in a questionnaire format. Testing for all participants (in the main study) for all years occurred during the month of October.

Results

Analysis 1: Cross-Sectional Data

The first analysis used all the data from the 1st year of testing. This analysis represented a cross-sectional test of the hypothesis that stereotype flexibility would increase on entering junior high school regardless of whether this transition occurs during the 7th or the 8th grade. An analysis of variance (ANOVA) was performed on flexibility scores from the 1st year of testing using grade (4, 5, 7, 8, or 9), and school district (transition in 7th grade or 8th grade) as between-subject variables and stereotype gender (masculine or feminine) as a within-subject variable. As predicted, this analysis produced a significant Grade X School District interaction, \( F(4, 313) = 2.74, MSE = 0.05, p < .05 \). Mean flexibilities, collapsed over the masculine and feminine stereotypes, for each grade in the two school districts are presented in Figure 1.

As predicted, the 1st year of junior high school was associated with an increase in gender stereotype flexibility. A planned comparison indicated that the mean flexibility score of the 7th graders in School District 1 \((M = .63)\), in which junior high school began in 7th grade, was significantly higher than the mean flexibility score of all the other students in this district \((M = .51), t(313) = 3.48, p < .001.\) In School District 2, where 8th grade was the 1st year of junior high school, the mean flexibility score of the 8th graders \((M = .72)\) was significantly higher than the mean flexibility score of all the other students in this district \((M = .50), t(313) = 2.79, p < .01.\)

A series of planned comparisons between same-grade students in the two districts was also conducted. The mean flexibility score of 7th graders in School District 1 \((M = .63)\) was significantly higher than the mean flexibility score of 7th graders in School District 2 \((M = .49), t(313) = 2.36, p < .05.\) The mean flexibility score of the 8th graders in School District 2 \((M = .72)\) was greater than and marginally significantly different from the mean flexibility score of the 8th graders in School District 1 \((M = .56), t(313) = 1.95 p < .07.\) Flexibility scores of 4th, 5th, and 9th graders in the two districts were not significantly different. Grade produced a significant main effect, \( F(4, 313) = 5.99, p < .01.\) The interpretation of this main effect, however, was modified by the significant Grade X School District interaction and was discussed above. No overall differences between the two school districts or any other significant effects involving grade or school district were found. Stereotype gender also produced a significant main effect, \( F(1, 313) = 5.73, p < .05,\) with the masculine stereotype \((M = .51)\) less flexible than the feminine stereotype \((M = .54).\)\(^4\)

\(^4\) Given the small \(n\) in a few of the cells, sex of subject was not included as an independent variable in the ANOVA presented in the text. This is not a conceptual problem as sex differences in flexibility over the tran-
Analysis 2: Longitudinal Subsample

The second analysis compared data from the longitudinal subsample in School District 2 (i.e., 7th graders who were also tested in 8th grade) with the comparable sample from School District 1. This analysis represented a longitudinal test of the hypothesis that entrance into junior high school is associated with an increase in stereotype flexibility. The data from this longitudinal sample followed almost exactly the general pattern of change established in the cross-sectional sample. Mean flexibilities from the longitudinal data are presented in Figure 1. An ANOVA was conducted on the longitudinal subsample data using sex of subject and school district as between-subject variables, and year of study (in Year 1, all students were in 7th grade; in Year 2, all students were in 8th grade) and stereotype gender (masculine or feminine) as within-subject variables. This ANOVA revealed a significant interaction between school district and year of study, F(1,138) = 11.63, MSE = 0.08, p < .01. The 7th graders in School District 2 increased in flexibility as they entered the 8th grade and junior high school: 7th-grade flexibility, M = .51; 8th-grade flexibility, M = .71; 1st year of the study, F(1, 66) = 2.88, p < .01. The 7th graders in School District 1 who had already begun junior high school marginally decreased in flexibility as they entered 8th grade: 7th-grade flexibility, M = .63; 8th-grade flexibility, M = .55; t(66) = 1.97, p = .053. These results parallel those found in the cross-sectional sample. There were no other significant effects in this longitudinal subsample ANOVA.

