### Title

Chapter six Sexism in Schools




### Authors

Leaper, Campbell

Brown, Christia Spears



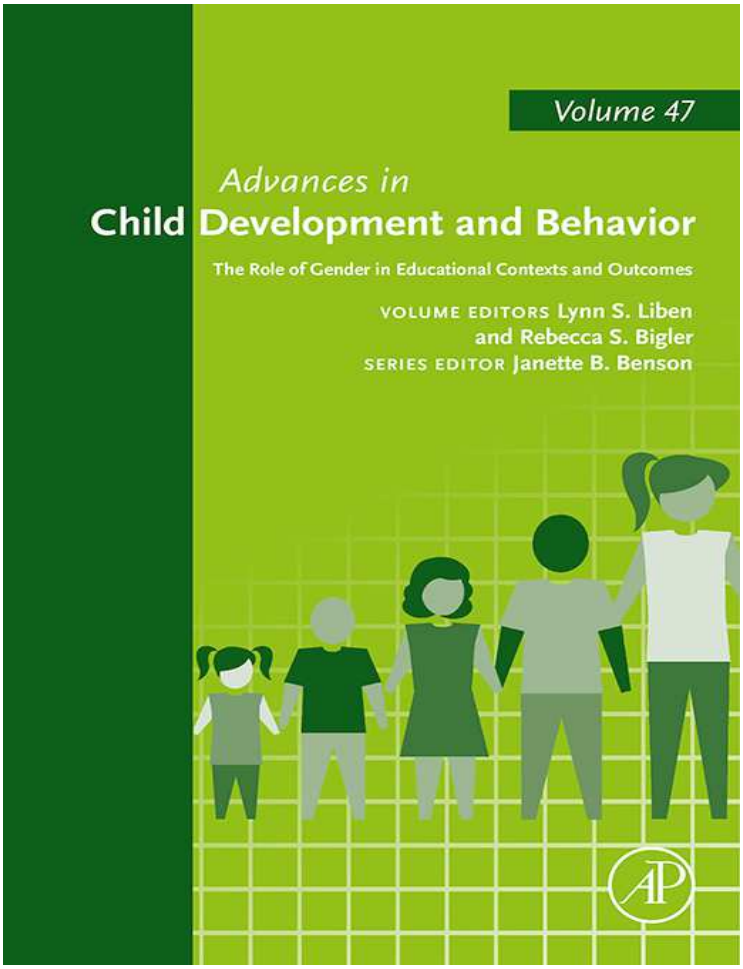
### Publication Date

2014

### DOI

10.1016/bs.acdb.2014.04.001

Peer reviewed






From Campbell Leaper and Christia Spears Brown, Sexism in Schools. In: Lynn S. Liben and Rebecca S. Bigler, editors, *Advances in Child Development and Behavior, Vol. 47*, Burlington: Academic Press, 2014, pp. 189-223.
ISBN: 978-0-12-411582-8

Academic Press

CHAPTER SIX

# Sexism in Schools

**Campbell Leaper**[*,1], **Christia Spears Brown**[†]
[*]Department of Psychology, University of California, Santa Cruz, California, USA
[†]Department of Psychology, University of Kentucky, Lexington, Kentucky, USA
[1]Corresponding author: e-mail address: cam@ucsc.edu

## Contents



## Abstract

Sexism is gender-based prejudice or discrimination. As with other forms of prejudice and discrimination, it functions to maintain status and power differences between groups in society. One manifestation of sexism involves prejudice and discrimination against girls and women who seek to achieve in prestigious fields traditionally associated with males. Another manifestation of sexism, however, occurs when pressures are placed on boys and men to conform to traditional conceptions of masculinity. Over the last two decades, an increasing number of developmental and educational psychologists have become concerned about sexism directed toward children and adolescents in school contexts. Our chapter reviews the research on this topic. After providing an

*The Role of Gender in Educational Contexts and Outcomes* (L. S. Liben & R. S. Bigler, Eds.)
*Advances in Child Development and Behavior* (J. B. Benson, Series Ed.), Vol. 47
ISSN 0065-2407 http://dx.doi.org/10.1016/bs.acdb.2014.04.001

overview of different processes related to sexism, we examine how it is manifested in school contexts. Sexism is seen through gender-stereotyped biases against girls and boys in academic and athletic achievement. Also, it occurs through sexual harassment in social interactions. We also address factors related to children's awareness of sexism and coping responses to sexism. Finally, we consider possible ways to reduce sexism and foster effective coping in schools.

## 1. OVERVIEW OF TYPES OF SEXISM

The constructs known as stereotypes, attitudes, prejudice, and discrimination are interrelated. The term stereotypes refers to particular attributes believed to characterize a group (e.g., "Girls play with dolls"). The term attitudes refers to the positive or negative emotional associations between particular attributes and groups. More specifically, a proscriptive attitude refers to an attribute that the perceiver believes a group should exhibit (e.g., "Girls should play with dolls"); whereas a prescriptive attitude refers to an attribute that the perceiver considers that members of a group should avoid (e.g., "Boys should not play with dolls"). Prejudice occurs when the perceiver evaluates other persons based on their own stereotypes and attitudes (e.g., negative perception of boys who play with dolls). Discrimination is the behavioral expression of prejudice (e.g., bullying a boy who plays with dolls). When prejudice and discrimination are based on a person's gender, it constitutes sexism. Analogous bias against sexual minorities is known as heterosexism.

There are two distinct, but related, types of sexism. According to Glick and Fiske's (1996) ambivalent sexism model, gender-based prejudice is ambivalent because there are asymmetries in status and power between men and women, yet there is male–female interdependence within families and heterosexual relationships. In the model, sexism can include both hostile and benevolent types. Hostile sexism refers to negative attitudes toward individuals who violate traditional gender stereotypes. For example, as in the previous example, teasing a boy who plays with dolls is an expression of hostile sexism. In contrast, benevolent sexism includes protective paternalism (i.e., belief that men must protect women) and complementary gender differentiation (i.e., belief that women and men are different and complement one another). For example, classrooms that teach boys and girls very differently based on presumed gender differences often express benevolent sexism. Although benevolent sexism is often more attractive to

women and men than hostile sexism, both reinforce traditional gender roles and status imbalances.

Researchers studying social cognition, based on a dual-process model of cognition, have illustrated that stereotypes, attitudes, and prejudices can operate at both conscious (or explicit) and unconscious (or implicit) levels (e.g., Greenwald et al., 2002). Conscious or explicit stereotyped attitudes are reflected in the views that individuals deliberately express to others. For example, a child might observe a boy playing with a doll and state, "Only girls can play with dolls." Unconscious or implicit stereotyped attitudes are seen when individuals respond automatically in situations based on conditioned semantic and emotional associations to particular social categories. These automatic responses sometimes differ from the conscious or explicit beliefs that children and adults hold (Greenwald et al., 2002).

Two kinds of sexism occurring in school contexts are addressed in this chapter. First, gender biases are sometimes reflected in differential expectations for girls and boys in overall school success, particular academic subjects, or athletics. These biases can affect children's developing beliefs, motives, and abilities. Second, sexual harassment is another form of sexism that affects many students in schools. It refers to inappropriate or hostile sexual behaviors that occur in face-to-face interactions (e.g., sexual teasing, unwanted touching) or through the use of online social media. With both types of sexism, children's achievement and well-being can be affected both directly and indirectly. Direct influences occur when institutions, adults, and peers encourage or discourage particular behaviors based on children's gender. Indirect influences occur when children internalize gender-stereotyped expectations and thereby avoid practicing particular behaviors or achieving in particular domains they see as contrary to their gender ideology.

Sexism is sometimes experienced differently based on the individual's ethnicity or race. As explicated in feminist standpoint theory, ethnicity/race intersect with gender in complicated ways (Basow & Rubin, 1999; Stewart & McDermott, 2004). Barbarin, Chinn, and Wright (2014) [Chapter 10 of this volume] and Rowley et al. (2014) [Chapter 9 of this volume] address this complexity by highlighting the unique experiences of African American boys within and outside of school contexts. This intersection can impact sexism within schools in at least three related ways. One issue is that children from different ethnic/racial groups may be differentially knowledgeable about and sensitive to sexism. In some situations, both boys and girls from minority ethnic/racial groups (such as African Americans, Latino/a Americans, and Asian Americans) are more sensitive to all forms of

discrimination and therefore are more likely than White European American children to recognize sexism (see Kane, 2000). However, at times, the opposite trend seems to occur; that is, gender bias is most salient to White European American children because gender is their primary social identity (Brown, Alabi, Huynh, & Masten, 2011; Turner & Brown, 2007).

A second issue related to ethnicity/race is that gender is sometimes constructed differently in certain cultural contexts. For example, gender-typing pressures tend to be more traditional among Latino children compared to White European American children (e.g., Azmitia & Brown, 2000). Furthermore, among adolescents, many Latinas have distinct conceptions of feminism, in which they combine cultural ideals of *marianismo* (e.g., Hurtado, 2003) with notions of gender equality (Manago, Brown, & Leaper, 2009). In contrast, gender typing tends to be less traditional among African American children than among European American children (see Kane, 2000).

Finally, ethnicity and race are associated with their own academic stigmas and achievement gaps. For example, throughout elementary school, Latino students perform worse on average in math and reading, and are more likely to perform below grade level, than their European American counterparts (e.g., Lee & Bowen, 2006). These types of ethnic achievement gaps can exacerbate or mitigate gender-based achievement gaps (e.g., gender gaps in math achievement are highest for European American students and nonexistent among African American students; McGraw, Lubienski, & Strutchens, 2006). Thus, any discussion of sexism within schools should acknowledge that sexism occurs within a particular ethnic/racial context and does not impact all children in the same way.

## 2. PERPETRATORS OF SEXISM

Sexism can be perpetuated in schools directly and indirectly. Within the classroom, teachers can express implicit and explicit sexist attitudes and show differential treatment of boys and girls (e.g., Tiedemann, 2000). Within hallways and other public spaces in schools, peers can perpetrate sexism by harassing and rejecting the target of their gender bias. Sexism can also be perpetuated in schools indirectly. Parents are influential in shaping the academic attitudes that children bring to school (e.g., Frome & Eccles, 1998; Herbert & Stipek, 2005). Popular media consumed by most children is also a powerful source of sexism through its pervasive reinforcement of gender stereotypes (Signorielli, 2012).

## 2.1. Teachers

Once children begin school, teachers may perpetuate sexism in various ways. Studies from the 1990s found that some teachers hold sexist attitudes about children's abilities and interests. Some teachers, for example, were more likely to perceive boys than girls as logical, competitive, liking math, independent in math, and needing math and were more likely to attribute boys' success in math to ability but attribute girls' success to effort (Fennema, Peterson, Carpenter, & Lubinski, 1990; Jackson & Leffingwell, 1999; Li, 1999; Tiedemann, 2000). These implicit and explicit biases can affect teacher's expectations for their students, and research has consistently shown that expectations about students' abilities can be self-fulfilling (Jussim & Harber, 2005).

The same era of research revealed that, in some studies, teachers treated boys and girls differently in the classroom, such as favoring boys over girls when calling on students, asking students to explain their answers, and giving repeated explanations in science and math classes (AAUW, 1992; Jackson & Leffingwell, 1999). When girls did get attention, it could be contradictory: They may have received criticism for the content of work completed, yet praise for the neatness and timeliness of the work (AAUW, 1992). Perhaps because of this differential treatment, teachers' gender stereotypes are reflected in students' gender stereotypes (Keller, 2001).

