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## CHAPTER 22

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# The Socialization of Gender

CAMPBELL LEAPER and CARLY KAY FRIEDMAN

From the moment of birth, a child's gender influences the opportunities she or he will experience. Within a few years of life, children begin to form their own ideas about gender that subsequently guide the types of activities they practice, what they find interesting, and the achievements they attain. As children develop, their gender self-concepts, beliefs, and motives are informed and transformed by families, peers, the media, and schools. These social contexts both reflect and perpetuate gender roles and gender inequities in the larger society (Leaper, 2000b; Wood & Eagly, 2002). The purpose of this chapter is to review the major social influences on these developments. We begin our review with a brief survey of theoretical approaches that have proven most helpful in understanding the socialization of gender.

### THEORETICAL FRAMEWORKS

For the most part, contemporary theories of gender development are complementary rather than contradictory (see Martin, Ruble, & Szkrybalo, 2002). That is, most theories either explicitly or implicitly acknowledge the combined influences of social-structural, interpersonal, cognitive-motivational, and biological influences. Theories tend to differ, however, in how much they stress each of these processes in the transmission of gender (Bussey & Bandura, 1999). We concur with reviewers (e.g., Martin et al., 2002; Serbin, Powlishta, & Gulko, 1993) that the field could benefit from more concerted efforts aimed at integrating theoretical approaches. Although positing an integrative theory is beyond the scope of this chapter, we highlight some explanatory constructs from contemporary theoretical approaches that we view as complementary. In our review, we distinguish between social-structural, social-interactive, cognitive-motivational, and biological processes.

### **Social–Structural Processes**

Children's gender development is embedded in a larger societal context. In this regard, the social–structural approach considers how people's relative status and power in society shape their personal circumstances; this perspective also addresses the constraints that these institutionalized roles impose on individuals' behavior. In addition to gender, other important social-status factors include ethnicity, race, economic class, and sexual orientation. The social–structural perspective is also compatible with a feminist analysis that emphasizes the impact of gender inequities in power existing in the home, the labor force, and political institutions (Wood & Eagly, 2002). Although a feminist social–structural approach is common in social psychology and sociology, relatively few developmental psychologists have considered gender from an explicitly feminist social–structural perspective (see Leaper, 2000b; Miller & Scholnick, 2000).

### **Social–Interactive Processes**

Taking into account sexist practices in the larger society when studying children's development requires linking cultural institutions to individuals situated in their specific environments. In this regard, we borrow ideas from both social cognitive theory and sociocultural theory. Both theories emphasize the importance of children's social interactions and daily activities as contexts for the learning of culture. According to sociocultural theory, "the particular skills and orientations that children develop are rooted in the specific historical and cultural activities of the community in which children and their companions interact" (Rogoff, 1990, p. vii). Social cognitive theory similarly stresses opportunities to practice particular behaviors as well as the incentives (or disincentives) that follow for repeating those behaviors as important influences. Thus, the different opportunities that girls and boys systematically experience can be interpreted as forms of gender discrimination (Bussey & Bandura, 1999; Leaper, 2000b). As they are repeated over and over again during the course of childhood, gender-typed practices contribute to the development of gender differences in expectations, values, preferences, and skills.

### **Cognitive–Motivational Processes**

Children internalize the culture's notions of gender once they acquire a symbolic capacity (Bussey & Bandura, 1999). As children form cognitive representations of gender, or gender schemas, they begin to filter the world through a gender lens. This is a fundamental premise of cognitive–developmental theory, gender schema theory, social–cognitive theory, social identity theory, and self-categorization theory (see Bussey & Bandura, 1999; Martin et al., 2002; Turner, 2000). As each of these theories emphasizes, children play an active role in their gender development and a process of self-socialization ensues. Girls and boys make inferences about the meaning and the consequences of gender-related behaviors from their observations and social interactions. Also, children's gender schemas and attitudes influence the type of information they notice and remember. Consequently, girls and boys tend to seek out gender-typed environments that further strengthen their gender-typed expectations and interests. In these ways, children's behavior becomes increasingly regulated by internal standards, values, and perceived consequences (Bussey & Bandura, 1999).