Analysis 3: Full Longitudinal Sample

The next analysis used all available data from the longitudinal sample in School District 1. Unlike students in School District 2, some of the 7th, 8th, and 9th graders in School District 1 were tested for 2 additional years. The data from this longitudinal component of the study revealed a decrease in gender stereotype flexibility in each of the three cohorts. Participants in the 7th grade were the most flexible (1st year of junior high school), and overall flexibility (collapsed over masculine and feminine flexibility) decreased with age. These data are presented in Figure 1.

An ANOVA was conducted on the longitudinal data, using sex of subject and cohort (7th, 8th, or 9th grade in 1st year of study) as between-subject variables and stereotype gender (masculine or feminine) and year of study (1st, 2nd, or 3rd) as within-subject variables. Year of study produced a significant main effect, F(2, 152) = 3.44, MSE = 0.06, p < .05; Year 1, M = .62; Year 2, M = .65; and Year 3, M = .55. A least significant difference (LSD) test, performed at the 5% level, indicated that the Year 1 mean flexibility was significantly higher than both the Year 2 mean and the Year 3 mean. The mean-flexibility scores from Year 2 and Year 3 were not significantly different. Interactions among the variables were not significant, thus indicating similar rates of decreasing flexibility in the three cohorts.

Finally, the Sex of Subject × Stereotype Gender × Year of Study interaction was significant, F(2, 152) = 4.07, p < .05. An LSD test was performed, indicating that during the 1st year of the study, boys were less flexible with the masculine stereotype (M = .54) than were girls (M = .68). Flexibility scores of boys and girls did not differ for the feminine stereotype during the 1st year of the study, nor were there any significant differences between boys' and girls' masculine or feminine flexibility scores during the remaining years of the study.

Analysis 4: Additional Participants

The final analysis used the additional data collected from 6th-grade students at two different private schools. The results of this analysis replicate the findings presented in Analyses 1 and 2 (see Figure 1). Students who made a school transition between the Time 1 and Time 2 testing dates showed an increase in gender stereotype flexibility (Time 1, M = .65; Time 2, M = .72), whereas same-age students who attended the K–8 school did not show a statistically significant increase in flexibility over the course of the study (Time 1, M = .44; Time 2, M = .45). A repeated measures ANOVA was performed on the flexibility scores using sex of subject and type of school (transition vs. no transition) as between-subject variables and time (Time 1 or Time 2) as a within-subject variable. This ANOVA indicated that the students who made the transition to junior high school had a significantly larger increase in stereotype flexibility than did students who did not make a school transition; the Type of School × Time interaction was significant, F(1, 46) = 3.92, MSE = 0.03, p < .05. Sex of student did not interact with changes in gender stereotype flexibility. Type of school did produce a significant main effect, F(1, 46) = 15.85, p < .01, with children from the transition school having higher flexibility than children from the nontransition school. The effect may be due to differences in socioeconomic status. The transition schools were located in an upper-middle-class neighborhood, and the nontransition school was located in a middle-class neighborhood. Nonetheless, the changes in flexibility over time support the hypotheses. These changes cannot be attributed to a regression toward the mean, as the group that started off high in flexibility was the one that increased in flexibility after the transition.

5 In addition to gender stereotypes, item valence was also examined. Both boys and girls were consistently most flexible with positive feminine stereotypes and least flexible with negative feminine stereotypes.
GENDER STEREOTYPES DURING ADOLESCENCE

Discussion

Although some researchers have suggested that adolescence is a time of increasing stereotype flexibility, other researchers have proposed that adolescence is associated with decreasing stereotype flexibility. The present research suggests a resolution to these conflicting views. Gender stereotype flexibility may, in fact, increase or decrease during adolescence, depending on the social environment of the individual. Consistent with predictions derived from Ruble's (1994) phase model of transitions, an increase in stereotype flexibility was observed following a change in an individual's social environment, that is, the transition to junior high school. After this increase, stereotype flexibility decreased during middle and late adolescence.