More recent research has shown that many teachers try to be egalitarian in their explicit beliefs (Garrahy, 2001; Jones & Myhill, 2004). Teachers often rate boys and girls similarly on math competencies, which is consistent with boys' and girls' actual performance (Helwig, Anderson, & Tindal, 2001; Herbert & Stipek, 2005). Researchers have observed patterns that are opposite to those seen in earlier studies; that is, some teachers now evaluate girls higher than boys in math competence when they are aware of students' gender—but not when they are blind to students' gender (Lavy, 2008). Conversely, some teachers perceive boys as more likely to be underachievers and troublemakers compared to girls (Jones & Myhill, 2004); this difference is particularly pronounced for African American boys and girls (Wood, Kaplan, & McLoyd, 2007). Yet, even when teachers perceive gender similarities in overall academic competence, they often assume that boys and girls have different learning styles and interests (Skelton et al., 2009).

Current research focuses on how teachers' implicit gender biases may influence children within the classroom. An example of a how implicit sexism can affect children is the finding that female teachers' own math anxiety is associated with an increase in girls endorsing the stereotype that "boys are good at math and girls are good at reading" (Beilock, Gunderson, Ramirez, & Levine, 2010).

This in turn is associated with girls' lower math performance (Beilock et al., 2010). Although the exact mechanism of influence is unclear, some female teachers may model these stereotypes through their own nonverbal behavior (see Lane, 2012; Petersen & Hyde, 2014 [Chapter 2 of this volume]).

## 2.2. Peers

Peers can also be sources of sexism at school for children and adolescents. Although peer-directed sexism can be important across all school years, the impact of peers is particularly influential during middle school (Brown & Larson, 2009). Most frequently, peers express sexism through perpetrating sexual harassment toward classmates and through rejecting or teasing gender-atypical classmates.

As will be described below, peers are the most frequent perpetrators of sexual harassment (Fineran & Bennett, 1999). Furthermore, because sexual harassment typically occurs in public (often in school hallways and classrooms; Harris Interactive, 2001; Timmerman, 2005), peers have the opportunity to reinforce and regulate these behaviors. Indeed, adolescents indicate that sexual harassment is both implicitly condoned and explicitly encouraged by peers. About 54% of adolescents admit to perpetrating sexual harassment against a peer (Harris Interactive, 2001). Of those students, a majority stated that they sexually harassed a peer because "a lot of people do it" (reported by 39% of perpetrators) or "their friends encouraged them" (reported by 24% of perpetrators; Harris Interactive, 2001). Peer norms about the acceptability of sexual harassment are a strong predictor of an individual's own sexually harassing behavior (Jewell & Brown, 2013).

In addition to perpetrating and condoning sexual harassment, peers also perpetrate sexism by teasing other classmates who do not conform to gender norms. Research on group norms indicates that children who do not meet the norms or fit the stereotypes of the group can be bullied, mocked, or ostracized by group members (Abrams, Rutland, Cameron, & Ferrell, 2007). Peers frequently harass and ostracize boys and girls who are deemed atypical for their gender (Jewell & Brown 2014; Russell, Kosciw, Horn, & Saewyc, 2010; Smith & Leaper 2006; Young & Sweeting, 2004). Conversely, highly gender-typical children have the most positive peer relations, being rated as the most liked and the most popular (Egan & Perry, 2001; Jewell & Brown, 2014; Lobel, Bempechat, Gewirtz, Shoken-Topaz, & Bashe, 1993; Rose, Glick, & Smith, 2011). This form of sexism is condoned,

with adolescents reporting that it is more acceptable to exclude or tease a gender-atypical peer than a gender-typical peer (Horn, 2008).

There is asymmetry, however, in that boys are more likely than girls to experience negative peer sanctions for low levels of gender typicality. Although peers make negative comments to girls when they engage in traditionally male activities such as athletics and mathematics (Leaper & Brown, 2008), boys who appear feminine or have poor athletic abilities face even harsher repercussions from their peers (Lee & Troop-Gordon, 2011; Pascoe, 2007). Poteat, Scheer, and Mereish (2014) [Chapter 8 of this volume] provide a detailed account of the frequency and consequences of the victimization of gender non-conforming and sexual minority youth.

## 2.3. Parents

Although a discussion of the myriad ways that parents shape children's gendered behavior is beyond the scope of this chapter, parents can influence children's academic lives through their own implicit and explicit sexism, thus becoming an indirect means by which sexism occurs in school (Gunderson, Ramirez, Levine, & Beilock, 2012). Like teachers, some parents show implicit sexist attitudes about their children's academic abilities. In some studies, parents perceived both science and math to be more important for boys than for girls; they perceived boys to be more competent in science and math than girls; and they expected higher science and math performance from boys than from girls (Andre, Whigham, Hendrickson, & Chambers, 1999; Eccles, Freedman-Doan, Frome, Jacobs, & Yoon, 2000). Parents assumed girls are as not interested in computer science as sons (Sáinz, Pálmen, & García-Cuesta, 2012). Furthermore, in one older study, parents attributed boys' math success to ability, but they attributed girls' math success to effort (Yee & Eccles, 1988).

Parents' stereotypes, assumptions, and expectations can influence their beliefs about their children's abilities and interests, which in turn affect children's self-perceptions and performance (Gunderson et al., 2012; Jacobs, Chhin, & Shaver, 2005). Research has consistently shown that parents' expectations and beliefs about math (particularly when they align with gender stereotypes) can impact children's math attitudes and aptitudes (Yee & Eccles, 1988). Parental expectations, and the resulting encouragement and support behaviors, can be more important than any actual academic experiences. For example, Greek parents' expectations and encouragement about computer science were stronger predictors than children's own computer-based

activities in predicting children's computer self-efficacy (Vekiri & Chronaki, 2008). Beyond that, parents have been shown to steer children's occupational choices in stereotypical directions (Chhin, Bleeker, & Jacobs, 2008; Whiston & Keller, 2004).

Parents' gender biases regarding academic achievement may also include the differential treatment of daughters and sons (Gunderson et al., 2012). Studies conducted in the United States observed that parents of sons discussed math and science concepts more frequently and in more detail with their children than parents of daughters. For example, parents of preschoolers at a science museum were three times more likely to explain science exhibits to sons than to daughters (Crowley, Callanan, Tenenbaum, & Allen, 2001). Another study observed that when parents were assigned to teach their 10-year-old child about a physics phenomenon, fathers were more likely to use teaching talk (e.g., by asking for causal explanations and using conceptual descriptions) with sons than with daughters (Tenenbaum & Leaper, 2003). Still another investigation noted that mother–son conversations included three times more talk about numbers and quantities than did mother–daughter conversations (Chang, Sandhofer, & Brown, 2011). These patterns of differential treatment can privilege boys with relatively more background knowledge and comfort in math and science; in turn, these experiences help to strengthen boys' self-efficacy and interest in these academic domains.

## 2.4. Media

Sexism has been documented in nearly all forms of children's media. Media, by presenting sexist images and narratives, perpetuates common gender stereotypes that are then applied to children within schools. This perpetuation of stereotypes can justify and reinforce sexism at school. For example, analyses of popular children's television programs show that boys are portrayed as answering more questions, telling others what to do more often, and showing more ingenuity than girls (Aubrey & Harrison, 2004). These stereotypes of boys as more assertive than girls are then reinforced by the differential treatment of boys shown by teachers. Video games typically portray boys as aggressive and girls as sexually objectified (Dill & Thill, 2007). These stereotypes of aggressive boys and sexual girls further justify sexual harassment by boys directed at girls.

Sexist portrayals of boys and girls also infiltrate educational media. In elementary school textbooks, females possess some masculine characteristics (such as assertiveness), but males rarely possess feminine characteristics (such

as empathy; Evans & Davies, 2000). This trend is also evident in books prevalent in school libraries. Even among award-winning children's books considered to be nonsexist, boys rarely have feminine-stereotyped traits or occupations (Diekman & Murnen, 2004). Girls' underrepresentation and the gender-stereotypical portrayal of occupations in children's book continue in the new millennium (Hamilton, Anderson, Broaddus, & Young, 2006).

## 3. GENDER BIASES IN SCHOOL ACHIEVEMENT

Sexism affects both boys and girls in school. Girls are stereotypically assumed to be less competent than boys in subjects related to science, technology, engineering, and mathematics (STEM). Girls are also assumed to be less athletically competent than boys (see Solmon, 2014 [Chapter 4 of this volume]). Boys, however, are stereotypically assumed to perform worse than girls in their overall school achievement. On the basis of these negative stereotypes, boys and girls can be the target of sexism during academic classes and sports participation. In this section, we outline the differences between boys and girls in STEM subjects, athletic participation, and overall school achievement and describe the ways in gender biases partially explain the gender differences in these domains.

### 3.1. Biases Against Girls in STEM

Students' achievement in subjects related to STEM is considered important for economic success in today's increasingly technological world (Zakaria, 2011). Accordingly, policymakers and researchers have been concerned with the gender gap in some STEM fields. Compared to 57% of all bachelor's degrees recently going to women in the United States, only 43% of mathematics degrees, 20% of physics degrees, 16% of computer and information sciences, and 18% of engineering went to women (National Center for Education Statistics [NCES], 2013). The association between gender and bachelor's degrees in these fields varies somewhat across the world, however (UNESCO, 2010). Also, the gender gap in all of these fields has narrowed over the last four decades within the United States (National Science Foundation [NSF], 2013). Finally, women are not underrepresented in all STEM fields. In the United States, 58% of bachelor's degrees in the biological and biomedical sciences recently went to women (NSF, 2013).

Average gender differences in achievement in mathematics and some science subjects emerge during adolescence (see Petersen & Hyde, 2014, [Chapter 2 of this volume] for a review). The STEM-related subject that

has garnered the most interest is mathematics. Based on a recent meta-analysis of data collected across the world (Lindberg, Hyde, Petersen, & Linn, 2010), no significant average gender differences in mathematics test performance were indicated during elementary school and middle school; however, there was a significant but small difference favoring boys in high school and college. The slight advantage seen among boys in high school parallels a trend whereby girls tend to decrease their interest in mathematics between middle school and high school (Hill, Corbett, & St. Rose, 2010).

As far as other STEM-related subjects, there is cross-national evidence that boys scored significantly higher on average than girls on the TIMMS high school physics test (TIMMS International Study Center, 2000). Also, significantly higher averages for boys than for girls were indicated on the AP Physics and the AP Computer Science exams (Hill et al., 2010). Despite the slight average advantage for boys over girls in standardized test performances, girls actually attained higher average grades in American high school math and science courses (Hill et al., 2010; NCES, 2013).

Developmental scientists recognize that multiple factors contribute to gender-related variations in achievement (see Leaper, 2013). There is strong evidence, however, that gender biases are among these influences. Studies suggest that many children stereotype males as better than females in many STEM-related fields or they view STEM fields as male domains. For example, this pattern has been indicated for mathematics (e.g., Muzzatti & Agnoli, 2007; Steffens, Jelenec, & Noack, 2010), physics (e.g., Andre et al., 1999; Kessels, 2005), and computer science (e.g., Mercier, Barron, & O'Connor, 2006).

A few studies have begun to examine both implicit and explicit stereotyping in children. In these investigations, some children who did not explicitly endorse gender stereotypes about math showed evidence of implicit gender stereotypes (Cvencek, Meltzoff, & Greenwald, 2011; Del Río & Strasser, 2013; Steffens et al., 2010). These findings are notable because implicit attitudes may have an impact on self-concepts and performance (e.g., Nosek et al., 2009; Steffens & Jelenec, 2011). Nosek and colleagues (2009) examined nation-level variations in gender-science implicit stereotypes and eighth graders' achievement in science and mathematics. Across the 34 countries sampled, the implicit stereotyping of science as male was strongly related to national gender differences in eighth graders' performances in science ($\beta = 0.56$) and mathematics ($\beta = 0.52$).