With the acquisition of a gender self-concept, children form a social identity of themselves as member of a particular gender group (see Harris, 1995; Turner, 2000). As emphasized in social identity or self-categorization theories, being a member of a group typically leads to an ingroup bias. Accordingly, several experimental studies have documented that children are more likely to pay attention to objects, activities, behaviors, and social roles associated with their own gender. Conversely, children avoid and devalue what is specifically associated with the other gender. Children's ingroup biases are further reflected in their preferences for same-gender peers and avoidance of other-gender peers (see Martin et al., 2002).

As children value their ingroup membership, they become sensitive to how others view them. For example, Banerjee and Lintern (2000) observed that children were more likely to act in gender-typed ways when peers were present. In this manner, same-gender peer groups tend to promote within-group assimilation. Although children typically internalize most group norms, girls and boys may find that some of their personal interests and values conflict with prevalent peer group's norms. For example, an adolescent girl may enjoy playing basketball despite her friends considering it unfeminine. In such a case, she may decide to play down her athletic accomplishment or otherwise risk being ostracized (Guillet, Sarrazin, & Fontayne, 2000).

Group socialization processes can have different degrees of impact on individuals' motives depending on the status and power of one group relative to the other group (or groups). Two corollaries of social identity theory are relevant. First, members of high-status groups are usually more invested in maintaining group boundaries than members of low-status groups (e.g., Bigler, Brown, & Markell, 2001). Consistent with the greater status and power traditionally accorded to males in society, boys are more likely to initiate and maintain role and group boundaries (see Leaper, 1994). Partly for this reason, gender-typing pressures tend to be more rigid for boys than for girls. A second pertinent corollary is that the characteristics associated with a high-status group are typically valued more than those of a low-status group. With regard to gender, masculine-stereotyped attributes (e.g., independence and assertiveness) tend to be valued more than feminine-stereotyped attributes (e.g., nurturance and compassion) in highly male-dominated societies (see Hofstede, 2000). Although cross-gender-typed behavior can sometimes enhance a girl's status, it typically diminishes a boy's status (see Leaper, 1994). Accordingly, cross-gender-typed behavior tends to be more common among girls than boys.

## **Biological Processes**

Biological factors additionally influence gender development. Wood and Eagly (2002) propose the most important biologically based physical attributes that differentiate the sexes are women's reproductive capacity and men's greater strength, speed, and size. "Physical sex differences, in interaction with social and ecological conditions, influence the roles held by men and women because certain activities are more efficiently accomplished by one sex" (p. 702). Gender-differentiated roles tend to occur in societies wherein women's nursing and infant care hinder their performance of subsistence activities that require, for example, uninterrupted periods of work or extended time away from home. As Wood and Eagly also note, cultural changes have weakened gender-differentiated roles and patriarchy in many postindustrial societies: Women have gained control over their reproduction, and day care has become common. Moreover, strength, size, and

speed are no longer important within these societies for most jobs (particularly those with the highest pay and status).

Researchers investigating biological factors have also examined the organizational and activational influences of hormones on gender development (see Berenbaum, 1998). First, sex-linked hormones may influence brain differentiation and organization during development, and this can contribute to corresponding differences in brain functioning. For example, sex-related differences in prenatal hormones may partly contribute to average gender differences in certain play preferences (see Berenbaum, 1998). Second, because hormones act as chemical messengers in the nervous system, sex-linked variations in hormone levels may influence the contemporaneous activation of certain brain and behavioral responses (Collaer & Hines, 1995).

We do not clearly understand how hormonal and social influences interact during development. Changes in hormones may influence behavior, but how individuals interpret their environments also can activate the release of certain hormones (e.g., see Sapolsky, 1997). Some researchers have suggested that the magnitude of sex-related biological influences are small but they get exaggerated during development—especially if the biological trend is consistent with prevalent gender proscriptions. For example, in their meta-analysis, Eaton and Enns (1986) found that boys tend to score higher than girls in activity level; however, the magnitude of the difference was small during infancy ( $d = .33$ ) and increased with age ( $d = .64$  for school age and older).<sup>1</sup> Given that our culture typically encourages physical activity more in boys than girls beginning in infancy (see Leaper, 2002), socialization practices may transform a small difference into a moderate one. As Scarr and McCartney (1983) explained, biological and environmental influences often work in synergy.

