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# Perceived Experiences With Sexism Among Adolescent Girls

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This study investigated predictors of adolescent girls' experiences with sexism and feminism. Girls (N = 600; M = 15.1 years, range = 12-18), of varied socioeconomic and ethnic backgrounds, completed surveys of personal experiences with sexual harassment, academic sexism (regarding science, math, and computer technology), and athletics. Most girls reported sexual harassment (90%), academic sexism (52%), and athletic sexism (76%) at least once, with likelihood increasing with age. Socialization influences and individual factors, however, influenced likelihood of all three forms of sexism. Specifically, learning about feminism and gender-conformity pressures were linked to higher perceptions of sexism. Furthermore, girls' social gender identity (i.e., perceived gender typicality and gender-role contentedness) and gender-egalitarian attitudes were related to perceived sexism.

Gender-based discrimination during adolescence can include both sexual harassment as well as gender bias in academic and athletic contexts. Sexual harassment occurs in the form of unwanted sexual behavior and sexist comments (see American Association of University Women [AAUW], 2001). Repeated sexual harassment can negatively affect girls' self-esteem, body image, adjustment, achievement, and beliefs about others (AAUW, 2001; Felix & McMahon, 2006; Goldstein, Malanchuk, Davis-Kean, & Eccles, 2007; Hand & Sanchez, 2000; Harned & Fitzgerald, 2002; Holt & Espelage, 2003; Larkin & Popaleni, 1994). In addition, girls are often treated unfairly in nontraditional achievement contexts (see AAUW, 1998; Hyde & Kling, 2001; Leaper & Friedman, 2007). Many parents tend to have higher expectations of sons over daughters in math, science, computers, and sports (Fredricks & Eccles, 2002; Jacobs, Davis-Kean, Bleeker, Eccles, & Malanchuk, 2005; Simpkins, Davis-Kean, & Eccles, 2005; Tenenbaum & Leaper, 2003). These gender-typed

expectations are also reinforced in children's peer groups (see Leaper & Friedman, 2007) and in class-rooms (see AAUW, 1998; Basow, 2004; Jones & Dindia, 2004; Meece & Scantlebury, 2006; Spencer, Porche, & Tolman, 2003). In turn, because girls often internalize these lower expectations, gender-biased treatment is believed to affect girls' self-concepts, socioemotional adjustment, achievement, and career choices (see AAUW, 1998, 2001; Freedman-Doan et al., 2000; Hyde & Kling, 2001; Leaper & Friedman, 2007).

Several studies have documented the development of children's gender stereotypes and attitudes (e.g., Galambos, Petersen, Richards, & Gitelson, 1985; Katz & Ksansnak, 1994; Martin & Ruble, 2004; Powlishta, Serbin, Doyle, & White, 1994; Ward & Friedman, 2006). Yet, although gender-stereotyped beliefs reflect (and perpetuate) gender inequities, few studies have directly examined girls' perceptions of those gender inequities. The existing research suggests that girls often tolerate and/or do not recognize sexual harassment when it occurs (Terrance, Logan, & Peters, 2004; Witkowska & Gådin, 2005). Studies also indicate that girls' experiences with sexual harassment increase with age during adolescence (McMaster, Connolly, Pepler, & Craig, 2002; Pepler et al., 2006). There have been fewer reports looking at age-related changes in girls' perceived experiences with gender bias in academics and athletics. Moreover, to our knowledge, no prior studies have investigated factors that may contribute to girls' perceptions of all three forms of sexism. Therefore, in the present study, we employed a cross-sectional design to investigate possible

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influences on girls' perceived experiences with sexism during the course of adolescence.

#### Brown and Bigler's (2005) Developmental Model

The current study was partly guided by Brown and Bigler's (2005) developmental model of children's perceptions of discrimination. These authors proposed that perceiving discrimination is more likely in situations relevant to group-based stereotypes. In their role congruity theory, Eagly and Karau (2002) similarly posited that discrimination against girls and women would be most likely in domains incongruent with traditional gender roles. As described earlier, these domains include achievements in math, science, technology, and athletics. In addition, the treatment of girls and women as sexual objects is another area associated with traditional gender typing (Glick, Diebold, Bailey-Werner, & Zhu, 1997). Accordingly, we also examined girls' perceptions of sexual harassment.

In their model, Brown and Bigler (2005) additionally proposed that children's perceptions of discrimination are influenced by a combination of developmental, socialization, and individual factors. Below, we review the components that are relevant to the present study.

Developmental influences. Brown and Bigler (2005) identified a set of cognitive prerequisites for children and adolescents to perceive discrimination. They include having a cultural understanding of gender and gender stereotypes (e.g., McKown & Weinstein, 2003), an awareness that other people can have discriminatory intentions (e.g., Harris, Donnelly, Guz, & Pitt-Watson, 1986), an ability to make social comparisons about how others are treated relative to the self (e.g., Ruble, Boggiano, Feldman, & Loebl, 1980), and an ability to make moral judgments about fairness and equity (e.g., Damon, 1994; Killen, Lee-Kim, McGlothlin, & Stangor, 2002). These cognitive achievements are normally attained by middle childhood. Accordingly, in the only prior study to explicitly investigate developmental changes in children's perceptions of gender-biased treatment, Brown and Bigler (2004) observed girls were capable of accurately perceiving sexism depicted in written vignettes by around the age of 10 years. Hence, the adolescent girls in our sample should generally have the cognitive capacity to recognize sexism.

Although most adolescent girls should generally be capable of detecting sexism, we anticipated agerelated increases in reports of sexism for several reasons. First, relevant sociocognitive skills, such as societal-level perspective taking, can continue to develop throughout adolescence (e.g., Selman, 1980). Moreover, because adolescence can be a period of gender intensification characterized by increasing gender-role pressures (Crouter, Manke, & McHale, 1995; Galambos, Almeida, & Petersen, 1990; Wichstrom, 1999), girls' reports of sexism may also increase. For example, over the course of adolescence, girls sexually mature and show growing concerns with heterosexual attractiveness (see Jones & Crawford, 2006; Leaper & Anderson, 1997). This sexual maturity, in turn, tends to increase the likelihood of unwanted sexual attention and other forms of sexual harassment (McMaster et al., 2002; Pepler et al., 2006). Other manifestations of gender intensification can include mounting pressures to conform to gendertyped notions of achievement in academic and sport domains (see Leaper & Friedman, 2007). Therefore, sexist statements about girls' abilities in nontraditional domains such as math, science, and computers as well as athletics may become more likely over the course of adolescence. Based on these age-related changes, increases in perceptions of sexism may occur during adolescence. Conversely, however, genderrole conformity pressures may make it difficult for some girls to acknowledge sexist events. Thus, as reviewed next, social factors may be important.

Socialization influences. Building on Brown and Bigler's model (2005), we considered if girls' socialization experiences affected their likelihood of perceiving sexism. The two types of experiences that we explored were felt pressures for gender conformity and exposure to feminism. As previously mentioned, adolescence is often a period of gender intensification. We reasoned that many girls who feel pressures to conform to gender-typed norms may be unsatisfied with narrow, traditional gender roles (e.g., see Egan & Perry, 2001). Feeling restricted because of one's gender is conceptually similar—and possibly empirically linked—to perceiving sexism. Conversely, girls who downplay conformity pressures may be relatively happy with traditional gender norms and ignore sexist acts.

In addition, we hypothesized that exposure to feminism would increase the likelihood that girls would perceive sexism. Research with adults has shown that women who identify as feminists are more likely to report experiences with sexual harassment than women who do not identify as feminists (Brooks & Perot, 1991; Moradi & Subich, 2002). Feminism can provide a helpful cognitive framework for understanding experiences with sexism (Landrine & Klonoff, 1997). Although no prior studies have explicitly examined exposure to feminism in a non-adult sample, we anticipated that exposure to feminist ideas would be likely in adolescence. For

example, this is a period in which girls take more advanced social studies courses and are likely to learn about the first and second wave of the women's movements. To assess exposure to feminism, girls were asked if they had learned about feminism through sources such as the media or personal relationships. Retrospective research with adults suggests that these may be important influences on having a feminist awareness (Reid & Purcell, 2004; Williams & Wittig, 1997). Also, from a social-cognitive theoretical perspective (Bussey & Bandura, 1999), personal relationships and the media are important sources for learning.

Individual factors. Brown and Bigler (2005) also reviewed how individual factors such as people's self-concepts and beliefs can influence perceptions of discrimination. In our study, we considered aspects of girls' gender identity and gender attitudes. We employed a relatively new construct of gender identity based on individuals' evaluations of their gender group (Egan & Perry, 2001). These self-appraisals included the extent that girls perceived themselves as typical relative to other girls (i.e., gender typicality) and their satisfaction with gender-role norms for girls (i.e., gender-role contentedness). In addition, we examined girls' endorsement of gender-egalitarian versus traditional gender rights and roles. Based on gender schema theory and research (Martin, 2000; Martin & Ruble, 2004), girls are apt to see the world and interpret events in ways consistent with their worldview. Therefore, we predicted that perceiving sexism would be less likely among girls who either viewed themselves as typical or were content with gender-role prescriptions (e.g., see Foulis & McCabe, 1997). Conversely, we expected that recognizing sexism would be more likely among girls with genderegalitarian beliefs (e.g., see Brown & Bigler, 2005). That is, we posited that girls who endorsed the belief that boys/men and girls/women should be treated equally would be especially sensitive to instances of differential treatment.