Girls' internalization of gender stereotypes may affect achievement in STEM-related subjects. When interest and the perceived value of particular subjects have been assessed, researchers commonly observed girls

tended to rate mathematics, physical science, and computers and technology lower than did boys (e.g., Chow, Eccles, & Salmela-Aro, 2012; Dickhäuser & Stiensmeier-Pelster, 2003; Else-Quest, Hyde, & Linn, 2010; Kessels, 2005; Riegle-Crumb, Farkas, & Muller, 2006). As several studies have documented, the perceived value of a domain generally predicts subsequent achievement (see Eccles & Wigfield, 2002).

The impact of negative gender stereotypes on performance has also been illustrated in research on stereotype threat. When a social identity is threatened, it can lead to heightened arousal that disrupts working memory and can impair controlled cognitive processing (Krendl, Richeson, Kelley, & Heatherton, 2008). As a result, performance in assessment settings can suffer. According to a recent meta-analysis testing for stereotype threat effects on female math performance (Picho, Rodriguez, & Finnie, 2013), there was a small overall effect size for high school students ($d = 0.30$) indicating girls' math performance significantly declined during stereotype threat conditions. Other studies find it is possible to counteract stereotype threat. For example, it is sometimes possible to boost a person's performance when a positive stereotype about a self-relevant social identity is made salient (Ambady, Shih, Kim, & Pittinksy, 2001). Furthermore, stereotype threat effects can be subverted if the person uses strategies such as self-affirmation or focusing on an alternative social identity (Shapiro & Williams, 2012).

Girls learn about negative gender stereotypes through their interactions with parents, teachers, and peers. According to one survey study in the United States, half of adolescent girls between 13 and 18 years reported hearing disparaging statements about girls in math, science, or computers from these sources (Leaper & Brown, 2008). The most commonly cited perpetrators were male peers (32%), which were followed by female peers (22%), teachers/coaches (23%), fathers (15%), and mothers (12%). The likelihood of these reports increased with age. In a subsequent analysis of this data (Brown & Leaper, 2010), it was found that girls' experiences hearing these sexist comments were negatively related to their ability beliefs and interests in math and science (even after controlling for grades and family backgrounds).

Some parents hold gender-stereotypical views about math and science that may not reflect their children's actual achievement. When this occurs, girls' motivation and performance may suffer. One longitudinal study found that these negative stereotypes in mothers predicted subsequent declines in daughters' self-concepts and motivation in math and science (e.g., Bleeker &

Jacobs, 2004). Another investigation observed that parental gender stereotyping of math was related to higher levels of intrusive parental support during homework and lower math ability beliefs in daughters (Bhanot & Jovanovic, 2005). Conversely, other studies suggest ways that some parents may provide more encouraging behaviors to sons than to daughters regarding their achievement in STEM-related subjects (e.g., Simpkins, Davis-Kean, & Eccles, 2005; Tenenbaum & Leaper, 2003; Tenenbaum, Snow, Roach, & Kurland, 2005).

In summary, negative gender stereotypes persist about girls in some STEM fields. These stereotypes may lead some parents and teachers to underestimate girls' potential. Discrimination may occur through the relatively greater provision of encouragement to boys than to girls for achievement in STEM subjects. Moreover, it may also involve overtly discouraging comments about girls' capacities to do well in these areas. Evidence suggests many girls internalize these biases, decreasing their achievement within STEM fields.

## 3.2. Biases Against Girls in Sports

One of the most dramatic gender-related changes in achievement seen in the United States (and many other countries) has been the tenfold increase in girls' participation in high school sports since the 1972 enactment of Title IX of the U.S. Civil Rights Act. At the time, participation in high school sports was approximately 4% for girls and 50% for boys; today, it is approximately 40% for girls and remains 50% for boys (Women's Sports Foundation, 2009).

Despite this change, many children continue to stereotype sports as a male domain (e.g., Cockburn & Clarke, 2002; Rowley, Kutz-Costes, Mistry, & Feagans, 2007; Shakib, 2003). Also, certain sports tend to be viewed as appropriate for "boys only" (e.g., football, wrestling) or for "girls only" (e.g., cheerleading, ballet) (Schmalz, Kerstetter, & Anderson, 2008). Furthermore, some girls may find athleticism conflicts with their peers' norms for femininity and heterosexuality (Cockburn & Clarke, 2002; Shakib, 2003). Hence, in some social settings, girls may experience pressures to drop out of sports. According to one survey study in the United States, three-fourths of adolescent girls between 13 and 18 years reported hearing disparaging statements about girls in sports (Leaper & Brown, 2008). The most commonly cited perpetrators were male peers (54%), which were followed by female peers (38%), teachers/coaches (28%), fathers (30%), and mothers (25%). The likelihood of these reports increased with age.

Even if most girls are not being actively discouraged to participate in sports, many of them may not be getting the same degree of support that boys experience. Studies suggest that peer popularity is more strongly tied to athletic participation among boys than among girls (e.g., Shakib, Veliz, Dunbar, & Sabo, 2011). Also, some parents are more likely to expect athletic achievement in sons than in daughters and therefore may express more enthusiasm for their son's sports involvement. In turn, parents' expectations of success generally tend to predict children's actual achievement (e.g., Fredricks & Eccles, 2002).

Finally, the sports culture can be a context in which sexist and heterosexist attitudes are reinforced in boys. In many schools, teammates and coaches use misogynistic and antigay comments to enforce conformity and pressure achievement in players (Messner, 1998). Furthermore, tolerance for aggression on the field or court may generalize whereby some athletes view aggressive behavior as legitimate for solving problems outside of the sport (Conroy, Silva, Newcomer, Walker, & Johnson, 2001). In some cases, this may extend to an increased risk among some male athletes for sexual violence (Forbes, Adams-Curtis, Pakalka, & White, 2006).

### 3.3. Biases Against Boys in School Achievement

Compared to girls, boys are more likely to get lower grades and are more likely to drop out of high school in most industrialized countries (UNESCO, 2010). (In many nonindustrialized countries, the opposite trend is seen, whereby school access may be limited primarily or solely to boys.) The specific subjects with the largest gender gap in achievement favoring girls include reading, writing, and the arts (Eurydice Network, 2010; NCES, 2013). The gender gap in academic achievement extends into college. Among all bachelor's degrees recently awarded in the United States, only 43% went to men (NCES, 2013); a similar gender gap in college degrees is seen in most OECD countries (OECD, 2013). Within the United States, the gender gap in academic achievement is wider for African Americans and Latino/as youths than for White European Americans or Asian Americans (NCES, 2013). Research suggests that sexism and adherence to traditional notions of masculinity may partly account for these gender gaps.

Sexism functions to maintain traditional status and power relations between men and women in society. One manifestation of sexism involves discrimination against girls and women who seek to achieve in prestigious fields traditionally associated with males (e.g., STEM fields and sports). Another manifestation of sexism, however, occurs when pressures are placed

on boys and men to conform to traditional conceptions of masculinity. For example, boys who are not viewed as tough or athletic are commonly teased (Jewell & Brown, 2014).

Traditional masculinity can undermine some boys' academic achievement. In some communities, doing well in school is viewed as a violation of masculine norms (Kessels & Steinmayr, 2013; Legewie & DiPrete, 2012). For example, boys who are concerned with appearing tough may be reluctant to seek help or to comply with teachers' authority (e.g., Kiefer & Ryan, 2008; Santos, Galligan, Pahlke, & Fabes, 2013). In addition, specific subjects—such as reading or the arts—may be viewed as being especially feminine (e.g., Plante, Théorêt, & Favreau, 2009; Rowley et al., 2007). Thus, boys who do well in school or who like feminine-stereotyped subjects may be teased by their male peers (e.g., Sherriff, 2007; Van de Gaer, Pustjens, Van Damme, & De Munter, 2006). Furthermore, these pressures may be more common among youths from lower-income or some ethnic minority backgrounds (Fuller-Rowell & Doan, 2010).

Endorsement of traditional masculinity ideology may undermine some boys' academic achievement and lead them to resist teachers' authority. However, some teachers and school administrators may exaggerate the extent and the degree that these patterns occur among boys. Teachers may form generalized expectations that girls are better than boys at school (e.g., Jones & Myhill, 2004). Boys may infer these sentiments about teachers' expectations (e.g., Hartley & Sutton, 2013). Also, boys in general—but especially African American and Latino boys—are subject to disproportionate rates of disciplinary action for school misbehavior (Barbarin et al., 2014 [Chapter 10 of this volume]; Losen, 2011; Rowley et al., 2014 [Chapter 9 of this volume]).

## 4. SEXUAL HARASSMENT IN SCHOOL

Sexual harassment includes sexually disparaging comments, unwanted sexual interest, unwanted touching, and sexual coercion. It can involve physical aggression (e.g., unwanted touching, sexual coercion) or verbal aggression (e.g., unwelcome sexual comments, homophobic insults). Also, it can be expressed directly in face-to-face interactions or via electronic messages sent to the victim; or sexual harassment can be expressed indirectly behind the target's back (e.g., spreading sexual rumors). The prevalence and the consequences of sexual harassment in school are reviewed below.

### 4.1. Prevalence of Sexual Harassment in School Settings

Sexual harassment is a common experience for girls and boys in many countries around the world (see Leaper & Robnett, 2011 for a review). For example, the American Association of University Women (AAUW, 2011) conducted a study of sexual harassment in the United States based on a nationally representative sample of students in grades 7–11. Across all grades, 56% of girls and 40% of boys reported experiences with sexual harassment. The gender gap in sexual harassment increased with age; among 12th graders, 62% of girls and 32% of boys reported having experienced sexual harassment. When specific types of sexual harassment were examined across all grade levels, girls were twice as likely as boys to report being targets of unwelcome sexual comments/jokes (46% of girls vs. 22% of boys). Girls and boys reported experiencing antigay or anti-lesbian insults at similar rates (18% of girls vs. 19% of boys). Given the importance of electronic media in many youths' lives, it is also pertinent to note that 36% of girls and 24% of boys experienced online sexual harassment through text messages, e-mail, or Web postings.

The AAUW survey also asked students to identify the gender of the perpetrators and to evaluate the attributes most likely associated with the targets of sexual harassment. In general, boys were more likely than girls to be perpetrators of sexual harassment. Among the students experiencing sexual harassment, 66% identified boys, 19% identified girls, and 11% identified a combination of boys and girls as the perpetrators. The attributes associated with students viewed as most likely to be sexually harassed reflected characteristics associated with sexual attractiveness or traditional gender roles. The qualities attributed to girls who were most likely to be sexually harassed included being physically developed (58%), very pretty (41%), not pretty or not very feminine (32%), or overweight (30%). The attributes associated with boys considered most likely to be sexually harassed included being not athletic or not very masculine (37%), overweight (30%), or good looking (11%).

Other surveys point to similar patterns as those reported in the AAUW survey, although the incidences of sexual harassment vary somewhat (Chiodo, Wolfe, Croosk, Hughes, & Jaffe, 2009; Lacasse, Purdy, & Mendelson, 2003; Leaper & Brown, 2008; Pepler et al., 2006; Petersen & Hyde, 2009; Wei & Chen, 2012). In some studies, higher rates of peer sexual harassment were indicated for boys than for girls (Petersen & Hyde, 2009; Wei & Chen, 2012), which may be related to higher rates of same-gender

harassment among boys than among girls. Studies further suggest sexual harassment may be especially likely for sexual-minority youths (i.e., lesbian, gay, bisexual, transgender, and intersex; e.g., Williams, Connolly, Pepler, & Craig, 2005). Also, higher rates of sexual harassment may occur for students in lower than in higher income neighborhoods (AAUW, 2011). The AAUW survey did not find evidence that ethnic or racial background moderated the incidence of sexual harassment (AAUW, 2011).