## Summary

Several processes are implicated in children's gender development. First, social-structural factors include the division of labor and the prevalence of patriarchy in the larger society. Second, social-interactive factors affect the types of opportunities and incentives that children experience. Third, cognitive-motivational factors shape how children interpret and act on their worlds. Finally, biological factors include average physical differences between the sexes that may (or may not) be relevant for carrying out certain roles and activities. In addition, biological factors comprise sex-related hormonal influences that may affect the nervous system. Although we acknowledge the impact of biological factors, our review stresses the human capacity for behavioral plasticity in relation to existing environmental opportunities or constraints (see Leaper, 2000b; Wood & Eagly, 2002).

## SOCIALIZATION OF GENDER-RELATED VARIATIONS IN CHILDREN'S DEVELOPMENT

We next consider the socialization of a selective set of outcomes associated with children's gender development. When reviewing each topic, we consider evidence for parental as well as peer influences on gender-typed cognitive-motivational processes and behaviors. For some topics where it is especially relevant, we also address the influences of social-structural factors, the media, teachers and schools, and biological factors. To limit the

scope and the length of the chapter, our selection of topics is necessarily incomplete. We selected areas that we deemed especially relevant to understanding the developmental context for some of the gender divisions and inequities often seen in adulthood. In particular, we address the socialization of (1) gender self-concepts, stereotypes, and attitudes; (2) gender-typed play; (3) sports; (4) social interaction and social norms; (5) academic motivation and achievement; and (6) household labor. Another constraint on our review is that our focus is primarily on children growing up in middle-class Western societies, which reflects the existing research literature itself.

### **Gender Self-Concepts, Stereotypes, and Attitudes**

As previously described, children apply their developing representations of gender, known as gender schemas, to interpret the world around them. When considering the development of children's gender schemas, three types of distinctions are worth noting. First, researchers differentiate between children's schemas for the self (i.e., personal preferences and identity) and their schemas for others (i.e., stereotyped knowledge and attitudes). Although children's gender attitudes may influence their self-concepts (Liben & Bigler, 2002), the association between the two dimensions is generally weak (Signorella, 1999). Second, researchers differentiate between domains of gender typing such as traits, activities, and roles (Liben & Bigler, 2002). Finally, a third relevant distinction is between the knowledge and the endorsement of gender stereotypes. Understanding cultural stereotypes does not necessitate their approval (Liben & Bigler, 2002).

Children's acquisition and development of gender-related cognitions tend to follow a systematic pattern (see Martin et al., 2002, for a review). Children are capable of making perceptual distinctions between gender-linked physical attributes—such as faces and possibly even some gender-typed objects—as they approach 1 year of age. Verbal indications of a gender concept appear around 2 years of age when children begin to use gender to label other people (i.e., gender labeling). This is followed around 3 years of age when children demonstrate knowledge of their own gender (i.e., gender identity). Awareness of one's gender-group membership also becomes the basis of a *social* identity. That is, children see themselves as belonging to their gender group.

Between 3 and 6 years of age, children's concepts of other people's and their own gender become increasingly stable and consistent (i.e., gender constancy). During this age period, children also begin to form stereotypes about physical features and activities (e.g., girls wear dresses and boys play with trucks). With more cognitive sophistication, children around 6 years of age additionally tend to stereotype more abstract qualities such as social roles (e.g., men are truck drivers) and psychological attributes (e.g., women are nice). Furthermore, as children mature cognitively, they may show more flexibility in their gender attitudes and inferences during middle childhood and adolescence (Liben & Bigler, 2002; Serbin et al., 1993). Finally, recent research suggests that, around 10 years of age, girls can demonstrate awareness of gender discrimination (Brown & Bigler, 2004).

### *Social–Structural Influences*

To identify possible social–structural moderators, it is useful to compare different cultures. In this regard, Baxter and Kane's (1995) cross-national survey indicated that traditional attitudes were correlated with women's degree of dependence on men in the soci-

ety. For example, egalitarian attitudes were more likely in countries in which wives and husbands have relatively equal economic power. The influence of social-structural factors also can be seen in studies looking at variations within North America. Parents' gender attitudes may differ according to education, socioeconomic status, dual- or single-parent status, and race/ethnicity (see Leaper, 2002). Finally, there is also evidence for historical changes in North America. During the last three decades of the 20th century, adolescent girls' and young women's gender-role self-concepts steadily became less traditional (Twenge, 1997b) and their gender attitudes steadily became more egalitarian (Twenge, 1997a). Although research suggests that North American males have generally become more flexible in their views about women's roles (Twenge, 1997a), they still tend to view themselves in gender-typed ways (Twenge, 1997b).