We also explored if the socialization influences would interact with individual factors. For example, we expected that girls who endorsed gender-egalitarian beliefs, felt atypical for the gender, or felt discontent with gender-role norms would be especially likely to perceive sexism if they also experienced pressure from parents or peers to conform to gender norms. Further, we predicted that exposure to feminism would be particularly powerful if the messages of feminism corresponded with girls' worldviews. For example, girls who have learned about feminism might be more likely to perceive sexism in their own lives if they also either are

discontent with gender norms or hold gender-egalitarian attitudes.

Controlling for background factors. In our analyses, we controlled for the potential influences of ethnicity and socioeconomic status (SES) on girls' perceptions of sexism. As explicated in feminist standpoint theory, ethnicity/race and SES intersect with gender in complicated ways (Basow & Rubin, 1999; Stewart & McDermott, 2004). There are at least three related issues. One issue is that girls from different ethnic/ racial groups may be differentially sensitive to sexism. Girls from racial/ethnic minorities may be sensitive to all forms of discrimination and therefore also may be more likely than White European American girls to recognize sexism (see Kane, 2000). However, the opposite trend may also occur; that is, gender bias may be most salient to White European American girls because gender is their primary social identity (Turner & Brown, 2007). A second issue related to ethnicity/race is that gender is sometimes constructed differently in certain cultural contexts. For example, compared to White European American girls, gender-typing pressures tend to be more traditional among Latina girls. In contrast, gender typing tends to be less traditional among African American girls (see Kane, 2000; Reid, 1985). Finally, ethnicity and race are often confounded with SES; girls from European American backgrounds generally come from more economically privileged homes compared to girls from African American or Latina backgrounds (DeNavas-Walt, Proctor, & Lee, 2005). This confound with SES is pertinent when examining gender-related issues because SES and parent education levels are often positively correlated with gender-egalitarian attitudes (see Ex & Janssens, 1998). Therefore, we controlled for SES (using parents' education level) and ethnicity in our analyses on perceptions of sexism.

In addition to controlling for demographic variables, we took into account how achievement-related individual factors might affect girls' perceptions of achievement-related discrimination. Prior research has documented the importance of perceived competence and task value to later achievement in particular domains (Bandura, 1997; Eccles & Wigfield, 2002; Harter, 1992). We wanted to look beyond possible biases from these factors on girls' perceptions of sexism (e.g., low-achieving girls blaming others). Therefore, when analyzing social and individual influences on reports of academic and athletic sexism, we controlled for girls' achievement (math/science/ computer grades or sport participation, respectively) and perceived competence and task value (in math/ science/computer or athletics, respectively).

#### Summary

Given the limited amount of prior research on the topic, we documented the extent to which girls report experiencing sexual harassment, academic sexism, and athletic sexism during the course of adolescence. Our primary goal, however, was to investigate possible influences on girls' perceived experiences with sexism. To do this, we employed hierarchical regressions to test if and how various social and individual factors predicted awareness of sexism. In the first step of each regression, we controlled for SES, ethnicity, and (when relevant) achievement-related factors. In the second step, we entered the girls' age. In the third step, we entered socialization factors (felt conformity pressures from parents or peers; exposure to feminism in the media or from known persons). In the fourth step, we entered individual factors (perceived gender typicality, gender-role contentedness, and gender-egalitarian attitudes). In the final step, we entered interactions between the social and the individual factors. After controlling for the background factors in the first step, we predicted age, socialization factors, and individual variables would independently predict girls' reported experiences with sexism. In addition, we explored possible interactions between individual and social factors.

### Method

## **Participants**

The sample comprised 600 girls between 12 and 18 years (M = 15.2, SD = 1.4) recruited from middle, junior high, and high school classrooms; schoolrelated programs; and summer camps in either Georgia (9%), northern California (21%), or southern California (70%). Preliminary analyses indicated no significant differences across sites. The girls in the sample represented a range of ethnic backgrounds (49% Latina, 22.5% White/European American, 9% African American, 7.5% Asian American, 7.5% multiethnic, and 4.5% other) and socioeconomic levels. According to the participants' reports of their mothers' highest education level, 51% had no higher than a high school diploma, 35% had either attended some college or graduated with a bachelor's degree, and 15% had attended graduate school or attained a graduate degree. Based on reports of fathers' highest education level, 51% had no higher than a high school diploma, 30% had attended some college or attained a bachelor's degree, and 19% had attended some graduate school or attained a graduate degree. In terms of family arrangements, 62% of the girls lived

with both mother and father, 2% lived with mother and father at separate houses, 25% lived with only or mostly mother, 3% lived with only or mostly father, and 8% lived in other arrangements (e.g., with grandparents).

#### Procedure

The study was described as a survey about "what it means to be a girl." Consent from parents as well as participants was obtained. Participants completed several survey measures in their classroom or similar settings. They were instructed that their completion of the survey was optional and they could stop at any time. The survey included questions about participants' demographic background, family, and peer life, as well as their self-concepts and views regarding school achievement, gender roles, and sexism. In general, girls did not indicate difficulty reading or completing the survey at any age.

#### Measures

The following measures were used in the present analyses. Unless otherwise indicated, items were rated on a 4-point scale ( $1 = disagree \ strongly$ ,  $2 = disagree \ somewhat$ ,  $3 = agree \ somewhat$ ,  $4 = agree \ strongly$ ). The numbers of participants responding to each measure are indicated in Table 1.

Parents' education. Parents' education level was used as an index of SES. Participants separately indicated their mothers' and fathers' highest level of education as either: 1 = elementary school, 2 = some high school, 3 = high school graduate, 4 = some college, 5 = bachelor's degree, 6 = some graduate school, or 7 = graduate degree (master's, doctorate, medical, law, etc.). When information about both mothers and fathers was provided, their rankings were averaged. Otherwise, we used the value for the parent that was provided.

Expectancy and value ratings. Based on the expectancy-value model of achievement (Eccles & Wigfield, 2002; Wigfield & Eccles, 2002), participants were asked to rate themselves in math, science, computers, and sports. Two questions assessed their perceived competence using 3-point scales: "How good are you at ...?" (1 = not good at all, 2 = somewhat good, 3 = very good) and "If you were to list all the students in your year from the worst to the best in each of the following subjects, where would you put yourself?" (1 = one of the worst, 2 = middle, 3 = one of the best). Another two questions assessed perceived value and interest: "Compared to most of your other activities, how important is it for you to be good at ...?" (1 = not at all important, 2 = somewhat important, 3 = very

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Table 1 Correlations and Descriptive Statistics for Study Variables