### 4.2. Consequences of Sexual Harassment

Besides being somewhat more liable to be targets of sexual harassment, girls are more likely than boys to be negatively affected by sexual harassment (AAUW, 2011; Fineran & Bolen, 2006). Sexual harassment also tends to have a more negative impact on sexual-minority boys than on heterosexual boys (Kosciw, Greytak, Diaz, & Bartkiewicz, 2010). Negative reactions to sexual harassment include internalizing symptoms (e.g., anxiety, depression) and decline in academic performance (see AAUW, 2011; Leaper & Robnett, 2011; Poteat et al., 2014 [Chapter 8 of this volume]). For example, in the AAUW survey, some of the most commonly reported reactions to sexual harassment included not wanting to go to school (37% of girls and 25% of boys), finding it difficult to study (24% of girls and 24% of boys), staying home from school (14% of girls and 9% of boys), and stopping doing an activity or sport (9% of girls and 5% of boys). A longitudinal study of Canadian youths (Chiodo et al., 2009) found that sexual harassment victimization during the 9th grade predicted higher incidences during the 11th grade of feeling unsafe in school, emotional distress, substance abuse, and victimization by peers and dating partners. Experiences with sexual harassment also appear related to increased body image concerns among girls (Chiodo et al., 2009; Lindberg, Grabe, & Hyde, 2007). Thus, repeated experiences with sexual harassment can have negative consequences on girls' and boys' socioemotional adjustment and academic achievement.

## 5. AWARENESS OF SEXISM AND COPING

In addition to research focusing on the impacts of sexism within schools, research also examines children's perceptions of sexism at the individual level, their developing awareness of sexism in general, and their coping responses when sexism is encountered. Perceiving sexism can be a complex phenomenon. There are some instances when a child or an adolescent may be the target of sexism but is unaware of it. For example, a girl can hear a discouraging comment about her math abilities, but she may

attribute it to her individual poor performance rather than a gender-based stereotype. There are other instances when the child is the target of sexism and perceives it as bias. A high-achieving boy may be teased for not seeming tough, but he can recognize the teasing is based on a stereotype of how boys are supposed to act. Each situation may differentially impact the child.

At the individual level, perceiving sexism can be associated with negative psychological outcomes, such as greater stress, lower global self-esteem, more emotional problems, and more behavioral problems (e.g., DuBois, Burk-Braxton, Swenson, Tevendale, & Hardesty, 2002). Simultaneously, there can also positive consequences of perceiving individual sexism. After receiving personal negative feedback, individuals can attribute the feedback to gender bias as opposed to their own competency, thus maintaining a positive sense of self-efficacy (Brown, Bigler, & Chu, 2010). At the broader group level, knowledge of sexism can help members of a group attribute underrepresentation to gender bias instead of innate group traits. Girls, for example, can attribute the lack of female U.S. Presidents to institutional sexism instead of women being incompetent leaders (Bigler, Arthur, Hughes, & Patterson, 2008). Knowledge of historical sexism regarding math and science careers has been shown to motivate girls to combat future discrimination (Pahlke, Bigler, & Green, 2010). Knowledge of sexism can also help individuals be more accepting of gender nonconforming peers, to challenge sexist comments by their peers, and to view media (and all other environmental inputs) through a "sexism" filter that prevents such messages from reinforcing personal gender stereotyping and prejudice (Pahlke, Bigler, & Martin, 2014).

Most importantly, when children are aware of sexism and can perceive it in any given situation, they then have the opportunity to cope with it. In the following section, we first describe children's developing awareness of sexism and then describe ways in which children cope with sexism when it does occur.

## 5.1. Awareness of Sexism

To be generally aware of sexism, children must first have knowledge of gender stereotypes and gender inequalities. Evidence suggests that children are aware of gender stereotypes early in childhood, well before they enter elementary school (see Halim & Ruble, 2010). As children get older, their knowledge of gender inequalities increases. Liben, Bigler, and Krogh (2001) found that, by middle childhood, children were aware of the greater status (e.g., greater income) associated with the jobs performed by men

compared to jobs performed by women, even when the jobs are fictional and thus not based on actual job characteristics. By the start of elementary school, the majority of children were aware that no woman has ever been president of the United States, although this knowledge became more common across the elementary school years (Bigler et al., 2008). A little more than one-quarter of children (with slightly higher rates among girls than among boys) spontaneously attributed the historical lack of female presidents to discrimination (e.g., "People like voting for boys more than girls."). One quarter of children agreed with the statement that it is *currently* against the law for a woman to be president (a form of institutional sexism) and half believed that individual voters would be discriminatory (Bigler et al., 2008). As children enter adolescence, they become more aware of societal levels of gender inequality. Yet, although women still make 70 cents for every dollar paid to men and are underrepresented in the upper echelon of corporations, children are more likely to perceive status inequalities in politics than in the business world (Neff, Cooper, & Woodruff, 2007).

Beyond knowledge of sexism in general, children can also recognize gender discrimination in their own lives by middle childhood. In surveys about school gender bias given to students in fourth through eighth grade (Brown et al., 2011), girls typically reported that boys receive preferential treatment in athletics (e.g., "The P.E. teacher always thinks boys will be faster"); in contrast, boys reported that girls are given preferential treatment within the classroom (e.g., "When a girl does something wrong, the teacher never gets her in trouble; a boy does the same thing, and he always gets in trouble").

Although children and adolescents are generally aware of sexism and capable of perceiving discrimination (see Brown & Bigler, 2005), individuals perceive themselves to be the target of discrimination rather infrequently (Crosby, 1984; Taylor, Wright, Moghaddam, & Lalonde, 1990). As reported above, although approximately 50% of adolescent girls reported that they had experienced gender discrimination within academic or athletic domains, most girls reported it happening only once or twice within the last year. Interestingly, such low frequencies are common in studies of perception of racial and ethnic discrimination as well (e.g., Benner & Graham, 2011; Brody et al., 2006; Greene, Way, & Pahl, 2006). The adoption of conservative standards for labeling negative treatment as gender discrimination or sexism may be due to the psychological costs associated with perceiving oneself to be the target of discrimination (Quinn, Roese, Pennington, & Olson, 1999).

To date, most research on children's perceptions of sexism involves retrospective self-reports of their past experiences with discrimination. Although such studies are important, they provide little information about *when* and *why* some but not other individuals perceive themselves to be targets of discrimination. Furthermore, it begs the question of whether children are actually only infrequently subject to discriminatory treatment on the basis of gender or whether individual and developmental factors affect children's tendency to perceive experiences as discriminatory. To answer these questions, experimental studies are required in which the feedback and the context are tightly controlled. Two experimental studies have examined children's perceptions of individual sexism. In one study, elementary school children were read stories in which a teacher treated a boy and a girl differently from one another. When children were told that the teacher had a history of favoring one gender over the other, children were more likely to attribute the teacher's behavior to discrimination than more benign reasons, and this attribution was more frequent among children in upper than in lower elementary school (Brown & Bigler, 2004). However, when children were given no information about the teacher's past choices or were told the teacher had a history of fairness, they were more likely to blame the child's lack of effort or ability for the negative treatment. A slightly different pattern emerged in a separate experimental study in which children were given negative feedback about their own performance in a presumed art contest (i.e., they were told they lost an art contest; Brown et al., 2010). Of the very few children who perceived personal discrimination (8 of 108 children), they *only* perceived their own negative feedback to be due to gender discrimination when they were told (a) the contest judges were of the other gender, (b) the contest judges picked other-gender winners in previous years, and (c) the contest judges picked other-gender winners this year. Despite all of the experimental "clues" suggesting gender discrimination at work and despite children's awareness of sexism in general, very few children perceived themselves to the target of gender discrimination. These findings suggest that surveys of children and adolescents' experience with sexism are likely to yield underestimates of the frequency of these experiences.

Beyond children's tendency to perceive gender discrimination in certain contexts more than others, developmental models of children and adolescents' perceptions of discrimination posit that awareness of sexism is influenced by the child's cognitive development, situational variables, gender attitudes, and gender (Brown & Bigler, 2005). For example, within any given situation, children with more advanced social perspective-taking

abilities and classification skills, and children who can better compare their outcomes with others, will be more likely to perceive sexism than children with less advanced cognitive abilities. Furthermore, evidence suggests that children perceive sexism more readily when it is directed toward others or toward a group than when directed at themselves (Brown & Bigler, 2004; Brown et al., 2010), and when they perceive available social supports (Leaper & Brown, 2008). Children's gender attitudes are also associated with their awareness of sexism. Adolescent girls were more likely to recognize gender discrimination when they held gender-egalitarian attitudes (Brown & Bigler, 2004; Leaper & Brown, 2008) or reported having learned about feminism (Leaper & Brown, 2008). Finally, girls are more likely to perceive sexism than boys during middle childhood and adolescence; this pattern may reflect girls' greater awareness of their lower social status relative to males (e.g., Brown & Bigler, 2004; Brown et al., 2011, 2010; DuBois et al., 2002). When youths perceive sexism, the ways in which they cope with the experience are important in influencing the outcome.

## 5.2. Coping with Sexism

According to Lazarus and Folkman's (1984) model of stress and coping, effective coping to any stressful situation, including experiencing sexism, depends on the person's cognitive appraisal of the stressful event, and the subsequent type of behavioral coping strategy used. There are two broad types of coping strategies used in response to sexism, and the type of strategy used is partially based on the individual's appraisal of the costs and benefits of each behavioral response. A general distinction is often made between approach (or engagement) and avoidant (or disengagement) coping strategies (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Lazarus, 1999; Lazarus & Folkman, 1984; Magley, 2002). *Approach strategies* are oriented toward addressing the threat. These might include confronting the source of the stress (e.g., confronting someone about sexist behavior) or seeking social support (e.g., talking to someone about what happened). People may seek others to gain emotional reassurance, to clarify their understanding of the situation, or to get advice. In contrast, *avoidance strategies* are oriented away from the threat such as downplaying or ignoring the event. In general, research indicates that approach strategies are more effective than avoidant strategies in reducing stress in adolescents (Compas et al., 2001) and adults (Lazarus, 1999). In response to sexism, approach strategies

can empower the individual, reduce stress, and increase motivation; whereas avoidance strategies can lead to a sense of helplessness and diminish motivation (e.g., Miller & Major, 2000; Swim & Thomas, 2006).

Recent research has highlighted the relevance of the stress and coping model to adolescent girls and women's experiences with sexism (e.g., Ayres, Friedman, & Leaper, 2009; Cortina & Wasti, 2005; Kaiser & Miller, 2004). For example, Kaiser and Miller (2004) found that women's cognitive appraisals predicted their likelihood of confrontational responses to recent experiences with sexism. Researchers have found that adolescent girls and young women who perceive social support were more likely to use approach coping strategies than girls without social support (Holahan, Valentiner, & Moos, 1995; Moradi & Funderburk, 2006). Feeling supported from friends or parents (particularly mothers) may bolster girls' confidence to use approach coping strategies when sexism occurs (Leaper, Brown, & Ayres, 2013). This could include either confronting perpetrators of sexism or seeking others for advice and emotional support (e.g., Cortina & Wasti, 2005).

Having a meaningful social identity, particularly one that is empowering in the face of sexism, also seems to be important in helping individuals cope with sexism. Some evidence, for example, suggests that having a feminist identification helps girls (and women) cope with gender discrimination (e.g., Ayres et al., 2009; Leaper & Arias, 2011). This parallels research on ethnic identity, which finds that having a positive ethnic identity helps buffer against the negative effects of ethnic discrimination (e.g., Umaña-Taylor & Updegraff, 2007).