### *Media Influences*

The mass media is an important source for acquiring cultural information about gender. In the United States, there has been a modest decrease in gender stereotyping in children's television over the years (Thompson & Zerbinos, 1995). Nonetheless, gender stereotypes are pervasive in most of children's television programming. First, children will likely infer that men have more prominence and status in society than do women through the overwhelming overrepresentation of male characters in most cartoon series. In addition, the characters in TV cartoons typically reflect gender-stereotyped roles and attributes (Leaper, Breed, Hoffman, & Perlman, 2002; Thompson & Zerbinos, 1995). Thus, perhaps it is no surprise that children's amount of television viewing is positively correlated with their own degree of gender stereotyping. What children watch may be guided by their gender schemas, and what they watch may shape their gender beliefs (see Calvert & Huston, 1987; Ward & Friedman, 2006).

Other media such as children's books also perpetuate gender bias and stereotypes. Although a more gender-equitable representation of characters in North American children's books has occurred over the years, males still tend to be more common in titles and pictures (Gooden & Gooden, 2001). Also, children's books typically portray characters in terms of gender-stereotyped personality traits and activities; this occurs even in many books labeled as "nonsexist" (Diekman & Murnen, 2004). Finally, many reading materials perpetuate gender stereotypes through their common use of sexist language. Although there has been a cultural shift in most English-speaking countries away from the generic use of masculine pronouns ("he") and nouns ("man"), these forms are still prevalent in many books. Several studies indicate that the use of masculine generics is not gender-neutral in its impact on children's (and adults') thinking. For example, children are much more likely to imagine male than female characters when the masculine generic is used (Hyde, 1984).

### *Parental Influences*

In a meta-analysis, Tenenbaum and Leaper (2002) reviewed studies testing the relation between parents' and children's gender self-concepts and attitudes. Across studies, there was a small but statistically significant association ( $r = .17$ ) between parents' gender attitudes and children's gender schemas. The small magnitude of the correlation is likely due to the indirect pathway between parents' and children's attitudes. That is, parents must

communicate their attitudes in a way that their children can learn them (Leaper & Bigler, 2004). First, parents act as role models that can inform children's developing ideas and values (see Leaper, 2002). However, parents' attitudes and their actions are not always consistent, and therefore their attitudes may not be transparent. Second, parents may indirectly express their attitudes when they encourage gender-typed behaviors and activities. For example, when parents regularly provide gender-typed toys, they also convey a set of expectations and attitudes. Finally, some parents may convey their gender attitudes by stating or endorsing stereotypes. For instance, Gelman, Taylor, and Nguyen (2004) found that mothers often used generic statements about gender, such as "Girls play with dolls" or "Boys play with trucks." The frequent use of these generics may transmit and reinforce gender stereotypes in children.

### *Teacher Influences*

Teachers can moderate the salience of gender in children's daily lives and thereby have an impact on the development of gender-related self-concepts and attitudes. Bigler's (1995) research offers a compelling illustration. In one classroom, the teacher was instructed to use children's gender in explicit ways to organize classroom activities (i.e., gender as a functional category). In a comparison classroom, the teacher received no specific directions. Significant increases in gender stereotyping occurred 4 weeks later in the classroom where gender was used as a functional category but not in the other classroom. In addition to affecting children's general level of stereotyping, teachers can influence children's gendered views regarding play activities, academic domains, and athletics (reviewed later).

### *Peer Influences*

Peers have a major impact on the development of children's gender self-concepts, stereotypes, and attitudes. We address their influence in subsequent sections on children's activities and social relationships.

## **Play**

Although there is variability across individuals, average gender differences in play preferences are reliably observed (see Leaper, 1994; Maccoby, 1998). Preferences for gender-stereotyped toys typically emerge between the ages of 1 and 2 years. Girls are more likely than boys to prefer dolls, cooking sets, and dress-up materials. Boys' gender-typed toy preferences include cars and trucks, tools and other building toys, and sports equipment. Once children begin engaging in pretend play between 2 and 3 years of age, girls and boys tend to differ in the themes that they enact. Girls' sociodramatic play commonly focuses on domestic situations (e.g., pretending to play house). In contrast, boys' fantasy play is more likely to involve acting out action-adventure stories with a pursuit-and-conquest theme (e.g., pretending to play war or superheroes). Furthermore, as many boys get older, their continued interest in aggression and adventure themes is expressed through play with video games that simulate violence or sports.