| Variable                      | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15   | 16    | 17    | 18    | 19   | 20   |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|------|
| 1. Sexual harassment          | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _    | _     | _     | _     | _    |      |
| 2. Academic sexism            | .33** | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 3. Athletic sexism            | .46** | .59** | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 4. Parents' education         | 11**  | 10*   | 12**  | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 5. Math grade                 | 15**  | 14**  | 12*   | .39** | _     | _     | _     | _     | _     | _     | _     | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 6. Science grade              | 12**  | 12**  | 09*   | .38** | .55** | _     | _     | _     | _     | _     | _     | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 7. Computer grade             | 14**  | 12*   | 07    | .32** | .37** | .45** | _     | _     | _     | _     | _     | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 8. Math self-evaluation       | 13**  | 17**  | 10*   | .23** | .73** | .39** | .22** | _     | _     | _     | _     | _     | _     | _     | _    | _     | _     | _     | -    | _    |
| 9. Science self-evaluation    | 04    | 09*   | 07    | .22** | .27** | .59** | .17** | .32** | _     | _     | _     | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 10. Computer self-evaluation  | 01    | .05   | .03   | .00   | 08    | 01    | .28** | 02    | .15** | _     | _     | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 11. Sport participation       | .02   | 02    | .01   | .24   | .18   | .15** | .07   | .11*  | .11** | 02    | _     | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 12. Athletic self-evaluation  | .01   | .03   | .06   | .11   | .01   | .03   | 02    | 01    | .06   | .15** | .47** | _     | _     | _     | _    | _     | _     | _     | _    | _    |
| 13. Age                       | .20** | .15** | .15   | 36    | 40**  | 31**  | 22**  | 25**  | 14**  | .06   | 18**  | 12**  | _     | _     | _    | _     | _     | _     | _    | _    |
| 14. Felt peer pressure        | .13** | .19** | .26** | .08*  | 02    | 03    | 01    | 04    | 08    | .03   | .03   | .12** | 03    | _     | _    | _     | _     | _     | _    | _    |
| 15. Felt parent pressure      | .17** | .21** | .32** | 13**  | 12**  | 10*   | .01   | 11*   | 17**  | .06   | 07    | .09*  | .13** | .51** | _    | _     | _     | _     | _    | _    |
| 16. Learn feminism: media     | .21** | .13** | .20** | 03    | .05   | .03   | .01   | .07   | .06   | .03   | .06   | .03   | .17** | .04   | .08  | _     | _     | _     | _    | _    |
| 17. Learn feminism: persons   | .12** | .10** | .13** | .00   | .08   | .05   | .02   | .12** | .16** | .03   | .12** | .07   | .17** | 05    | 01   | .49** | _     | _     | _    | _    |
| 18. Gender typicality         | 20**  | 14**  | 21**  | 01    | .05   | .05   | .07   | .05   | .05   | 01    | 02    | .04   | 12**  | 12**  | 08*  | 03    | 06    | _     | _    | _    |
| 19. Gender-role contentedness | 22**  | 13**  | 20**  | 02    | 01    | .04   | 01    | .03   | 02    | 02    | 04    | 05    | 02    | 19**  | 13** | 09*   | 13**  | .24** | _    | _    |
| 20. Gender-egalitarian        | .12** | 14**  | 02    | .19*  | .18** | .16** | .11*  | .18** | .17** | 06    | .08*  | 09*   | 09*   | 13**  | 17** | .07   | .11** | 26**  | 30** | _    |
| M                             | 2.00  | 1.29  | 1.48  | 3.60  | 5.73  | 6.38  | 7.53  | 2.18  | 2.01  | 2.01  | 1.44  | 2.22  | 15.14 | 1.83  | 1.84 | 0.69  | 0.52  | 2.63  | 2.12 | 3.10 |
| SD                            | 0.75  | 0.48  | 0.50  | 1.75  | 3.27  | 2.95  | 2.67  | 0.54  | 0.53  | 0.53  | 0.50  | 0.62  | 1.43  | 0.67  | 0.81 | 0.40  | 0.34  | 0.64  | 0.66 | 0.43 |
| N                             | 600   | 594   | 499   | 591   | 589   | 570   | 360   | 597   | 594   | 585   | 597   | 592   | 600   | 596   | 596  | 599   | 593   | 599   | 595  | 599  |

<sup>\*</sup>*p* < .05. \*\**p* < .01.

*important*) and "How much do you like doing . . . ?" (1 = not at all, 2 = somewhat, 3 = very much). Internal consistency was high for math ( $\alpha$  = .79), science ( $\alpha$  = .82), computers ( $\alpha$  = .83), and sports ( $\alpha$  = .89).

Self-reported grades. Participants were asked to circle their letter grade (ranging from A+ to below C-) in different academic subjects. These were converted to numeric scores ranging from 1 = below C- to 10 = A+. In our analyses, we used math, science, and computer grades.

Self-reported sport participation. The participants were asked to indicate whether or not (no or yes) they had been a member of any sport teams inside or outside of school during the last 12 months. Among the sample, 44% of the girls reported belonging to a sport team.

Gender typicality, gender contentedness, and felt pressure. Gender typicality, gender contentedness, and felt pressure are three measures in Egan and Perry's (2001) gender identity model that we adapted to assess participants' evaluations of their social identity and perceived gender-typing pressures. Gender typicality was measured using seven items that ask the person to evaluate how typical she considers herself compared to other girls (e.g., "I believe that I am a typical girl at my school." Following Smith & Leaper's, 2006, recommendation, we added the phrase "at my school" to Egan and Perry's items to clarify the referent group.) Gender contentedness was assessed using five items that asked the person how content she is with the norms associated with being a girl ("I feel cheated that there are some things I'm not supposed to do because I'm a girl"). Felt pressure refers to perceived pressures to conform to traditional gender roles. Participants rated eight items that assess perceived pressures from parents (e.g., "My parents would be upset if I wanted to learn an activity that only boys usually do") and peers (e.g., "I sometimes feel pressure from the girls I know to act 'like a girl'"). Internal consistency was good for all three scales (minimum  $\alpha = .84$ ).

Gender-egalitarian attitudes. Galambos et al.'s (1985) Attitudes Toward Women Scale for adolescents was adapted to assess participants' gender-egalitarian versus traditional attitudes. Participants rated their level of agreement to 10 statements regarding the relative roles and responsibilities for girls/women and boys/men (e.g., "If both husband and wife have jobs, the husband should do an equal share of the housework and childcare, such as washing dishes, doing laundry, changing diapers, and cooking"). The wording of some items was slightly modified for clarity. Internal consistency was within an acceptable range ( $\alpha = .67$ ).

*Exposure to feminism.* In the survey, the reader was provided with a definition of feminism as follows:

As defined in the dictionary, feminism refers to the belief in equality for women and men. Feminists believe in equality, and point to ways that society and certain individuals treat girls and women in unfair ways. For example, sometimes women are turned down for jobs or girls aren't allowed to play certain sports—because they are female. Another example is when girls and women get unwanted sexual comments. When discrimination like this occurs, it is known as sexism (Original emphasis).

Participants were subsequently asked, "Is the above definition of feminism similar to the one you expected?" (no, somewhat, or yes). Based on items used by Williams and Wittig (1997), the participants were subsequently asked if they had "learned about feminism or the women's rights movement" from the following sources: (a) books, magazines, or other forms of literature; (b) TV, films, the radio, or the Internet; (c) mother; (d) anyone else in family; (e) teachers or coaches; and (f) friends/classmates. For these questions, respondents had the option of answering either no or yes. Internal consistency was acceptable ( $\alpha = .74$ ). For the regression analyses, two scores were computed by summing the number of yes responses for exposure to feminism from the media (range = 0 - 2) and exposure to feminism from known persons (range = 0-4). Finally, after the above questions, participants were asked to rate on a 4-point scale their agreement to the following statement: "I personally consider myself a feminist."

Personal experiences with sexism. Participants were asked about their experiences with sexism. We adapted Klonoff and Landrine's (1995) Schedule of Sexist Events for use with our adolescent sample. Separate sections asked about girls' experiences with sexual harassment; with discouraging comments about their academic achievement in science, math, or computers; and with discouraging comments about their abilities in sports. In each section, an explanation was first provided of the manner that the particular form of sexism can take.

In the section entitled "Sexual Harassment: Offensive Comments and Behaviors," the following was stated:

Some people treat girls in *sexist* ways by saying or doing offensive things. This includes teasing a girl about her appearance, making an offensive sexual comment, telling a joke that is degrading about women, calling her a nasty name, or giving her

unwanted physical contact. Some girls think these things have happened to them. Other girls don't think these things have happened to them. We want to know about your own experience. Have you experienced any of the following types of sexual harassment because you are female? (Original emphasis).

Participants subsequently rated the following using a 4-point scale (1 = no, 2 = yes—once or twice, 3 = yes—a*few times*, 4 = yes—*several times*): (a) called you a nasty or demeaning name related to being a girl, (b) was teased about your appearance related to being a girl, (c) was told an embarrassing/mean joke about girls/ women, (d) received inappropriate or unwanted romantic attention by a male, (e) received unwanted physical contact by a male, or (f) teased, bullied, or threatened with harm by a male. Internal consistency was acceptable ( $\alpha = .78$ ).

There were separate sections entitled "People's Expectations of You in Sports" and "People's Expectations of You in School." The following description was presented in the sports section (with the alternate phrases for the school section indicated in brackets):

Some people think that girls are not as good as boys in certain areas. They may make sexist statements that "put-down" girls (or women) in their abilities. One area where this might occur is sports [math, science, or computers]. Some girls think these things have happened to them. Other girls don't think these things have happened to them. We want to know about your own experience. Have you ever noticed any of the following persons make a discouraging statement or express a negative view to you about your abilities in sports [either math, science, or computers] because you are female? (Original emphasis)

Using the same 4-point scale previously described, participants rated the following people: (a) teachers/ coaches, (b) mother, (c) father, (d) close female friends or sisters, (e) close male friends or brothers, (f) other family members, (g) neighbors, (h) other girls, (i) other boys, and (j) anyone else not described. Good internal consistency was obtained on these items for both athletic and academic sexism ( $\alpha = .85$  for each). Due to time constraints, the questions on athletic sexism were not included in the survey at one of our data collection sites (n = 93). This group of girls was similar in age (M = 15.01, SD = 1.31) to the rest of the sample (M = 15.16, SD = 1.45). However, the sample without ratings for athletic sexism and the rest of the sample differed in ethnic background. The former

sample was composed of proportionally more girls from White/European American backgrounds than the latter sample (73% vs. 13%, respectively); therefore, the sample with ratings for athletic sexism included proportionally fewer girls from other ethnic backgrounds than the rest of the sample (Latina: 14% vs. 56%, African American: 1% vs. 11%, Asian American: 2% vs. 9%, Other: 10% vs. 11%, respectively). Nonetheless, there was still a high number of White/ European American girls with complete data (n = 67), and ethnic background was not a significant factor in accounting for girls' perceptions of athletic sexism (described in the Results section).