The consistency of the pattern across districts varying in the timing of the junior high school transition was remarkable. In School District 1, flexibility peaked during the 7th grade, which was the beginning of junior high school. Adolescents from School District 2 showed a peak flexibility during 8th grade, which was the beginning of their junior high school. Even though only a few students from School District 2 were available for this study, the effect of school transition on stereotype flexibility was nearly perfectly replicated in both the cross-sectional and the longitudinal data. The data point represented by the small sample of 8th graders in School District 2 was replicated by the 2nd-year data for the larger sample of 7th graders. The additional data also support this pattern of change. Sixth-grade students who made a transition to junior high school in 7th grade increased in flexibility, and 6th grade students who remained in the same school in 7th grade showed no change in stereotype flexibility.

The pattern of results in this study is consistent with the finding of a recent meta-analysis in that flexibility appears to increase throughout the elementary school years (Signorella et al., 1993). Only after the 2nd year of junior high school does flexibility start to decrease. Taken together, then, the present findings support our three main predictions: (a) Flexibility in gender stereotype beliefs increases during early adolescence but then declines, (b) the timing of these changes is linked to entry to junior high school, and (c) gender beliefs are most flexible immediately after the transition to junior high school. It is important to note that these findings are specific to one kind of gender flexibility—that concerned with beliefs about differences in the characteristics of males and females. Whether or not these same trends would be observed with other kinds of flexibility, such as personal preferences and actual behaviors, is not clear.

As reviewed earlier, some studies have found a similar decline between early and later adolescence with other measures of flexibility, but the influence of the junior high context and the process of a social transition may be limited to variables related to the social construction of gender.

A brief discussion of the social environments of the 7th- and 8th-grade students may help to shed some light on the conditions that may have prompted the reevaluation of gender stereotypes. In School District 1, 7th and 8th graders were together in junior high school. In School District 2, 7th graders were alone in a middle school, and 8th and 9th graders were together in a separate junior high school. Seventh-grade students from both districts experienced a transition from an elementary school, in which they spent the majority of their days in one classroom with one teacher, to a school structure divided into periods, in which they spent each period in a different classroom studying a different subject with a different teacher. These structural changes alone, however, cannot account for the observed increase in flexibility. Students in School District 2 did not increase in stereotype flexibility when they entered the 7th grade, even though they had just experienced a transition that largely changed their daily routines. For students in both school districts, the increase in flexibility was associated with the 1st year of junior high school with older students.

Higgins and Parsons (1983) have pointed out that, in addition to understanding their newcomer status, 1st year junior high school students encounter and must accommodate to a wider range of peers, presumably with a wider range of personality types, than they did in elementary school. The present study suggests that the increase in flexibility has more to do with adapting to a newcomer status, going from being the oldest student to the youngest student, and interacting with a wide range of older peers, and presumably new norms and pressures, than it does simply with changes in daily routine.

The observed increase in flexibility appears to be temporary. As the adolescent advances through junior high and high school, stereotype flexibility decreases. According to Ruble (1994), this decrease in flexibility may reflect the consolidation of newly formed gender beliefs, expectations, and stereotyped attitudes. The pressures placed on adolescents as they are being socialized into their adult roles (Hill & Lynch, 1983) may further decrease flexibility. This socialization pressure may strengthen newly formed or reaffirmed conclusions about gender stereotypes. It may seem paradoxical that stereotype flexibility increases as children enter an environment where their older peers hold less flexible stereotypes. Ruble's model, however, does not imply that children pattern their thoughts after older peers, and the data also suggest that this is not the case.