## 6. REDUCING SEXISM IN SCHOOLS

Because of the important social, emotional, and academic consequences of sexism from peers and teachers, numerous attempts have been made to reduce gender biases in school. Some attempts involve experimental interventions directed at changing children's behaviors and attitudes. Some attempts involve changing the school itself: either the school climate or the school infrastructure. In this section, we outline ways that sexism can potentially be reduced within schools, beginning with changes to the gender composition of the schools and then discussing interventions that have been implemented within existing schools.

## 6.1. Single-Gender Versus Coeducational Schools' Debate

One approach to reduce sexism within schools has been to segregate schools, or at least classes within schools, on the basis of gender (see Bigler, Hayes, & Liben, 2014 [Chapter 7 of this volume]). Instituting single-gender public education is possible because of changes to educational policy enacted after No Child Left Behind Act was passed in 2001 and the U.S. Department of Education (DOE) issued new regulations in 2006. Since then, more than 1000 school districts in 46 states have instituted some degree of single-sex public education (although the exact numbers are difficult to determine; Klein & Sesma, 2011).

Proponents of single-gender schools argue that segregated education reduces sexism in schools in two ways. First, several influential proponents of single-gender education argue that there are important, innate sex differences between boys' and girls' brain structure (e.g., differences in size of corpus collosum), hormones, and physiology (Gurian, 2001; Sax, 2005). Because of these supposed differences, they argue that boys and girls have different learning styles and interests, and teaching boys and girls similarly constitutes a form of bias. For example, Gurian (2001) argues that girls are not as capable as boys of abstract thought, instead needing to "have things conceptualized in usable, everyday language, replete with concrete details" (p. 46). Thus, according to this argument, it is unfair to teach girls' abstract concepts in the same way that boys are taught. Supporters of this approach also argue that boys and girls have innately different interests, and to be equitable, schools should tailor education toward those interests. For example, some schools are using hunting analogies in lessons for boys and dishwashing analogies for girls (Weil, 2008).

The second reason that some schools implement single-gender education is based on the argument that, regardless of biological and neurological differences, the current coeducational schools are overly feminine and fail to meet the needs of boys, especially ethnic minority boys (see Barbarin et al., 2014 [Chapter 10 of this volume]), thus contributing to the behavioral problems of boys (e.g., Whitmire, 2010). They cite evidence that boys are twice as likely as girls to be suspended and more than twice as likely to be diagnosed with Attention Deficit-Hyperactivity Disorder (Rao & Seaton, 2009). They also argue that girls are overly inhibited around boys, largely because of boys' domination of teacher attention and girls' concerns with being attractive to boys (see Salomone, 2006).

There are many critics of single-gender education. Critics of single-gender education argue that educational segregation by gender is, by

definition, a form of gender bias (Halpern et al., 2011). Critics point to research indicating that gender segregation in education actually fosters and increases gender stereotypes (Fabes, Pahlke, Martin, & Hanish, 2013). Recent research shows that randomly assigning children to one single-gender class led to a 14% increase in the odds of believing that "boys are better than girls at math" and "girls are better than boys at language arts." Children who were randomly assigned to eight single-gender classes were 112% more likely to become gender-stereotypic (Fabes et al., 2013). Additional negative consequences of gender segregation are outlined by Martin, Fabes, & Hanish (2014) [Chapter 5 of this volume].

Neuroscientists also point out that there are, in fact, very few innate differences in brain structures, hormones, and physiology (Eliot, 2009). They argue that there are small differences at birth that become larger as children are increasingly socialized in gender-stereotypical ways (Eliot, 2009). Thus, basing educational policy on sex differences that do not exist is misguided (Halpern et al., 2011).

Several meta-analyses have examined whether single-gender education is educationally beneficial compared to coeducational education. Shortly before issuing regulations for the implementation of single-gender education, the U. S. Department of Education (2005) found that there were no conclusive educational advantages to single-gender education. After taking into account various moderators (e.g., participants' socioeconomic status, methodological factors), the results of two additional meta-analyses indicated no meaningful differences in educational outcomes when comparing single-gender versus coeducational schooling (Pahlke, Hyde, & Allison, 2014; Signorella, Hayes, & Li, 2013). Because there seem to be important disadvantages of single-gender education (i.e., increased gender stereotypes), and no educational advantages (Pahlke et al., 2014; Signorella et al., 2013; U.S. Department of Education, 2005), critics of single-gender education argue that segregating by gender is not the solution for reducing sexism within schools (see Bigler et al., 2014 [Chapter 7 of this volume]).

## 6.2. Interventions

Other approaches to reducing sexism within schools have taken a more direct approach to countering the bias that occurs. Some approaches teach children to confront sexism they encounter; some approaches help children attribute negative feedback to discrimination when it is appropriate; and other approaches try to reduce the impact of sexism on children's academic outcomes.

First, some interventions have taught individuals to confront instances of bias that they witness. Research has shown that teaching people to publically confront instances of prejudice can reduce the biases of those who witness the confrontation (Czopp, Monteith, & Mark, 2006). This has been shown to be particularly influential when the confrontation comes from an individual who is not the target of bias but rather from a bystander (Rasinski & Czopp, 2010). Extending this research (which was focused on ethnic bias) to instances of gender bias, some studies have examined whether confronting sexism reduces the sexist attitudes of those who witness the confrontation. Within the classroom, teachers are important individuals to train to confront sexism. Teachers who confront sexism in the classroom, because of their special authority within the class, are particularly able to model a gender-fair norm (Pornpitakpan, 2004). In one study, students saw videotaped vignettes in which a student made a sexist comment about girls not being good at math (Boysen, 2013). The teacher in the video either confronted the offending student or ignored the comment. College students who watched the teacher confront the sexist student showed reduced sexist attitudes after watching the confrontation (Boysen, 2013). Importantly, in a follow-up study, students showed a similar reduction in sexist attitudes after watching a peer confront a sexist student (Boysen, 2013).

Fewer interventions have tried to teach children how to confront, and thus reduce, sexism. In one effective example, Lamb, Bigler, Liben, and Green (2009) taught elementary school children to respond to sexist comments they heard from peers. Most of the comments that peers said to one another involved teasing a gender-atypical student. The researchers taught children to use funny retorts (e.g., "You can't say 'Girls can't play'") or direct rebuttals to the sexist comments. They found that the training intervention, particularly when children practiced the responses using role-playing, was effective in increasing children's confrontation of sexist comments (similar results were replicated in Pahlke et al., 2014). Indeed, using retorts in response to sexism seemed to spread over time to the other experimental groups. Large-scale bystander intervention studies (e.g., the Green Dot program in which college students are taught to speak out and report instances of violence against women) have also been effective in increasing confrontations against sexism (Coker et al., 2011).

Other approaches have suggested that it is beneficial for children to recognize sexism when they encounter it, thus making it possible to attribute their negative feedback to external (rather than internal) causes and recognize it as unfair. To test this premise, the effects of learning about gender discrimination on American adolescent girls' science motivation were

tested in an experiment (Weisgram & Bigler, 2007). Girls participated in a program aimed at increasing interest in science, with the experimental group additionally receiving lessons about gender-based occupational discrimination. Girls in the experimental group showed increased self-efficacy and value about science after learning about gender discrimination compared to the control group (who did not learn about discrimination). Additional research has shown that learning about past discrimination inspires girls to battle future discrimination (Pahlke et al., 2010). These studies suggest that one way to reduce the impact of sexism is to directly teach about sexism.

### 6.3. School Climate

Because bystander inventions and confronting sexism when it is encountered seem to be an important step in reducing sexism within schools, approaches that alter the entire school climate are likely to be the most effective in reducing sexism. In other words, it is likely that school-wide programs that make sexism unacceptable, and make it normative to confront sexism, will show the greatest reduction in sexism. These broad-based interventions have been shown to be effective in reducing bullying at schools (O'Moore & Minton, 2005; Salmivalli, Kaukiainen, & Voeten, 2005). The goal of these approaches is to change the climate so that peers are intolerant to bullying. Research has shown that the greater and more widespread the implementation, the larger the effects. For example, schools were most effective in reducing bullying when they implemented a school-wide policy against bullying; when teachers were educated about bullying; and when teachers worked with their entire classroom using role-playing and establishing anti-bullying rules (Salmivalli et al., 2005).

Sexual harassment perpetration seems to be largely influenced by school climate (Attar-Schwartz, 2009). For example, Ormerod, Collinsworth, and Perry (2008) examined the impact of sexual harassment on high school students. School climate moderated the impact of sexual harassment on both girls and boys. When the school climate was tolerant of sexual harassment, the impacts on self-esteem, body image, psychological distress, school withdrawal, and perceptions of school safety were worse.

## 7. CONCLUSIONS

As we have reviewed in our chapter, sexism in schools can undermine the academic achievement and social adjustment of girls and boys. Sexism outside of school can also affect children's behavior and motivation in the

classroom. The perpetrators of sexism may include teachers, parents, peers, and media. In these contexts, children may experience gender-stereotyped biases regarding the kinds of achievements that are viewed desirable or inappropriate for girls and boys. Some of the biases that we reviewed include negative stereotypes about girls and women in many STEM fields and athletics. We also noted how traditional notions of masculinity can undermine boys' overall academic achievement. Furthermore, surveys indicate that most girls and boys experience sexual harassment in schools. In addition to the negative impact on their socioemotional adjustment, sexual harassment can reduce students' academic motivation. Next, we addressed factors related to students' awareness of sexism in schools as well as effective coping strategies that can bolster students' resilience in the face of sexist events. Finally, we considered some of the strategies that have been examined for reducing gender bias and sexism in schools. In contrast to some who have advocated single-gender schools as a means to improve boys' and girls' academic success, comprehensive reviews of the research literature do not point to meaningful difference between single-gender and coeducational schooling in relation to student outcomes. Other strategies, such as teaching about gender bias, promoting proactive coping in children, and fostering an egalitarian school climate, may be more promising ways to increase the success of both girls and boys in our schools.

## REFERENCES

Abrams, D., Rutland, A., Cameron, L., & Ferrell, J. (2007). Older but wilier: In-group accountability and the development of subjective group dynamics. *Developmental Psychology*, *43*, 134–148.

Ambady, N., Shih, M., Kim, A., & Pittinksy, T. L. (2001). Stereotype susceptibility in children: Effects of identity activation on quantitative performance. *Psychological Science*, *12*, 385–390.

American Association of University Women (AAUW). (1992). *How schools shortchange girls*. Washington, DC: Author.

American Association of University Women (AAUW). (2011). *Crossing the line: Sexual harassment at school*. Washington, DC: Author.

Andre, T., Whigham, M., Hendrickson, A., & Chambers, S. (1999). Competency beliefs, positive affect, and gender stereotypes of elementary students and their parents about science versus other school subjects. *Journal of Research in Science Teaching*, *36*, 719–747.

Attar-Schwartz, S. (2009). Peer sexual harassment victimization at school: The roles of student characteristics, cultural affiliation, and school factors. *The American Journal of Orthopsychiatry*, *79*, 407–420.

Aubrey, J., & Harrison, K. (2004). The gender-role content of children's favorite television programs and its links to their gender-related perceptions. *Media Psychology*, *6*, 111–146.

Ayres, M. M., Friedman, C. K., & Leaper, C. (2009). Individual and situational factors related to young women's likelihood of confronting sexism in their everyday lives. *Sex Roles*, *61*, 449–460.

Azmitia, A., & Brown, J. R. (2000). Latino immigrant parents' beliefs about the "path of life" of their adolescent children. In J. M. Contreras, K. A. Kerns, & A. M. Neal-Barnett (Eds.), *Latino children and families in the United States* (pp. 77–106). Westport, CT: Praeger Press.