#### Results

Overview of Analyses

The analyses are divided into two sections. In the first section, adolescents' reported experiences with sexism and knowledge of feminism are documented. These analyses present descriptive statistics summarizing girls' reported experiences with personal sexism (in the form of sexual harassment, academic sexism, and athletic sexism) and amount of exposure to feminism. Afterward, we examined if and how SES, ethnicity, achievement-related factors, age, social factors, and individual factors predicted reported experiences of sexism by using hierarchical multiple regressions.

### Descriptive Statistics

Bivariate correlations, means, and standard deviations are presented in Table 1. As seen in the table, the various forms of sexism were significantly correlated with one another: Sexual harassment was associated with both academic sexism (r = .33) and athletic sexism (r = .46). Similarly, perceived academic and athletic sexism were related (r = .59).

Reports of each type of sexism were common across the girls in our sample. Most notably, sexual harassment was a nearly universal experience for adolescent girls. Specifically, 90% of girls reported experiencing at least one form of sexual harassment at least once. As seen in Table 2, a majority of girls reported experiencing (i.e., rated at least *once* or *twice*) four of the six types of sexual harassment. The most common was "received unwanted or inappropriate romantic attention by a male" (67%), followed by "called a nasty or demeaning name related to being a girl" (62%), "teased about appearance" (58%), and "given unwanted physical contact" (51%). In addition, a sizable minority of girls reported being "told an embarrassing/mean joke about girls/women" (37%)

Table 2
Percentage of Girls Who Report Experiencing Personal Sexism

|   | At least once | Once or twice | A few times | Several times | Never |
|---|---------------|---------------|-------------|---------------|-------|
| Sexual harassment                               |               |               |             |               |       |
| Given unwanted/inappropriate romantic attention | 66.5          | 21.3          | 18.6        | 26.6          | 33.5  |
| Called nasty or demeaning name                  | 62.1          | 30.6          | 18.6        | 12.9          | 37.9  |
| Teased about your appearance                    | 58.1          | 29.8          | 16.0        | 12.3          | 41.9  |
| Given unwanted physical contact                 | 51.1          | 23.3          | 13.1        | 14.6          | 48.9  |
| Told an embarrassing/mean joke                  | 67.1          | 33.8          | 18.6        | 14.7          | 32.9  |
| Teased, bullied, threatened by male             | 28.4          | 17.5          | 5.7         | 5.2           | 71.6  |
| Discouragement in academics                     |               |               |             |               |       |
| By teachers/coaches                             | 22.8          | 14.4          | 6.0         | 2.5           | 77.2  |
| By father                                       | 15.2          | 7.2           | 4.3         | 3.7           | 84.8  |
| By mother                                       | 12.2          | 6.9           | 4.3         | 1.0           | 87.8  |
| By close male friends/brothers                  | 24.8          | 16.6          | 6.0         | 2.3           | 75.2  |
| By other boys                                   | 31.8          | 20.2          | 7.0         | 4.6           | 68.2  |
| By close female friends/sisters                 | 18.4          | 12.4          | 4.0         | 2.0           | 81.6  |
| By other girls                                  | 21.5          | 11.9          | 6.1         | 3.5           | 78.5  |
| By other family members                         | 16.5          | 10.4          | 3.5         | 2.6           | 83.5  |
| By neighbors                                    | 10.5          | 6.8           | 2.8         | 1.0           | 89.5  |
| Discouragement in athletics                     |               |               |             |               |       |
| By teachers/coaches                             | 27.9          | 17.8          | 7.8         | 2.3           | 72.1  |
| By father                                       | 30.0          | 16.4          | 8.0         | 5.6           | 70.0  |
| By mother                                       | 24.7          | 13.7          | 7.5         | 3.4           | 75.3  |
| By close male friends/brothers                  | 44.8          | 28.7          | 11.0        | 5.1           | 55.2  |
| By other boys                                   | 54.1          | 29.6          | 15.1        | 9.4           | 45.9  |
| By close female friends/sisters                 | 31.1          | 22.1          | 6.6         | 2.3           | 68.9  |
| By other girls                                  | 37.8          | 24.3          | 9.8         | 3.7           | 62.2  |
| By other family members                         | 31.4          | 19.4          | 8.9         | 3.2           | 68.6  |
| By neighbors                                    | 21.0          | 14.2          | 5.3         | 1.6           | 79.0  |

Note. The "at least once" column is a sum of the "once or twice," "a few times," and "several times" columns.

or being "teased, bullied, or threatened with harm by a male" (28%). To compare the frequency of each type of harassment, mean frequency ratings were analyzed and paired *t* tests were performed. Unwanted/inappropriate romantic attention occurred significantly more frequently than all other forms of sexual harassment (see Table 3).

Adolescents were also asked whether they had experienced academic sexism (in math, science, or computers) or athletic sexism in the form of discouraging statements about their abilities. As seen in Table 2, results indicated that such statements were noticed but were less common among adolescent girls than were instances of sexual harassment. Specifically, 52% of girls reported hearing at least one discouraging statement about their math, science, and computer abilities and 76% of girls reported hearing such statements about their athletic ability.

When the source of academic sexism was examined, close male friends and brothers (25%) and other boys (32%) were the most common sources of discouraging comments about girls' academic abilities.

These sources were followed by teachers/coaches (23%), close female friends or sisters (18%), and other girls (22%). Less common sources were fathers (15%), mothers (12%), other family members (17%), and neighbors (11%). We additionally compared mean frequency ratings using paired t tests (see Table 4), although we limited these tests to fathers, mothers, teachers/coaches, male peers (average ratings of close

Table 3
Mean Ratings for Types of Sexual Harassment

| Type of harassment          | M                 | SD   |
|-----------------------------|-------------------|------|
| Unwanted romantic attention | 2.38 <sub>a</sub> | 1.20 |
| Embarrassing or mean joke   | $2.15_{b}$        | 1.04 |
| Nasty or demeaning name     | $2.07_{c}$        | 1.02 |
| Teased about appearance     | $1.99_{c}$        | 1.04 |
| Unwanted physical contact   | $1.94_{c}$        | 1.10 |
| Threatened by male          | $1.45_{\rm d}$    | 0.83 |

*Note.* Ratings ranged from 1 (*never*) to 4 (*several times*). Means with different subscripts are significantly different (p < .05).

Table 4
Mean Ratings for Sources of Discouraging Comments in Academics and
Athletics

|                  | Academi           | c sexism | Athletic sexism   |      |  |  |
|------------------|-------------------|----------|-------------------|------|--|--|
| Source           | М                 | SD       | M                 | SD   |  |  |
| Male peers       | 1.42 <sub>a</sub> | 0.67     | 1.77 <sub>a</sub> | 0.82 |  |  |
| Female peers     | $1.30_{bc}$       | 0.62     | $1.50_{\rm b}$    | 0.68 |  |  |
| Teachers/coaches | $1.34_{\rm b}$    | 0.71     | $1.42_{bc}$       | 0.75 |  |  |
| Father           | $1.27_{c}$        | 0.72     | $1.50_{\rm b}$    | 0.88 |  |  |
| Mother           | $1.19_{d}$        | 0.55     | $1.39_{c}$        | 0.78 |  |  |

*Note.* Ratings ranged from 1 (*never*) to 4 (*several times*). Means in the same rows with different subscripts are significantly different (p < .05). The male peers category is an average of the close male friends/brothers and other boys categories, and the female peers category is an average of the close female friends/sisters and other girls categories.

male friends/brothers and other boys), and female peers (average ratings of close female friends/brothers and other girls). As seen in Table 4, male peers were the most frequent source of academic discrimination and were followed by teachers and female peers. Fathers and mothers were less frequent sources.

Somewhat similar patterns were seen regarding the source of athletic sexism. Close male friends or brothers (45%) and other male peers (54%) were most common perpetrators of discouraging comments about girls' athletic abilities. These sources were followed by close female friends or sisters (31%), other girls (38%), fathers (30%), other family members (31%), teachers/coaches (28%), mothers (25%), and neighbors (21%). We also compared mean frequency ratings for fathers, mothers, teachers/coaches, male peers, and female peers. As summarized in Table 4, paired t tests indicated athletic sexism was significantly more frequently perpetrated by male peers than other sources and then followed by fathers and female peers. Athletic sexism was attributed less frequently to mothers.

Next, we were interested in whether adolescent girls had learned about feminism and the women's rights movement. A large majority of adolescent girls reported learning about feminism from either some form of media or someone they knew. Specifically, 72% of girls learned about feminism from books or magazines and 66% learned about feminism from TV, movies, or the Internet. More than half (56%) of the girls learned about feminism from someone that they knew. Most frequently, it was their teacher (72%), followed by friends (50%), mothers (47%), and other family members (40%). One fifth (21%) of girls reported learning about feminism from all of these

people. Taken together, 80% of adolescent girls learned about feminism from at least one media source and 86% learned about it from at least one person they knew.