Play activities are important contexts for the socialization of gender because they provide opportunities for practicing particular behaviors. With repeated practice, play



behaviors are likely to have an impact on children's developing expectations, preferences, and abilities (Bussey & Bandura, 1999; Huston, 1985; Leaper, 2000b). In general, masculine-stereotyped play activities allow practice in self-assertive behaviors (e.g., task completion and competition), whereas feminine-stereotyped play activities offer practice in behaviors that are simultaneously affiliative and assertive (e.g., nurturance and collaborative discourse). These differences contribute to the development of gender-typed social norms (reviewed later).

### *Social-Structural Influences*

Researchers generally find average gender differences in toy and play preferences among children across different cultures. This even includes highly gender-egalitarian countries such as Sweden (Nelson, 2005). As described next, however, there are some factors that may account for variations within a given culture.

### *Media Influences*

Television advertisements for children's toys both model and reinforce gender-typed play for girls and boys (Signorielli, 2001). The gender of the child actors in TV commercials underscores the message that certain toys are either "for boys" or "for girls." Moreover, the actors model gender-typed behaviors. Boys in the ads are shown enjoying action-oriented and aggressive behaviors. In contrast, girls in the ads are depicted acting nurturant toward dolls as well as showing interest in fashion and beauty. There is clear evidence that TV advertisements are effective: For example, in an experimental study, children's TV viewing was directly related to their subsequent toy requests (Robinson, Saphir, Kraemer, Varady, & Haydel, 2001).

### *Parental Influences*

Parents are typically the first social agents to have influence over girls' and boys' play behaviors and preferences. In a meta-analysis of studies on North American parents' gender typing across 19 socialization areas, Lytton and Romney (1991) found that encouraging gender-typed activities was the manner whereby parents most reliably treated daughters and sons differently ( $d = .34$  for mothers;  $d = .49$  for fathers). Indeed, parents commonly purchase gender-stereotyped toys for their children within a few months after the child's birth—prior to when children express gender-typed toy preferences themselves (see Leaper, 2002). By the child's first birthday, there are toys clearly designated as "for girls" or "for boys." Once children form gender-typed toy preferences, parents' and children's biases may work in synergy. By around 2 or 3 years of age, children begin to plead for particular toys. Parents, in turn, typically reinforce children's developing toy preferences (e.g., Robinson & Morris, 1986).

There are a few factors worth noting that can moderate the likelihood of parents' gender-typing of children's play (and possibly other behavioral outcomes). First, parents tend to be stricter enforcers of gender conformity in sons than daughters (see Leaper, 2002). Second, parents with traditional gender attitudes may be more likely than parents with egalitarian attitudes to encourage gender-typed play in their young children (Fagot, Leinbach, & O'Boyle, 1992). Finally, fathers are more likely than mothers to have tradi-

tional gender attitudes and are also more likely to encourage gender-typed play (see Leaper, 2002; Lytton & Romney, 1991). Perhaps for these reasons, boys tend to be especially sensitive to their fathers' disapproval of cross-gender-typed play (Raag & Rackliff, 1998).

### *Teacher Influences*

Teachers contribute to the gender-typing of children's play, for example, when they label toys or activities as for one gender or the other (Serbin, Connor, & Iler, 1979). By the same token, when teachers assign girls and boys to similar activities, gender differences in social behavior can be reduced (e.g., Carpenter, Huston, & Holt, 1986). Finally, as seen with parents, many teachers are more tolerant of cross-gender-typed play behavior among girls than boys (Fagot, 1981; Serbin et al., 1979).