The increase in flexibility results from a motivation to learn about gender (as it exists in a junior high school subculture) after current gender beliefs (i.e., elementary school gender beliefs) are challenged by the entrance into this new life phase. Preexisting beliefs are suspended as information is gathered in order to form new conclusions about gender, leaving an individual without strong guides for gender stereotypes and producing the (temporary) increase in flexibility.

The longitudinal data did not indicate an increase in flexibility as students entered high school to parallel the increase found as students entered junior high school. Ruble's (1994) transition model may have predicted an increase in flexibility as these students entered high school, but only if the transition resulted in a new situation that sufficiently challenged the individual's current beliefs. The differences between junior high and high school may not be as great as the differences between junior high and elementary school and, therefore, may be insufficient to challenge the adolescent's current attitudes toward gender stereotypes. Moreover, a number of other important transitions are occurring at about the same time as the transition into junior high, such as the onset of puberty and dating. These additional transitions, which are no longer new to the
student entering high school, may work in conjunction with the transition to junior high to prompt a reevaluation of gender stereotypes. Future research is necessary to specify more precisely the transitions related to changes in stereotype flexibility.

Although no overall sex differences in level of flexibility were found, boys tended to have lower flexibility of the masculine stereotypes compared with girls. This finding is consistent with previous literature showing stronger gender-typing among boys than girls (e.g., Frey & Ruble, 1992) and perhaps is limited to the masculine stereotype because of greater value and prestige associated with the male role (Kohlberg, 1966; Ruble & Ruble, 1982).

In conclusion, adolescence appears to be a time of decreasing flexibility of gender stereotypes. However, increases in flexibility were observed after certain types of social life transitions. The possibility exists that adolescents might conclude that stereotypes are less predictive than they thought earlier if, after the transition, they receive information that is consistent with this conclusion. Researchers and practitioners interested in implementing social programs aimed at reducing sexism and gender stereotyping may find the transition to junior high school, associated with relatively high gender stereotype flexibility, the ideal time to foster egalitarian beliefs between the sexes. The literature on gender stereotype beliefs, including the findings of this study, suggest that the information adolescents appear to receive is that gender roles are strongly proscribed, and, consequently, their stereotype flexibility decreases. Nonetheless, the present data clearly suggest that beliefs even as well established as stereotypes about the characteristics of males and females may be susceptible to change during social life transitions.

References


Received November 29, 1994
Revision Received January 2, 1996
Accepted January 2, 1996 •

AMERICAN PSYCHOLOGICAL ASSOCIATION
SUBSCRIPTION CLAIMS INFORMATION

We provide this form to assist members, institutions, and nonmember individuals with any subscription problems. With the appropriate information we can begin a resolution. If you use the services of an agent, please do NOT duplicate claims through them and directly to us. PLEASE PRINT CLEARLY AND IN INK IF POSSIBLE.

PRINT FULL NAME OR KEY NAME OF INSTITUTION

MEMBER OR CUSTOMER NUMBER (MAY BE FOUND ON ANY PAST LABEL)

ADDRESS

DATE: YOUR ORDER WAS MAILED (OR PHONED)

CITY STATE/ZIP

PREPAID CHECK CHARGE

YOUR NAME AND PHONE NUMBER

CHECK CARD (CLEAR DATE)

TITLE

ISSUES: _____ MISSING _____ DAMAGED

VOLUME OR YEAR

(if possible, send a copy, front and back, of your cancelled check to help us in our research of your claim.)

NUMBER OR MONTH

Thank you. Once a claim is received and resolved, delivery of replacement issues routinely takes 4–6 weeks.

(TO BE FILLED OUT BY APA STAFF)

DATE RECEIVED:

ACTION TAKEN:

DATE OF ACTION:

STAFF NAME:

INV. NO. & DATE:

LABEL NO. & DATE:

Send this form to APA Subscription Claims, 750 First Street, NE, Washington, DC 20002-4242

PLEASE DO NOT REMOVE. A PHOTOCOPY MAY BE USED.