Finally, we inquired how well girls understood the definition of feminism as well as whether they considered themselves feminists. After reading an explanation of feminism in the survey, three fourths of the girls indicated at least some familiarity with the definition (38% yes and 36% somewhat), whereas one fourth apparently were surprised (26% no). When subsequently asked to rate their agreement with the statement, "I personally consider myself a feminist," three fourths of the girls agreed (28% agree strongly and 46% agree somewhat vs. 12% disagree strongly and 14% disagree somewhat).

Hierarchical Regression Analyses: Predictors of Perceived Personal Sexism

To assess if and how individual and social factors contribute to adolescents' reported experiences of sexism, we employed hierarchical multiple regression analyses. Separate tests were performed with (a) experiences with sexual harassment, (b) experiences with academic sexism, and (c) experiences with athletic sexism. A multiple step model was examined to examine main effects and moderating effects while controlling for background factors.

In the first step, the following variables were entered: mother's and father's average education level and participants' ethnic background. For the latter, we dummy coded (1 = yes, 0 = no) four categories of ethnic background (Latin American, White European American, African American, Asian American). Also, when analyzing either academic or athletic sexism, we included factors related to achievement in the first step. With academic sexism, we entered math/science/computer grade and math/science/computer self-evaluation (i.e., selfefficacy and value). With athletic sexism, we entered sports participation (yes = 1, no = 0) and athletic selfevaluation. In the second step, adolescents' age (in years) was entered. In the third step, the socialization variables were entered. These included exposure to feminism (i.e., learning feminism from media and learning feminism from persons) and perceived gender-conformity pressures (i.e., felt conformity pressure from peers and felt conformity pressure from parents). Next, in the fourth step, the following three individual variables were entered: felt gender typicality, gender-role contentedness, and egalitarian gender-role attitudes. Finally, in the fifth step, twoway interactions between socialization variables and individual variables were entered.

To reduce the risk of multicollinearity, all nondichotomous variables were centered around their means by subtracting each mean from each variable (Aiken & West, 1991). Also, we replaced missing values with means when running the analyses using SPSS.

Sexual harassment. The model was significant at the first step, F(5, 594) = 3.66,  $R^2 = .03$ , p < .01, and remained significant across all steps, final step: F(25, 574) = 5.41,  $R^2$  = .19, p < .01. As summarized in Table 5, each of the first four steps in the regression significantly contributed to the model; however, the fifth step including the interaction effects did not significantly add explained variance. Therefore, we interpreted the model in the fourth step, F(13, 586) =9.17,  $R^2 = .17$ , p < .01. Once all variables were taken into account in the final model (Step 4), family SES (i.e., parents' education level), and ethnicity remained significant background influences. Sexual harassment was reported less often among girls from higher-SES families. Also, Latinas and Asian American girls reported less sexual harassment than girls from other ethnic backgrounds. Participants' age was also significant. Older girls reported more experiences with sexual harassment than younger girls.

Among the socialization influences, learning about feminism from the media was significant and parent pressure for gender conformity was marginally significant (p = .06). As predicted, girls reported more

Table 5 Final Model of Hierarchical Regression Analyses for Reported Experiences With Sexual Harassment

|                                 | В   | SE B | β               | $R^2$ | F change<br>in R <sup>2</sup> |
|---------------------------------|-----|------|-----------------|-------|-------------------------------|
| Step 1: Background variables    |     |      |                 | .03   | 3.96**                        |
| Parent education                | 05  | .02  | 13*             |       |                               |
| Ethnicity: African American     | .00 | .13  | .00             |       |                               |
| Ethnicity: Asian                | 31  | .13  | 11*             |       |                               |
| Ethnicity: Latina               | 26  | .11  | 17*             |       |                               |
| Ethnicity: White                | 09  | .11  | 05              |       |                               |
| Step 2: Age                     |     |      |                 | .07   | 23.47**                       |
| Age                             | .08 | .02  | .15**           |       |                               |
| Step 3: Socialization variables |     |      |                 | .12   | 8.68**                        |
| Peer pressure                   | .07 | .05  | .06             |       |                               |
| Parent pressure                 | .08 | .04  | $.09^{\dagger}$ |       |                               |
| Learn feminism: media           | .29 | .08  | .16**           |       |                               |
| Learn feminism: persons         | 02  | .10  | 01              |       |                               |
| Step 4: Individual variables    |     |      |                 | .17   | 11.34**                       |
| Typicality                      | 13  | .05  | 11**            |       |                               |
| Contentedness                   | 14  | .05  | 12**            |       |                               |
| Egalitarian                     | .14 | .08  | $.08^{\dagger}$ |       |                               |
| Step 5: Two-way interactions    |     |      |                 | .19   | 1.28                          |

*Note.* Coefficients for each variable reflect values at Step 4.  $^{\dagger}p < .10. *p < .05. **p < .01.$ 

experiences with sexual harassment if their exposure to feminism in the media was high or if they felt high levels of parent pressure to conform to gender norms.

Finally, the individual factors explained a significant amount of variance. As predicted, girls who felt less typical for their gender reported experiencing more sexual harassment than girls who felt more typical. Similarly, girls who were low in gender-role contentedness reported more experiences with sexual harassment. Further, there was a nearly significant trend (p = .07) in which girls with more gender-egalitarian attitudes reported more sexual harassment.

*Academic sexism.* The model was significant at the first step, F(11, 588) = 2.54,  $R^2 = .05$ , p < .01, and remained significant across all steps: final step, F(31, 568) = 4.17,  $R^2 = .19$ , p < .01. As shown in Table 6, all steps in the hierarchical regression significantly

Table 6 Final Model of Hierarchical Regression Analyses for Reported Experiences With Academic Sexism

|                                   | В   | SE B | β               | $R^2$ | F change<br>in R <sup>2</sup> |
|-----------------------------------|-----|------|-----------------|-------|-------------------------------|
| Step 1: Background variables      |     |      |                 | .04   | 2.54**                        |
| Parent education                  | 01  | .02  | 05              |       |                               |
| Ethnicity: African American       | 05  | .08  | 03              |       |                               |
| Ethnicity: Asian                  | .01 | .09  | .01             |       |                               |
| Ethnicity: Latina                 | 06  | .07  | 06              |       |                               |
| Ethnicity: White                  | .05 | .07  | .04             |       |                               |
| Science grade                     | .00 | .01  | 02              |       |                               |
| Math grade                        | .00 | .01  | .00             |       |                               |
| Computer grade                    | 02  | .01  | $08^{\dagger}$  |       |                               |
| Science evaluation                | 01  | .05  | 01              |       |                               |
| Math evaluation                   | 11  | .05  | 12*             |       |                               |
| Computer evaluation               | .05 | .04  | .05             |       |                               |
| Step 2: Age                       |     |      |                 | .05   | 5.11*                         |
| Age                               | .01 | .02  | .04             |       |                               |
| Step 3: Socialization variables   |     |      |                 | .11   | 9.69**                        |
| Peer pressure                     | .06 | .04  | .08             |       |                               |
| Parent pressure                   | .05 | .03  | $.08^{\dagger}$ |       |                               |
| Learn feminism: media             | .08 | .05  | .07             |       |                               |
| Learn feminism: persons           | .11 | .07  | $.08^{\dagger}$ |       |                               |
| Step 4: Individual variables      |     |      |                 | .14   | 6.54**                        |
| Typicality                        | 09  | .03  | 13*             |       |                               |
| Contentedness                     | 06  | .03  | $08^{\dagger}$  |       |                               |
| Egalitarian                       | 18  | .05  | 16*             |       |                               |
| Step 5: Two-way interactions      |     |      |                 | .19   | 2.55**                        |
| Egalitarian × Learn Media         | 34  | .14  | 12**            |       |                               |
| Egalitarian × Learn Persons       | .33 | .16  | .10*            |       |                               |
| Egalitarian × Peer Pressure       | 15  | .08  | 10*             |       |                               |
| Typicality $\times$ Peer Pressure | 21  | .05  | 20**            |       |                               |

*Note.* Coefficients for each variable reflect values entered at Step 5. Only significant or nearly significant interactions are reported (for all coefficients, contact the authors).

 $<sup>^{\</sup>dagger}p < .10. *p < .05. **p < .01.$ 

contributed to the model when analyzing girls' reported experiences with discouraging comments about their math, science, or computer abilities. The only significant background factor that remained significant in the final model was girls' self-evaluation in math. Girls who reported more academic sexism evaluated math less positively (in self-efficacy and value) than did other girls. Although age significantly contributed to explained variance in the model when it was initially entered, the variable was no longer significant in the final model once other factors were taken into account. The socialization factors also explained significant amounts of variance when they were added but none of them were significant in the final step.

The individual factors did have significant influences. As predicted, girls who were low in perceived gender typicality reported more academic sexism than other girls; however, counter to prediction, girls who were low in gender-egalitarian attitudes also reported more academic sexism than others. In addition, there was a nearly significant (p = .06) effect for gender-role contentedness; as expected, girls who were less content with gender roles reported more academic sexism than girls high in contentedness.