Barbarin, O. A., Chinn, L., & Wright, Y. F. (2014). Creating developmentally auspicious school environments for African American boys. In L. S. Liben & R. S. Bigler (Vol. Eds.), *The role of gender in educational contexts and outcomes*. In J. B. Benson (Series Ed.), *Advances in child development and behavior: Vol. 47* (pp. 333–365). London: Elsevier.

Basow, S., & Rubin, L. (1999). Gender influences on adolescent development. In N. Johnson, M. C. Roberts, & J. Worrell (Eds.), *Beyond appearance: A new look at adolescent girls* (pp. 25–52). Washington, DC: American Psychological Association.

Beilock, S. L., Gunderson, E. A., Ramirez, G., & Levine, S. C. (2010). Female teachers' math anxiety affects girls' math achievement. *Proceedings of the National Academy of Sciences of the United States of America*, *107*, 1860–1863.

Benner, A. D., & Graham, S. (2011). Latino adolescents' experiences of discrimination across the first 2 years of high school: Correlates and influences on educational outcomes. *Child Development*, *82*, 508–519.

Bhanot, R., & Jovanovic, J. (2005). Do parents' academic gender stereotypes influence whether they intrude on their children's homework? *Sex Roles*, *52*, 597–607.

Bigler, R. S., Arthur, A. E., Hughes, J. M., & Patterson, M. M. (2008). The politics of race and gender: Children's perceptions of discrimination and the U.S. presidency. *Analyses of Social Issues and Public Policy: ASAP*, *8*(1), 83–112.

Bigler, R. S., Hayes, A. R., & Liben, L. S. (2014). Analysis and evaluation of the rationales for single-sex schooling. In L. S. Liben & R. S. Bigler (Vol. Eds.), *The role of gender in educational contexts and outcomes*. In J. B. Benson (Series Ed.), *Advances in child development and behavior: Vol. 47* (pp. 225–260). London: Elsevier.

Bleeker, M. M., & Jacobs, J. E. (2004). Achievement in math and science: Do mothers' beliefs matter 12 years later? *Journal of Educational Psychology*, *96*, 97–109.

Boysen, G. A. (2013). Confronting math stereotypes in the classroom: Its effect on female college students' sexism and perceptions of confronters. *Sex Roles*, *69*, 297–307.

Brody, G. H., Chen, Y. F., Murry, V. M., Ge, X., Simons, R. L., Gibbons, F. X., et al. (2006). Perceived discrimination and the adjustment of African American youths: A five-year longitudinal analysis with contextual moderation effects. *Child Development*, 77, 1170–1189.

Brown, C. S., Alabi, B. O., Huynh, V. W., & Masten, C. L. (2011). Ethnicity and gender in late childhood and early adolescence: Group identity and awareness of bias. *Developmental Psychology*, *47*, 463–471.

Brown, C. S., & Bigler, R. S. (2004). Children's perceptions of gender discrimination. *Developmental Psychology*, *40*, 714–726.

Brown, C. S., & Bigler, R. S. (2005). Children's perceptions of discrimination: A developmental model. *Child Development*, *76*, 533–553.

Brown, C., Bigler, R. S., & Chu, H. (2010). An experimental study of the correlates and consequences of perceiving oneself to be the target of gender discrimination. *Journal of Experimental Child Psychology*, *107*, 100–117.

Brown, B. B., & Larson, J. (2009). Peer relationships in adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 74–103) (3rd ed.). Hoboken, NJ: John Wiley & Sons Inc.

Brown, C. S., & Leaper, C. (2010). Latina and European American girls' experiences with academic sexism and their self-concepts in mathematics and science during adolescence. *Sex Roles*, *63*, 860–870.

Chang, A., Sandhofer, C. M., & Brown, C. S. (2011). Gender biases in early number exposure to preschool-aged children. *Journal of Language and Social Psychology*, *30*, 440–450.

Chhin, C. S., Bleeker, M. M., & Jacobs, J. E. (2008). Gender-typed occupational choices: The long-term impact of parents' beliefs and expectations. In Helen M. G. Watt, &

Jacquelynne S. Eccles (Eds.), *Gender and occupational outcomes: Longitudinal assessments of individual, social, and cultural influences* (pp. 215–234). Washington, DC: American Psychological Association.

Chiodo, D., Wolfe, D. A., Croosk, C., Hughes, R., & Jaffe, P. (2009). Impact of sexual harassment victimization by peers on subsequent adolescent victimization and adjustment: A longitudinal study. *Journal of Adolescent Health*, *45*, 246–252.

Chow, A., Eccles, J. S., & Salmela-Aro, K. (2012). Task value profiles across subjects and aspirations to physical and IT-related sciences in the United States and Finland. *Developmental Psychology*, *48*, 1612–1628.

Cockburn, C., & Clarke, G. (2002). "Everybody's looking at you!" Girls negotiating the "femininity deficit" they incur in physical education. *Women's Studies International Forum*, *25*, 651–665.

Coker, A. L., Cook-Craig, P. G., Williams, C. M., Fisher, B. S., Clear, E. R., Garcia, L. S., et al. (2011). Evaluation of Green Dot: An active bystander intervention to reduce sexual violence on college campuses. *Violence Against Women*, *17*, 777–796.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*, *127*, 87–127.

Conroy, D. E., Silva, J. M., Newcomer, R. R., Walker, B. W., & Johnson, M. S. (2001). Personal and participatory socializers of the perceived legitimacy of aggressive behavior in sport. *Aggressive Behavior*, *27*, 405–418.

Cortina, L. M., & Wasti, S. A. (2005). Profiles in coping: Responses to sexual harassment across persons, organizations, and cultures. *Journal of Applied Psychology*, *90*, 182–192.

Crosby, F. (1984). The denial of personal discrimination. *American Behavioral Scientist*, *27*, 371–386.

Crowley, K., Callanan, M. A., Tenenbaum, H. R., & Allen, E. (2001). Parents explain more often to boys than to girls during shared scientific thinking. *Psychological Science*, *12*, 258–261.

Cvencek, D., Meltzoff, A. N., & Greenwald, A. G. (2011). Math–gender stereotypes in elementary school children. *Child Development*, *82*, 766–779.

Czopp, A. M., Monteith, M. J., & Mark, A. Y. (2006). Standing up for a change: Reducing bias through interpersonal confrontation. *Journal of Personality and Social Psychology*, *90*, 784.

Del Río, M. F., & Strasser, K. (2013). Preschool children's beliefs about gender differences in academic skills. *Sex Roles*, *68*, 231–238.

Dickhäuser, O., & Stiensmeier-Pelster, J. (2003). Gender differences in the choice of computer courses: Applying an expectancy-value model. *Social Psychology of Education*, *6*, 173–189.

Diekman, A. B., & Murnen, S. K. (2004). Learning to be little women and little men: The inequitable gender equality of nonsexist children's literature. *Sex Roles*, *50*, 373–385.

Dill, K. E., & Thill, K. P. (2007). Video game characters and the socialization of gender roles: Young people's perceptions mirror sexist media depictions. *Sex Roles*, *57*, 851–864.

DuBois, D. L., Burk-Braxton, C., Swenson, L. P., Tevendale, H. D., & Hardesty, J. L. (2002). Race and gender influences on adjustment in early adolescence: Investigation of an integrative model. *Child Development*, *73*, 1573–1592.

Eccles, J. S., Freedman-Doan, C., Frome, P., Jacobs, J., & Yoon, K. S. (2000). Gender-role socialization in the family: A longitudinal approach. In T. Eckes, & H. M. Trautner (Eds.), *The developmental social psychology of gender* (pp. 333–360). Mahwah, NJ: Erlbaum.

Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, *53*, 109–132.

Egan, S., & Perry, D. (2001). Gender identity: A multidimensional analysis with implications for psychosocial adjustment. *Developmental Psychology*, *37*, 451–463.

Eliot, L. (2009). *Pink brain, blue brain*. Boston: Houghton Mifflin Harcourt.
Else-Quest, N., Hyde, J., & Linn, M. C. (2010). Cross-national patterns of gender differences in mathematics: A meta-analysis. *Psychological Bulletin*, *136*, 103–127.
Eurydice Network (2010). *Gender differences in educational outcomes: Study on the measures taken and the current situation in Europe*. Brussels: EACEA P9 Eurydice.
Evans, L., & Davies, K. (2000). No sissy boys here: A content analysis of the representation of masculinity in elementary school reading textbooks. *Sex Roles*, *42*, 255–270.
Fabes, R. A., Pahlke, E., Martin, C. L., & Hanish, L. D. (2013). Gender-segregated schooling and gender stereotyping. *Educational Studies*, *39*, 315–319.
Fennema, E., Peterson, P. L., Carpenter, T. P., & Lubinski, C. A. (1990). Teachers' attributions and beliefs about girls, boys, and mathematics. *Educational Studies in Mathematics*, *21*, 55–69.
Fineran, S., & Bennett, L. (1999). Gender and power issues of peer sexual harassment among teenagers. *Journal of Interpersonal Violence*, *14*, 626–641.
Fineran, S., & Bolen, R. M. (2006). Risk factors for peer sexual harassment in schools. *Journal of Interpersonal Violence*, *21*, 1169–1190.
Forbes, G. B., Adams-Curtis, L. E., Pakalka, A. H., & White, K. B. (2006). Dating aggression, sexual coercion, and aggression-supporting attitudes among college men as a function of participation in aggressive high school sports. *Violence Against Women*, *12*, 441–455.
Fredricks, J. A., & Eccles, J. S. (2002). Children's competence and value beliefs from childhood through adolescence: Growth trajectories in two male-sex-typed domains. *Developmental Psychology*, *38*, 519–533.
Frome, P., & Eccles, J. (1998). Parents' influence on children's achievement-related perceptions. *Journal of Personality and Social Psychology*, *74*, 435–452.
Fuller-Rowell, T. E., & Doan, S. N. (2010). The social costs of academic success across ethnic groups. *Child Development*, *81*, 1696–1713.
Garrahy, D. A. (2001). Three third-grade teachers' gender-related beliefs and behavior. *The Elementary School Journal*, *102*, 81–94.
Glick, P., & Fiske, S. T. (1996). The ambivalent sexism inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, *70*, 491.
Greene, M. L., Way, N., & Pahl, K. (2006). Trajectories of perceived adult and peer discrimination among Black, Latino, and Asian American adolescents: Patterns and psychological correlates. *Developmental Psychology*, *42*, 218.
Greenwald, A. G., Banaji, M. R., Rudman, L. A., Farnham, S. D., Nosek, B. A., & Mellott, D. S. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review*, *109*, 3–25.
Gunderson, E. A., Ramirez, G., Levine, S. C., & Beilock, S. L. (2012). The role of parents and teachers in the development of gender-related math attitudes. *Sex Roles*, *66*, 153–166.
Gurian, M. (2001). *Boys and girls learn differently!*. San Francisco, CA: Jossey-Bass.
Halim, M. L., & Ruble, D. (2010). Gender identity and stereotyping in early and middle childhood. In J. C. Chrisler, & D. R. McCreary (Eds.), *Handbook of gender research in psychology* (pp. 495–525). New York: Springer.
Halpern, D. F., Eliot, L., Bigler, R. S., Fabes, R. A., Hanish, L. D., Hyde, J., et al. (2011). The pseudoscience of single-sex schooling. *Science*, *333*(6050), 1706–1707.
Hamilton, M. C., Anderson, D., Broaddus, M., & Young, K. (2006). Gender stereotyping and under-representation of female characters in 200 popular children's picture books: A twenty-first century update. *Sex Roles*, *55*, 757–765.
Harris Interactive (2001). *Hostile hallways: Bullying, teasing, and sexual harassment in school*. Washington, DC: American Association of University Women Educational Foundation.
Hartley, B. L., & Sutton, R. M. (2013). A stereotype threat account of boys' academic underachievement. *Child Development*, *84*, 1716–1733.