There were four significant two-way interactions between individual and social factors. There was a significant interaction between gender-egalitarian attitudes and learning feminism from other people. Specifically, the main effect of gender-egalitarian attitudes was moderated by exposure to feminism from known persons. To explore this interaction, girls who had little (lower third), moderate (middle third), and high (upper third) exposure to feminism from others were analyzed separately. Correlation analyses revealed that gender-egalitarian attitudes were negatively related to reported academic sexism (as seen in the main effect reported earlier) particularly among girls who had little (r = -.19, p < .05) to moderate (r =-.17, p < .05) exposure to feminism from others. In contrast, there was no relationship between their attitudes and reported experiences with academic sexism among girls with high exposure to feminism from others (r = -.07, ns).

The impact of gender-egalitarian attitudes was also moderated by gender conformity from peers. To explore this interaction, girls who felt little (lower third), moderate (middle third), and high (upper third) peer pressure to conform were analyzed separately. Among girls who felt little peer pressure (r =-.17, p < .05) or high peer pressure (r = -.17, p < .05), gender-egalitarian attitudes were negatively related to reported academic sexism (consistent with the main effect reported above). In contrast, among girls

with moderate peer pressure to conform, there was no relationship between their attitudes and reported experiences with academic sexism (r = -.09, ns). Taken together with previous findings, there was no relationship between gender-egalitarian attitudes and perceptions of academic sexism if girls knew feminists or felt moderately pressured by peers to

A third significant interaction involved genderegalitarian attitudes and learning feminism from the media. Specifically, exposure to feminism from the media related to perceptions of academic sexism depending on girls' gender-egalitarian attitudes. To explore this interaction, girls who were low, moderate, and high in egalitarian attitudes were analyzed separately. Among girls who were either low in egalitarian attitudes (r = .10, ns) or high in egalitarian attitudes (r = .11, ns), media exposure to feminism was unrelated to reports of academic sexism. In contrast, among girls who held moderately egalitarian attitudes, the more media exposure they had to feminism, the more they reported academic sexism (r = .18, p < .05).

Finally, an interaction between perceived gender typicality and felt peer pressure was indicated. To disentangle this effect, girls with low, moderate, and high gender typicality were analyzed separately. Results indicated that peer pressure to conform was associated with increased reported experiences with academic sexism only among girls who felt low (r =.33, p < .01) or moderate (r = .18, p < .01) in gender typicality. For girls who perceived themselves as high in gender typicality, there was no significant relationship between peer pressure and academic sexism (r =-.01, ns).

Athletic sexism. In the next set of analyses, we tested predictors of girls' reported experiences hearing discouraging comments about their athletic abilities. The model was significant at the first step, F(7, $(592) = 2.39, R^2 = .03, p < .05$ , and remained significant across all steps: final step, F(27, 572) = 5.71,  $R^2 = .18$ , p < .01. All steps in the hierarchical regression significantly added explained variance (see Table 7). However, none of the factors from the first two steps were significant in the final model. In other words, although background factors and age were initially significant predictors of reported athletic sexism, their influences were not apparent after other factors were included. Among the socialization factors, significant main effects occurred for parent pressure and learning feminism from the media. In addition, there was a nearly significant effect (p = .06) for peer pressure. All these factors were positively related to reported athletic sexism. As hypothesized, the more

Table 7
Final Model of Hierarchical Regression Analyses for Reported Experiences
With Athletic Sexism

|                                   | В   | SE B | β               | $R^2$ | F change<br>in R <sup>2</sup> |
|-----------------------------------|-----|------|-----------------|-------|-------------------------------|
| Step 1: Background variables      |     |      |                 | .03   | 2.39*                         |
| Parent education                  | 01  | .01  | 04              |       |                               |
| Ethnicity: African American       | 11  | .08  | 07              |       |                               |
| Ethnicity: Asian                  | 14  | .08  | $08^{\dagger}$  |       |                               |
| Ethnicity: Latina                 | 01  | .07  | 01              |       |                               |
| Ethnicity: White                  | 03  | .07  | 02              |       |                               |
| Sport participation               | .01 | .04  | .01             |       |                               |
| Athletic self-evaluation          | .01 | .03  | .01             |       |                               |
| Step 2: Age                       |     |      |                 | .04   | 7.59**                        |
| Age                               | .02 | .01  | .05             |       |                               |
| Step 3: Socialization variables   |     |      |                 | .15   | 19.47**                       |
| Peer pressure                     | .06 | .03  | $.09^{\dagger}$ |       |                               |
| Parent pressure                   | .10 | .03  | .18**           |       |                               |
| Learn feminism: media             | .15 | .05  | .13**           |       |                               |
| Learn feminism: persons           | .03 | .06  | .02             |       |                               |
| Step 4: Individual variables      |     |      |                 | .18   | 6.17**                        |
| Typicality                        | 10  | .03  | 14**            |       |                               |
| Contentedness                     | 06  | .03  | 09*             |       |                               |
| Egalitarian                       | 04  | .05  | 04              |       |                               |
| Step 5: Two-way interactions      |     |      |                 | .21   | 2.06*                         |
| Egalitarian × Learn Persons       | .36 | .15  | .11*            |       |                               |
| Contentedness × Learn Media       | 16  | .09  | $09^{\dagger}$  |       |                               |
| Typicality $\times$ Peer Pressure | 15  | .05  | 14**            |       |                               |

*Note.* Coefficients for each variable reflect values entered at Step 5. Only significant or nearly significant interactions are reported (for all coefficients, contact the authors).  $^{\dagger}p < .10. *p < .05. **p < .01.$ 

girls learned about feminism from the media, and the more conformity pressure they felt from their parents and peers, the more they reported experiences with athletic sexism. Among the individual variables, both gender typicality and gender-role contentedness negatively predicted athletic sexism. Girls who were low in perceived gender typicality or low in contentedness with gender roles reported more athletic sexism than other girls, as expected.

Two significant interactions and one nearly significant interaction appeared in the final model with perceived athletic sexism. The first significant interaction was between perceived gender typicality and peer pressure to conform. To disentangle this effect, girls with low (lower third), moderate (middle third), and high (upper third) gender typicality were analyzed separately. Similar to reported academic sexism, peer pressure to conform was associated with increased reported experiences with athletic sexism only among girls who felt low (r = .41, p < .01) or moderate (r = .27, p < .01) in gender typicality. For

girls who perceived themselves as high in gender typicality, there was no significant relationship between peer pressure and athletic sexism (r = .08, ns). See Figure 1.

In the second significant interaction, results indicated that exposure to feminism from known persons was related to perceptions of athletic sexism, depending on girls' gender-egalitarian attitudes. Girls who were low, moderate, and high in egalitarian attitudes were analyzed separately. Bivariate correlation tests indicated, among girls who were either low in egalitarian attitudes (r = .02, ns) or high in egalitarian attitudes (r = .10, ns), exposure to feminism from known people was unrelated to reports of athletic sexism. In contrast, among girls who held moderately egalitarian attitudes, interpersonal exposure to feminism was positively related to reported athletic sexism (r = .13, p < .05). This finding parallels the interaction between media exposure to feminism and gender-egalitarian attitudes in predicting reported academic sexism.

Finally, there was a nearly significant (p = .06) interaction between gender-role contentedness and learning feminism from the media. To explore this interaction, girls who were low, moderate, and high in gender-role contentedness were analyzed separately. Among girls who felt either low (r = .27, p < .01) to moderate (r = .20, p < .05) in contentedness about their gender role, exposure to feminism in the media was positively associated with reported experiences with athletic sexism. In contrast, among girls who felt very content about their gender role, exposure to feminism was unrelated to reports of athletic sexism (r = .18, ns).

#### Discussion

Our discussion begins with a consideration of the overall trends regarding girls' perceptions of personal

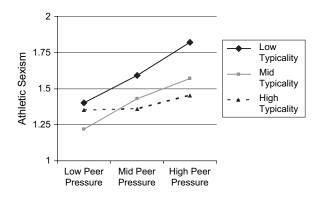


Figure 1. Interaction between gender typicality and felt peer pressure to conform on reported experiences with athletic sexism.

sexism. Afterward, we discuss the findings from the analyses testing predictors of girls' experiences regarding sexism. In closing, we chart some directions for future research.

Overall Trends in Girls' Perceptions of Personal Sexism

Girls and women have made dramatic strides toward gender equality in the United States over the years. Role models and opportunities for girls in science, technology, and sports exist today that were not available 50 years ago. Also, sexual harassment violates Title IX legislation in the United States. Despite these advances, our results show that most girls continue to experience various forms of sexism.

Sexual harassment. The vast majority (90%) of girls experienced sexual harassment at least once. Relatively few girls reported sexual harassment as having occurred several times. Specific forms that were most frequent included inappropriate and unwanted romantic attention, demeaning gender-related comments, appearance-related teasing, and unwanted physical contact. These rates of harassment are comparable to previous surveys of adolescent girls in the United States (AAUW, 2001; Fineran & Bennett, 1999; Holt & Espelage, 2003; Timmerman, 2003).

When sexual harassment frequently occurs in adolescent girls' lives, it can have negative repercussions on their developing self-esteem, body image, adjustment, and beliefs about others (see AAUW, 2001; Felix & McMahon, 2006; Goldstein et al., 2007; Hand & Sanchez, 2000; Harned & Fitzgerald, 2002; Holt & Espelage, 2003). Many girls come to expect demeaning behaviors as normal in heterosexual relationships, and they may be at risk for dysfunctional and abusive relationships in adulthood (see Larkin & Popaleni, 1994; Leaper & Anderson, 1997).

Academic and athletic sexism. Half of the girls in our sample reported hearing discouraging comments about their abilities in science, math, or computers. These are academic domains where gender inequities favoring boys and men continue to exist (see Hyde & Kling, 2001; Leaper & Friedman, 2007, for reviews). As a consequence of girls' experiences with gender bias, their motivation to continue in math, science, and computer technology may be hindered (see Bussey & Bandura, 1999; Hyde & Kling, 2001; Leaper & Friedman, 2007; Wigfield & Eccles, 2002). Besides the personal costs for these girls, our society also suffers when we lose potentially talented individuals in these increasingly important fields (Bussey & Bandura, 1999).

Reported sexism was even more likely in sports than academics. Three fourths of girls indicated they have experienced discouraging comments about their sport involvement and athletic abilities. Dramatic increases in American girls' athletic participation has occurred since the passage of Title IX of the U.S. Civil Rights Act over 30 years ago. Nonetheless, many parents and peers continue to view sport as a predominantly masculine domain (see Leaper & Friedman, 2007). When discouraged from participating in sports, girls are deprived of the potential benefits that athletics can confer on their self-esteem, body image, and personal agency (Daniels & Leaper, 2006; Marsh & Kleitman, 2003).

Although experiences with athletic and academic sexism were shared by most girls, we should note that they generally were not frequently occurring events in their lives. In reports of both academic and athletic sexism, the modal response was once or twice as opposed to a few times or several times (or never). Thus, experiences with sexism were pervasive in one sense (i.e., experienced by most girls) but not another (i.e., experienced only about once or twice). The occasional sexist comment about girls' abilities may reflect the more subtle form of sexism that tends to be prevalent among adults (Swim & Cohen, 1997). Yet, even sporadic comments may affect girls' self-concepts and attitudes. Moreover, as discussed later, the incidence of sexist experiences may be underreported.

*Perpetrators of sexism.* It is notable that male peers were the most common perpetrators of academic and athletic sexism. Because adolescent girls are often concerned with heterosexual attractiveness, boys' disapproval of girls' athleticism or technical prowess can create conflicting motives for girls (Guillet, Sarrazin, & Fontayne, 2000). As a consequence, some girls may downplay their competencies and interests in athletics and academic fields such as math or science and thereby diminish their subsequent achievement (Bell, 1989; Bussey & Bandura, 1999; Daniels & Leaper, 2006; Eccles & Wigfield, 2002; Guillet et al., 2000; Stake & Nickens, 2005). In this manner, gender inequalities are perpetuated.

Besides male peers, there were other frequently nominated perpetrators of academic and athletic sexism. Female peers, another common source, may be particularly important because research tells us that same-gender peers are effective agents of gender socialization (Bigler & Liben, 2007; Leaper, 1994; Maccoby, 1998). Second, teachers were among the most common sources of negative comments about girls' academic abilities, paralleling prior reports that some teachers perpetuate gender inequities in the classroom (see AAUW, 1998; Basow, 2004; Jones & Dindia, 2004; Meece & Scantlebury, 2006). Finally, parents were implicated with fathers being nominated

more often than mothers. Gender typing is more likely among fathers than mothers—both in general (see Leaper, 2002) as well as specifically in the socialization of traditionally male-dominated achievements (Tenenbaum & Leaper, 2003). Prior research documents the importance of parents' support of girls' later academic and athletic achievement (see Leaper, 2002; Wigfield & Eccles, 2002).

Possible Influences on Girls' Perceptions of Personal Sexism

Our regression analyses revealed that a combination of social and individual factors significantly predicted girls' perceived experiences with sexual harassment, academic sexism, and athletic sexism. Consistent with Brown and Bigler's (2005) developmental model of perceptions of discrimination as well as our hypotheses, many of the predictor variables had similar influences on the different forms of perceived sexism. Accordingly, our discussion is organized around each set of predictors outlined in our Introduction and Analyses.

Background factors. Results showed that SES and ethnicity were significant predictors of sexual harassment but not academic or athletic sexism. Specifically, relatively higher-SES girls reported fewer instances of sexual harassment than did lower-SES girls. Also, Latina and Asian American girls reported less sexual harassment than did girls from other ethnic groups. Given our survey method, it is unclear whether there were group differences in either the actual incidence of sexism, the likelihood of perceiving sexism, or the likelihood of reporting sexism. Differences related to ethnic background in reported sexism have been found among adults. For example, researchers have observed that sexual harassment was tolerated more among Asian American women than other ethnic groups (Kennedy & Gorzalka, 2002) and that Latina women were more likely to use denial or avoidant coping responses to sexual harassment than were White European American women (Wasti & Cortina, 2002). These may be cultural trends that emerge during adolescence; however, future research should explore these possible relations more directly.

When examining academic and athletic sexism, we additionally controlled for participants' achievement and self-evaluations. Results indicated that girls' evaluations of math were related to their perceptions of academic sexism, such that girls who reported more academic sexism evaluated math less positively in self-efficacy and perceived value. This association suggests (a) girls who experience discouraging comments in math disengage from the subject by devalu-

ing it, (b) girls' positive self-evaluations of math act as a buffer that helps them downplay discouraging comments, and/or (3) girls' self-confidence about math somehow makes others less likely to make sexist comments. These possibilities need to be tested in future studies.

Age. As predicted, all three forms of sexism were more likely among older than younger girls. Agerelated increases in girls' hearing negative comments about their abilities dovetail with prior reports showing declines in girls' participation in sports and their involvement in math, science, and computer classes during the course of adolescence (see Leaper & Friedman, 2007). Although age was positively correlated with reported academic and athletic sexism, its influence was eclipsed when other factors were taken into account. Thus, changes in socialization and individual differences may underlie age-related changes in perceptions of academic and athletic sexism. With sexual harassment, however, age remained a significant main effect despite the additional factors. Previous research suggests rates of sexual harassment become more likely with the onset of puberty and heterosexual relations during late adolescence (AAUW, 2001; Goldstein et al., 2007; McMaster et al., 2002; Pepler et al., 2006). Thus, when considering sexual harassment, age may serve as a proxy for physical – maturational changes that were not captured by the social and psychological constructs examined here.

In addition to age-related increases in the incidence of sexism during adolescence, it is likely that girls become better at recognizing sexism when it occurs. Increased cognitive sophistication was one of the influences on perceptions of discrimination in Brown and Bigler's (2005) developmental model. The cognitive skills that they highlighted—such as perspective taking, moral reasoning, and social comparison—can emerge by early adolescence. However, these abilities vary across individuals and often continue to develop throughout adolescence. Other relevant sociocognitive abilities may not commonly occur until late adolescence or early adulthood. One example is critical consciousness (e.g., Diemer, Kauffman, Koenig, Trahan, & Hsieh, 2006), which refers to an awareness of institutionalized patterns of social injustice. This realization often depends on some sort of consciousness-raising experience. As discussed next, exposure to feminism may be one catalyst.

Socialization influence. Although Brown and Bigler (2005) acknowledged how social factors could moderate the likelihood of perceiving discrimination, they did not explicitly address potential socialization influences such as exposure to feminism or felt

pressures for gender conformity. We observed that learning about feminism through either the media or known persons contributed to girls' reports of all three forms of sexism. These associations may reflect two or more patterns of influence. One option is that girls may become more open to learning about feminism after experiencing sexism. Another possibility is that learning about feminism helps girls recognize sexism when it occurs. For example, nationwide reports of sexual harassment sharply increased following the widespread media coverage of Anita Hill's testimony of sexual harassment during the Supreme Court confirmation hearings for Clarence Thomas (Gross, 1992; Jaschik-Herman & Fisk, 1995). By labeling particular behaviors as sexual harassment, women (and girls) are more likely to recognize these sexist events when they occur (see Marin & Guadagno, 1999; Roscoe, Strouse, Goodwin, Taracks, & Henderson, 1994).

Exposure to feminism did not lead to increased reports of sexism for all girls equally. Feminist messages appeared to be most powerful for girls who either held moderately egalitarian attitudes or who were at least moderately discontent with gender norms. Thus, girls may need to be somewhat responsive to questioning the status quo for feminist messages to be most influential.