Helwig, R., Anderson, L., & Tindal, G. (2001). Influence of elementary student gender on teachers' perceptions of mathematics achievement. *The Journal of Educational Research*, *95*, 93–102.

Herbert, J., & Stipek, D. (2005). The emergence of gender differences in children's perceptions of their academic competence. *Journal of Applied Developmental Psychology*, *26*, 276–295.

Hill, C., Corbett, C., & St. Rose, A. (2010). *Why so few? Women in science, technology, engineering, and mathematics*. Washington, DC: AAUW.

Holahan, C. J., Valentiner, D. P., & Moos, R. H. (1995). Parental support, coping strategies, and psychological adjustment: An integrative model with late adolescents. *Journal of Youth and Adolescence*, *24*, 633–648.

Horn, S. S. (2008). The multifaceted nature of sexual prejudice: How adolescents reason about sexual orientation and sexual prejudice. In S. R. Levi & M. Killen (Eds.), *Intergroup attitudes and relations in childhood through adulthood* (pp. 173–188). New York, NY: Oxford University Press.

Hurtado, A. (2003). *Voicing Chicana feminisms: Young women speak out on sexuality and identity*. New York: New York University Press.

Jackson, C. D., & Leffingwell, R. J. (1999). The role of instructions in creating math anxiety in students from kindergarten through college. *The Mathematics Teacher*, *92*, 583–586.

Jacobs, J. E., Chhin, C. S., & Shaver, K. (2005). Longitudinal links between perceptions of adolescence and the social beliefs of adolescents: Are parents' stereotypes related to beliefs held about and by their children? *Journal of Youth and Adolescence*, *34*, 61–72.

Jewell, J. A., & Brown, C. S. (2013). Sexting, catcalls, and butt slaps: How gender stereotypes and perceived group norms predict sexualized behavior. *Sex Roles*, *69*, 594–604.

Jewell, J. A., & Brown, C. S. (2014). Relations among gender typicality, peer relations, and mental health during early adolescence. *Social Development*, *23*, 137–156.

Jones, S., & Myhill, D. (2004). 'Troublesome boys' and 'compliant girls': Gender identity and perceptions of achievement and underachievement. *British Journal of Sociology of Education*, *25*, 547–561.

Jussim, L., & Harber, K. D. (2005). Teacher expectations and self-fulfilling prophecies: Knowns and unknowns, resolved and unresolved controversies. *Personality and Social Psychology Review*, *9*, 131–155.

Kaiser, C. R., & Miller, C. T. (2004). A stress and coping perspective on confronting abstract sexism. *Psychology of Women Quarterly*, *28*, 168–178.

Kane, E. (2000). Racial and ethnic variations in gender-related attitudes. *Annual Review of Sociology*, *26*, 419–439.

Keller, C. (2001). Effect of teachers' stereotyping on students' stereotyping of mathematics as a male domain. *The Journal of Social Psychology*, *141*, 165–173.

Kessels, U. (2005). Fitting into the stereotype: How gender-stereotyped perceptions of prototypic peers relate to liking for school subjects. *European Journal of Psychology of Education*, *20*, 309–323.

Kessels, U., & Steinmayr, R. (2013). Macho-man in school: Toward the role of gender role self-concepts and help seeking in school performance. *Learning and Educational Differences*, *23*, 234–240.

Kiefer, S. M., & Ryan, A. M. (2008). Striving for social dominance over peers: The implications for academic adjustment during early adolescence. *Journal of Educational Psychology*, *100*, 417–428.

Klein, S., & Sesma, E. (2011). *What are we learning from the 2006–7 Office for Civil Rights Survey question about public schools with single-sex academic classes? An exploratory study*. Arlington, VA: Feminist Majority Foundation.

Kosciw, J. G., Greytak, E. A., Diaz, E. M., & Bartkiewicz, M. J. (2010). *The 2009 national school climate survey: The experiences of lesbian, gay, bisexual, and transgender youth in our nation's schools*. New York, NY: GLSEN.

Krendl, A. C., Richeson, J. A., Kelley, W. M., & Heatherton, T. F. (2008). The negative consequences of threat: A functional magnetic resonance imaging investigation of the neural mechanisms underlying women's underperformance in math. *Psychological Science*, *19*, 168–175.

Lacasse, A., Purdy, K. T., & Mendelson, M. J. (2003). The mixed company they keep: Potentially offensive sexual behaviors among adolescents. *International Journal of Behavioral Development*, *27*, 532–540.

Lamb, L. M., Bigler, R. S., Liben, L. S., & Green, V. A. (2009). Teaching children to confront peers' sexist remarks: Implications for theories of gender development and educational practice. *Sex Roles*, *61*, 361–382.

Lane, K. A. (2012). Being narrow while being broad: The importance of construct specificity and theoretical generality. *Sex Roles*, *66*, 167–174.

Lavy, V. (2008). Do gender stereotypes reduce girls' or boys' human capital outcomes? Evidence from a natural experiment. *Journal of Public Economics*, *92*, 2083–2105.

Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. New York: Springer.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Leaper, C. (2013). Gender development during childhood. In P. D. Zelazo (Ed.), *Oxford handbook of developmental psychology: Vol. 2* (pp. 327–377). New York: Oxford University Press.

Leaper, C., & Arias, D. M. (2011). College women's feminist identity: A multidimensional analysis with implications for coping with sexism. *Sex Roles*, *64*, 475–490.

Leaper, C., & Brown, C. S. (2008). Perceived experiences with sexism among adolescent girls. *Child Development*, *79*, 685–704.

Leaper, C., Brown, C. S., & Ayres, M. M. (2013). Adolescent girls' cognitive appraisals of coping responses to sexual harassment. *Psychology in the Schools*, *50*, 969–986.

Leaper, C., & Robnett, R. D. (2011). Sexism. In J. R. Levesque (Ed.), *Encyclopedia of adolescence* (pp. 2641–2648). New York: Springer.

Lee, J. S., & Bowen, N. K. (2006). Parent involvement, cultural capital, and the achievement gap among elementary school children. *American Educational Research Journal*, *43*, 193–218.

Lee, E., & Troop-Gordon, W. (2011). Peer processes and gender role development: Changes in gender atypicality related to negative peer treatment and children's friendships. *Sex Roles*, *64*, 90–102.

Legewie, J., & DiPrete, T. A. (2012). School context and the gender gap in educational achievement. *American Sociological Review*, *77*, 463–485.

Li, Q. (1999). Teachers' beliefs and gender differences in mathematics: A review. *Educational Research*, *41*, 63–76.

Liben, L. S., Bigler, R. S., & Krogh, H. R. (2001). Pink and blue collar jobs: Children's judgments of job status and job aspirations in relation to sex of worker. *Journal of Experimental Child Psychology*, *79*, 346–363.

Lindberg, S. M., Grabe, S., & Hyde, J. S. (2007). Gender, pubertal development, and peer sexual harassment predict objectified body consciousness in early adolescence. *Journal of Research on Adolescence*, *17*, 723–742.

Lindberg, S. M., Hyde, J. S., Petersen, J. L., & Linn, M. C. (2010). New trends in gender and mathematics performance: A meta-analysis. *Psychological Bulletin*, *136*, 1123–1135.

Lobel, T. E., Bempechat, J., Gewirtz, J. C., Shoken-Topaz, T., & Bashe, E. (1993). The role of gender-related information and self-endorsement of traits in preadolescents' inferences and judgments. *Child Development*, *64*, 1285–1294.

Losen, D. J. (2011). *Discipline policies, successful schools, and racial justice*. Boulder, CO: National Education Policy Center. Retrieved from http://nepc.colorado.edu/publication/discipline-policies.

Magley, V. J. (2002). Coping with sexual harassment: Reconceptualizing women's resistance. *Journal of Personality and Social Psychology*, *83*, 930–946.

Manago, A., Brown, C., & Leaper, C. (2009). Feminist identity among Latina adolescents. *Journal of Adolescent Research*, *24*, 750–776.

Martin, C. L., Fabes, R. A., & Hanish, L. D. (2014). Gendered-peer relationships in educational contexts. In L. S. Liben & R. S. Bigler (Vol. Eds.), *The role of gender in educational contexts and outcomes*. In J. B. Benson (Series Ed.), *Advances in child development and behavior: Vol. 47* (pp. 151–187). London: Elsevier.

McGraw, R., Lubienski, S. T., & Strutchens, M. E. (2006). A closer look at gender in NAEP mathematics achievement and affect data: Intersections with achievement, race/ethnicity, and socioeconomic status. *Journal for Research in Mathematics Education*, *37*, 129–150.

Mercier, E. M., Barron, B., & O'Connor, K. M. (2006). Images of self and others as computer users: The role of gender and experience. *Journal of Computer Assisted Learning*, *22*, 335–348.

Messner, M. A. (1998). Boyhood, organized sports, and the construction of masculinities. In M. A. Messner (Ed.), *Men's lives* (pp. 109–121). Boston, MA: Allyn & Bacon.

Miller, C. T., & Major, B. (2000). Coping with stigma and prejudice. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 243–272). New York: Guilford.

Moradi, B., & Funderburk, J. R. (2006). Roles of perceived sexist events and perceived social support in the mental health of women seeking counseling. *Journal of Counseling Psychology*, *53*, 464–473.

Muzzatti, B., & Agnoli, F. (2007). Gender and mathematics: Attitudes and stereotype threat susceptibility in Italian children. *Developmental Psychology*, *43*, 747–759.

National Center for Education Statistics. (2013). *The condition of education*. Washington, DC: U.S. Department of Education. Retrieved from http://nces.ed.gov/pubsearch.

National Science Foundation (2013). *Women, minorities, and persons with disabilities in science and engineering*. Washington, DC: National Science Foundation. Retrieved from http://www.nsf.gov/statistics/wmpd/.

Neff, K. D., Cooper, C. E., & Woodruff, A. L. (2007). Children's and adolescents' developing perceptions of gender inequality. *Social Development*, *16*, 682–699.

Nosek, B. A., Smyth, F. L., Sriram, N., Lindner, N. M., Devos, T., Ayala, A., et al. (2009). National differences in gender–science stereotypes predict national sex differences in science and math achievement. *Proceedings of the National Academy of Sciences of the United States of America*, *106*, 10593–10597.

OECD (2013). *Education at a glance 2013: OECD indicators*. Author: OECD Publishing. Retrieved from http://dx.doi.org/10.1787/eag-2013-en.

O'Moore, A., & Minton, S. (2005). Evaluation of the effectiveness of an anti-bullying programme in primary schools. *Aggressive Behavior*, *31*, 609–622.

Ormerod, A. J., Collinsworth, L. L., & Perry, L. A. (2008). Critical climate: Relations among sexual harassment, climate, and outcomes for high school girls and boys. *Psychology of Women Quarterly*, *32*, 113–125.

Pahlke, E., Bigler, R. S., & Green, V. A. (2010). Effects of learning about historical gender discrimination on early adolescents' occupational judgments and aspirations. *The Journal of Early Adolescence*, *30*(6), 854–894.

Pahlke, E., Bigler, R. S., & Martin, C. L. (2014). Can fostering children's ability to challenge sexism improve critical analysis, internalization, and enactment of inclusive, egalitarian peer relationships? *Journal of Social Issues*, *70*, 113–131.

Pahlke, E., Hyde, J. S., & Allison, C. M. (2014). The effects of single-sex compared to coeducational schooling on students' performance and attitudes: A meta-analyses. *Psychological Bulletin*. Advance online publication http://dx.doi.org/10.1037/a0035740.

Pascoe, C. J. (2007). *Dude, you're a fag: Masculinity and sexuality in high school*. Berkeley: University of California Press.

Pepler, D. J., Craig, W. M., Connolly, J. A., Yuile, A., McMaster, L., & Jiang, D. (2006). A developmental perspective on bullying. *Aggressive Behavior*, *32*, 376–384.

Petersen, J. L., & Hyde, J. S. (2009). A longitudinal investigation of peer sexual harassment victimization in adolescence. *Journal of Adolescence*, *32*, 1173–1188.

Petersen, J., & Hyde, J. S. (2014). Gender-related academic and occupational interests and goals. In L. S. Liben & R. S. Bigler (Vol. Eds.), *The role of gender in educational contexts and outcomes*. In J. B. Benson (Series Ed.), *Advances in child development and behavior: Vol. 47* (pp. 43–76). London: Elsevier.

Picho, K., Rodriguez, A., & Finnie, L. (2013). Exploring the moderating role of context on the mathematics performance of females under stereotype threat: A meta-analysis. *Journal of Social Psychology*, *153*, 299–333.

Plante, I., Théorêt, M., & Favreau, O. E. (2009). Student gender stereotypes: Contrasting the perceived maleness and femaleness of mathematics and language. *Educational Psychology*, *29*, 385–405.

Pornpitakpan, C. (2004). The persuasiveness of source credibility: A critical review of five decades' evidence. *Journal of Applied Social Psychology*, *34*, 243–281.

Poteat, V. P., Scheer, J. R., & Mereish, E. H. (2014). Factors affecting academic achievement among sexual minority and gender-variant youth. In L. S. Liben & R. S. Bigler (Vol. Eds.), *The role of gender in educational contexts and outcomes*. In J. B. Benson (Series Ed.), *Advances in child development and behavior: Vol. 47* (pp. 261–300). London: Elsevier.

Quinn, K. A., Roese, N. J., Pennington, G. L., & Olson, J. M. (1999). The personal/group discrimination discrepancy: The role of informational complexity. *Personality and Social Psychology Bulletin*, *25*, 1430–1440.

Rao, A., & Seaton, M. (2009). *The way of boys*. New York, NY: HarperCollins.

Rasinski, H. M., & Czopp, A. M. (2010). The effect of target status on witnesses' reactions to confrontations of bias. *Basic and Applied Social Psychology*, *32*, 8–16.

Riegle-Crumb, C., Farkas, G., & Muller, C. (2006). The role of gender and friendship in advanced course taking. *Sociology of Education*, *79*, 1017–1045.

Rose, A. J., Glick, G. C., & Smith, R. L. (2011). Popularity and gender: The two cultures of boys and girls. In A. H. N. Cillessen, D. Schwartz, & L. Mayeux (Eds.), *Popularity in the peer system* (pp. 79–102). New York, NY: Guilford Press.

Rowley, S. J., Kutz-Costes, B., Mistry, R., & Feagans, L. (2007). Social status and a predictor of race and gender stereotypes in late childhood and early adolescence. *Social Development*, *16*, 150–168.

Rowley, S. J., Ross, L., Lozada, F., Williams, A., Gale, A., & Kurtz-Costes, B. (2014). Framing black boys: Parent, teacher, and student narratives of the academic lives of black boys. In L. S. Liben & R. S. Bigler (Vol. Eds.), *The role of gender in educational contexts and outcomes*. In J. B. Benson (Series Ed.), *Advances in child development and behavior: Vol. 47* (pp. 301–332). London: Elsevier.

Russell, S., Kosciw, J., Horn, S., & Saewyc, E. (2010). Safe schools policy for LGBTQ students. *Social Policy Report*, *24*, 1–25.

Sáinz, M., Pálmen, R., & García-Cuesta, S. (2012). Parental and secondary school teachers' perceptions of ICT professionals, gender differences and their role in the choice of studies. *Sex Roles*, *66*, 235–249.

Salmivalli, C., Kaukiainen, A., & Voeten, M. (2005). Anti-bullying intervention: Implementation and outcome. *British Journal of Educational Psychology*, *75*, 465–487.

Salomone, R. C. (2006). Single-sex programs: Resolving the research conundrum. *Teachers College Record*, *108*, 778–802.

Santos, C. E., Galligan, K., Pahlke, E., & Fabes, R. A. (2013). *American Journal of Orthopsychiatry*, *83*, 252–264.

Sax, L. (2005). *Why gender matters: What parents and teachers need to know about the emerging science of sex differences*. New York, NY: Doubleday.

Schmalz, D. L., Kerstetter, D. L., & Anderson, D. M. (2008). Stigma consciousness as a predictor of children's participation in recreational vs. competitive sports. *Journal of Sport Behavior*, *31*, 276–297.

Shakib, S. (2003). Female basketball participation. *American Behavioral Scientist*, *46*, 1405–1422.

Shakib, S., Veliz, P., Dunbar, M. D., & Sabo, D. (2011). Athletics as a source for social status among youth: Examining variation by gender, race/ethnicity, and socioeconomic status. *Sociology of Sport Journal*, *28*, 303–328.

Shapiro, J. R., & Williams, A. M. (2012). The role of stereotype threats in undermining girls' and women's performance and interest in STEM fields. *Sex Roles*, *66*, 175–183.

Sherriff, N. (2007). Peer group cultures and social identity: An integrated approach to understanding masculinities. *British Educational Research Journal*, *33*, 349–370.

Signorella, M. L., Hayes, A. R., & Li, Y. (2013). A meta-analytic critique of Mael et al.'s (2005) review of single-sex schooling. *Sex Roles*, *69*, 423–441.

Signorielli, N. (2012). Television's gender-role images and contribution to stereotyping: Past, present and future. In D. G. Singer & J. L. Singer (Eds.), *Handbook of children and the media* (pp. 321–339) (2nd ed.). Thousand Oaks, CA: Sage.

Simpkins, S. D., Davis-Kean, P., & Eccles, J. S. (2005). Parents' socializing behavior and children's participation in math, science, and computer out-of-school activities. *Applied Developmental Science*, *9*, 14–30.

Skelton, C. C., Carrington, B. B., Francis, B. B., Hutchings, M. M., Read, B. B., & Hall, I. I. (2009). Gender 'matters' in the primary classroom: Pupils' and teachers' perspectives. *British Educational Research Journal*, *35*, 187–204.

Smith, T. E., & Leaper, C. (2006). Self-perceived gender typicality and the peer context during adolescence. *Journal of Research on Adolescence*, *16*, 91–103.

Solmon, M. A. (2014). Physical education, sports, and gender in schools. In L. S. Liben & R. S. Bigler (Vol. Eds.), *The role of gender in educational contexts and outcomes*. In J. B. Benson (Series Ed.), *Advances in child development and behavior: Vol. 47* (pp. 117–150). London: Elsevier.

Steffens, M. C., & Jelenec, P. (2011). Separating implicit gender stereotypes regarding math and language: Implicit ability stereotypes are self-serving for boys and men, but not for girls and women. *Sex Roles*, *64*, 324–335.

Steffens, M. C., Jelenec, P., & Noack, P. (2010). On the leaky math pipeline: Comparing implicit math-gender stereotypes and math withdrawal in female and male children and adolescents. *Journal of Educational Psychology*, *102*, 947–963.

Stewart, A., & McDermott, C. (2004). Gender in psychology. *Annual Review of Psychology*, *55*, 519–544.

Swim, J. K., & Thomas, M. A. (2006). Responding to everyday discrimination: A synthesis of research on goal-directed, self-regulatory coping behaviors. In S. Levin, & C. VanLaar (Eds.), *Stigma and group inequality: Social psychological perspectives* (pp. 105–126). Mahwah, NY: Lawrence Erlbaum Associates.

Taylor, D. M., Wright, S. C., Moghaddam, F. M., & Lalonde, R. N. (1990). The personal/group discrimination discrepancy: Perceiving my group, but not myself, to be a target for discrimination. *Personality and Social Psychology Bulletin*, *16*, 254–262.

Tenenbaum, H. R., & Leaper, C. (2003). Parent-child conversations about science: The socialization of gender inequities? *Journal of Applied Developmental Psychology*, *26*, 1–19.

Tenenbaum, H. R., Snow, C. E., Roach, K. A., & Kurland, B. (2005). Talking and reading science: Longitudinal data on sex differences in mother-child conversations in low-income families. *Developmental Psychology*, *39*, 34–47.

Tiedemann, J. (2000). Parents' gender stereotypes and teachers' beliefs as predictors of children's concept of their mathematical ability in elementary school. *Journal of Educational Psychology*, *92*, 144–151.

Timmerman, G. (2005). A comparison between girls' and boys' experiences of unwanted sexual behaviour in secondary schools. *Educational Research*, *47*, 291–306.

TIMSS International Study Center. (2000). *TIMSS physics achievement comparison study*. Boston, MA: Author.

Turner, K. L., & Brown, C. S. (2007). The centrality of gender and ethnic identities across individuals and contexts. *Social Development*, *16*, 700–719.

U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, Policy and Program Studies Service. (2005). *Single-sex versus secondary schooling: A systematic review*. Washington, DC: U.S. Government Printing Office.

Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depressive symptoms. *Journal of Adolescence*, *30*, 549–567.

UNESCO. (2010). *Global education Digest 2010: Comparing education statistics across the world*. Montreal, Quebec: Author.

Van de Gaer, E., Pustjens, H., Van Damme, J., & De Munter, A. (2006). The gender gap in language achievement: The role of school-related attitudes of class groups. *Sex Roles*, *55*, 397–408.

Vekiri, I., & Chronaki, A. (2008). Gender issues in technology use: Perceived social support, computer self-efficacy and value beliefs, and computer use beyond school. *Computers & Education*, *51*, 1392–1404.

Wei, H., & Chen, J. (2012). Factors associated with peer sexual harassment victimization among Taiwanese adolescents. *Sex Roles*, *66*, 66–78.

Weil, E. (2008, March 2). Teaching boys and girls separately. *New York Times Magazine*.

Weisgram, E. S., & Bigler, R. S. (2007). Effects of learning about gender discrimination on adolescent girls' attitudes toward and interest in science. *Psychology of Women Quarterly*, *31*, 262–269.

Whiston, S. C., & Keller, B. K. (2004). The influences of the family of origin on career development: A review and analysis. *The Counseling Psychologist*, *32*, 493–568.

Whitmire, R. (2010). *Why boys fail: Saving our sons from an educational system that's leaving them behind*. New York, NY: AMACOM.

Williams, T., Connolly, J., Pepler, D., & Craig, W. (2005). Peer victimization, social support, and psychosocial adjustment of sexual minority adolescents. *Journal of Youth and Adolescence*, *34*(5), 471–482.

Women's Sports Foundation. (2009). *Women's sports and fitness facts and statistics*. Retrieved from http://www.womenssportsfoundation.org/home/research/.

Wood, D., Kaplan, R., & McLoyd, V. C. (2007). Gender differences in the educational expectations of urban, low-income African American youth: The role of parents and the school. *Journal of Youth and Adolescence*, *36*, 417–427.

Yee, D. K., & Eccles, J. S. (1988). Parent perceptions and attributions for children's math achievement. *Sex Roles*, *19*, 317–333.

Young, R., & Sweeting, H. (2004). Adolescent bullying, relationships, psychological well-being, and gender-atypical behavior: A gender diagnosticity approach. *Sex Roles*, *50*, 525–537.

Zakaria, F. (2011). *The post-American world: Release 2.0*. New York, NY: W. W. Norton.