We also found that perceived gender-conformity pressure from parents was significantly related to perceptions of athletic sexism and was marginally related to perceptions of both sexual harassment and academic sexism. In contrast, the influence of pressures from peers was always moderated by individual factors (discussed below). This suggests that, although peers are the most frequent source of sexism, parents also play a powerful role in girls' experiences. We suspect that experiencing and recognizing gender-conformity pressures from parents may contribute to girls' awareness more generally of gender discrimination. However, the reverse could also be true; that is, girls who recognize sexism in their lives may be more sensitive to conformity pressures from others.

Individual influences. Brown and Bigler (2005) noted that various individual factors, such as self-concepts and attitudes, could affect perceptions of discrimination. In our study, we examined aspects of girls' social gender identity—their felt gender typicality and gender-role contentedness—as well as their gender-egalitarian attitudes. As predicted, girls who perceived themselves to be more atypical for their gender or who were more discontent with stereotypical gender roles reported more experiences with all three types of sexism. Perhaps experiencing sexism contributes to feeling uncharacteristic or to discontent with traditional gender roles. Being discouraged from

certain domains or being treated as sexual objects may lead girls to reject traditional gender norms. Alternatively, girls who feel alienated (i.e., not typical) and disenchanted (i.e., discontent) with traditional gender roles may be more likely to recognize sexism. Consistent with gender schema theory (Martin, 2000), girls who are satisfied with traditional gender roles may tend to ignore information that is discrepant with their worldview and thus downplay evidence of gender-based discrimination. Still another interpretation of the results is that gender typicality, gender-role contentedness, and perceived sexism are each influenced by one or more unidentified variables. For example, perhaps early-maturing girls feel low in gender typicality and also are subjected to more unwanted sexual attention compared to other girls (e.g., Ge, Conger, & Elder, 1996).

With perceptions of both academic and athletic sexism, there were interactions between gender typicality and felt peer pressure. Girls who perceived themselves to be atypical were most likely to report academic and athletic sexism if they also perceived high pressure from peers to conform to gender norms. For girls who feel alienated from traditional gender roles, it may be especially exasperating also to feel pressure to adhere to those very norms. As a consequence, perhaps they are especially sensitive to recognizing the negative aspects of traditional gender roles such as academic or athletic discrimination (e.g., Foulis & McCabe, 1997). Also, adolescent girls who are interested in fields such as science or sports may be the ones who are most prone to feeling atypical for their gender and subject to conformity pressures. Over time, peer rejection for gender nonconformity can impede girls' confidence, self-esteem, and achievement (e.g., Daniels & Leaper, 2006; Smith & Leaper, 2006).

Girls' endorsement of gender equality was another individual variable examined in our study. We hypothesized that girls with more gender-egalitarian beliefs would be more likely to recognize and report sexism. There was a nonsignificant trend (p = .07) in relation to reported sexual harassment that followed this pattern. Brown and Bigler (2004) similarly observed that children in the United States were more likely to detect discrimination depicted in vignettes when they held gender-egalitarian beliefs. In addition, Foulis and McCabe (1997) also found that gender-related attitudes predicted adolescent and young adult women's reported experiences with sexual harassment in Australia. Other research suggests that egalitarian attitudes may be a necessary, but not sufficient, requirement for recognizing sexism (Swim & Cohen, 1997).

We hypothesized that girls with gender-egalitarian beliefs would be more likely than girls with traditional beliefs to perceive academic sexism. This prediction was not supported. Egalitarian attitudes did significantly interact with two socialization factors, although the patterns were contrary to what we initially expected. First, there was an interaction between egalitarian attitudes and exposure to feminism in the media. Among girls with little media exposure to feminism, perceived academic sexism was significantly less likely among girls with egalitarian beliefs than those with traditional beliefs. In contrast, among girls with media exposure to feminism, perceived academic sexism was not correlated with egalitarian attitudes. We wonder if this result reflects the difference between girls who either have or have not integrated their egalitarian ideals with a feminist awareness. Learning about feminism may provide girls a conceptual framework to reconcile their egalitarian ideals with an awareness of sexist events. Otherwise, among egalitarian girls with little or no awareness of feminism, acknowledging occasional sexist comments about academic abilities would be discrepant with their ideals. Thus, these egalitarian girls may be less likely than traditional girls to encode and recall these events (see Martin, 2000).

The second interaction effect in relation to academic sexism was between egalitarian attitudes and perceived peer pressure for gender conformity. Specifically, there was a significant negative correlation for egalitarian attitudes among girls who experienced either high or low-but not moderate-levels of peerconformity pressure. The fact that peers were the most common perpetrators of discouraging comments may be pertinent to understanding this pattern: First, among egalitarian girls who experience high peer pressure for gender conformity, acknowledging sexist comments may create cognitive dissonance ("I want to be accepted by my classmates yet they are saying things that go against my egalitarian beliefs"). Consequently, these girls may tend to ignore (and thereby underreport) the discouraging comments. In contrast, among egalitarian girls experiencing low peer pressure, discouraging comments may actually occur less often. That is, low levels of peer gender-conformity pressure may include hearing fewer discouraging comments about girls' academic abilities. Of course, these possibilities need to be tested directly in future research.

As these interaction effects suggest, holding egalitarian attitudes apparently made it less likely that girls recognized academic sexism under certain social conditions. We had expected a positive association between egalitarian attitudes and perceptions of sexism, as occurred with regards to girls' reports of

sexual harassment. Perhaps, the difference in these patterns is due to the relative salience of sexual harassment versus disparaging comments about girls' academic abilities. When schema-discrepant information is highly salient, it is difficult to ignore it. For example, getting unwanted sexual attention or being teased about one's appearance may be more difficult to ignore than a comment about girls not being good at math. These ideas could be tested in future research by examining girls' recall of sexist events depending on their gender attitudes and exposure to feminism (cf. Martin & Halverson, 1983).

In sum, the current study suggests that most girls experience incidents of sexual harassment, athletic sexism, and academic during adolescence. Not all girls perceive sexism equally, however. Messages about feminism and gender-conformity pressures from parents and peers may facilitate perceptions of sexism. Furthermore, girls' own self-concepts and attitudes about gender roles predicted their perceptions of sexism, such that girls who feel discontent with or alienated from traditional gender roles are more likely to perceive sexism than other girls. There also appears to be a limit to what adolescent girls will notice. If perceiving sexism is too discrepant with girls' schemas about gender in the world, then sexism may be ignored (unless it is too salient).

#### Limitations and Future Directions

To our knowledge, our study is the first to examine social and individual influences on girls' personal experiences with different forms of sexism. The results document the prevalence of gender discrimination in adolescent girls' lives and point to factors that may affect these experiences. Nonetheless, our study has limitations, and we close our discussion with five suggested ways to build on our research.

First, we recommend comparing subjective and objective experiences of sexism. In our study, we do not know the degree to which girls' reports corresponded to the actual incidence of sexist events. A few prior studies indicate that adolescent girls (Terrance et al., 2004; Witkowska & Gådin, 2005) and women (Bergman, Langhout, Palmieri, Cortina, & Fitzgerald, 2002; Knapp, Faley, Ekeberg, & Dubois, 1997) tend to underestimate the amount of sexual harassment and other forms of sexism targeted at them (viz. the personal/group discrimination discrepancy; Crosby, 1984). This leads to our second proposal. We suggest assessing girls' views about sexism directed to each of their classmates as well as to themselves. This would offer both methodological and theoretical advantages. We could assess how well girls estimate their own

experiences with sexism. Moreover, it would be possible to test if the personal/group discrimination discrepancy seen in adulthood (Crosby, 1984; Taylor, Wright, Moghaddam, & Lalonde, 1990) occurs in adolescence. Our third proposal is to investigate girls' developing awareness of institutionalized sexism in the larger society (besides recognizing sexism directed at either themselves or their peers). That is, how and when do girls recognize gender inequities in the division of labor in politics, business, and the family? Fourth, if sexism is a pervasive reality in adolescent girls' lives, then it behooves us to find ways to help girls overcome these barriers as well as reduce its incidence. Guided partly by research on women's coping with sexism (e.g., Ayres, Friedman, & Leaper, 2006; Foster, 2000; Kaiser & Miller, 2004) and work on racial socialization (e.g., Hughes et al., 2006), we are currently examining factors related to how adolescent girls cope with sexism (Brown & Leaper, 2008). Finally, we recommend looking at boys' views and experiences regarding gender discrimination. Although males generally benefit from patriarchal cultural practices, boys who do not conform to traditional images of masculinity are often subject to peer harassment (see Leaper & Friedman, 2007; Smith & Leaper, 2005). Furthermore, boys interested in nontraditional academic subjects such as literature and the arts may be subject to undermining comments from peers, parents, and others (see Pleck, 1995; Van Houtte, 2004).

The preceding recommendations reflect only a few possible directions for future research. Continued work in this area can more fully advance our theoretical understanding of gender. More importantly, this knowledge may provide practical applications for those interested in reducing sexism and its negative impact throughout the life span (AAUW, 2004; Sanders, Koch, & Urso, 1997; Young & Mendez, 2003).

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