### *Peer Influences*

In many respects, peers are the most important influences on children's gender-typed play. First, same-gender peers are models that children use to infer gender-normative behavior. Children are more likely to play with a gender-neutral toy—or even a cross-gender-typed toy—after observing a same-gender (vs. cross-gender) model (e.g., Bussey & Perry, 1982). In addition to modeling gender-typed play, peers are vigilant in their enforcement of traditional gender norms. Peers generally disapprove of cross-gender-typed behavior (Martin, 1989), and children quickly infer what their peers consider acceptable and unacceptable. These expectations become internalized as personal standards that guide children's behavior (Bussey & Bandura, 1999). If same-gender peers act as socialization agents that transmit and enforce gendered norms, one would expect that the amount of same-gender peer affiliation would predict relative degrees of gender-typed play. Indeed, this association has been documented in prior studies (Fagot, 1981; Martin & Fabes, 2001). Martin and Fabes (2001) observed what they called a social dosage effect: The more that preschool children played with same-gender peers from fall to spring, the more likely they showed increases in gender-typed play behavior.

Research suggests that groups have a stronger socializing influence than dyads (see Harris, 1995). Therefore, it is pertinent to note that researchers find boys are more likely than girls to belong to established peer groups, whereas girls are more apt to play in dyads or unstable peer groups (see Benenson, Apostoleris, & Parnass, 1997; Leaper, 1994). Thus, socialization in stable peer groups may be more pervasive for boys than girls, and this may contribute to stronger conformity pressures on boys during childhood.

### *Biological Influences*

Research suggests that some gender-typed play preferences are partly influenced by the organizational influence of sex-related hormones on the nervous system during prenatal development (Berenbaum, 1998; Collaer & Hines, 1995). During prenatal development, genetic males are typically exposed to higher levels of androgen whereas genetic females are typically exposed to higher levels of progesterone and estrogen. However, there is variability within each sex in prenatal exposure to these hormones. One investigative strategy is to test whether variations in certain prenatal hormones are correlated with later behavior differ-

ences. For instance, in cases of congenital adrenal hyperplasia (CAH), there are atypically elevated levels of androgen during prenatal development. Although CAH does not appear to have discernible effects on the gender development of boys, there is a possible impact on girls. In some studies, girls with CAH were significantly more likely than other girls to demonstrate preferences for masculine-stereotyped play activities such as sports. At the same time, CAH girls appeared less interested in feminine-stereotyped play activities such as doll play (see Berenbaum, 1998; Collaer & Hines, 1995).

## **Sports**

Participation in sports is correlated with physical self-efficacy, positive body image, high self-esteem, peer acceptance, and academic success for both boys and girls (e.g., Daniels & Leaper, in press; Marsh & Kleitman, 2003). However, because sports are strongly associated with cultural constructions of masculinity, girls and women have often been excluded from athletics. Furthermore, as described below, the macho sports culture can foster sexist, misogynistic, and homophobic attitudes in boys.

### *Social-Structural Influences*

The importance of sport in men's lives increased over the last century in Western societies in response to changes in the male role. At the beginning of the 20th century, boys' daily activities shifted from helping on the family farm to sitting in female-headed school classrooms. Also, physical strength became less relevant for most occupations. Organized sports countered the fear that boys and men were becoming feminized (see Messner, 1992). Moreover, contact sports, such as boxing and football, legitimized men's force and violence as natural and acceptable (Messner, 1992). Accordingly, studies suggest that male children and adolescents who participate in contact sports are more likely to view aggressive behavior as legitimate (Conroy, Silva, Newcomer, Walker, & Johnson, 2001). Furthermore, the acceptance of violence in the masculine sports culture can extend to sexual violence, which is more likely among male athletes than nonathletes (Benedict & Klein, 1998).

The strong tie between sports and masculinity has also meant the exclusion of girls and women in sports in most societies. Although women regularly participated in North American college athletics at the outset of the 20th century, a backlash against girls and women in sports emerged in the 1920s (Messner, 1992). However, American girls' participation in sports dramatically increased after the 1972 enactment of Title IX of the U.S. Civil Rights Act. From the time of Title IX's passage, girls' participation in high school sports has increased from 1 in 27 to 1 in 2.5. In comparison, boys' participation has remained 1 in 2 during the last 30 years (Women's Sports Foundation, 2004). Despite American girls' increased participation in sports over the years, Lirgg's (1991) meta-analysis indicated that girls tend to have lower self-efficacy in physical activity compared to boys ( $d = .40$ ).

### *Media Influences*

The media both reflects and perpetuates society's notions of sports and gender. Coverage of men's sports has long dominated print media (e.g., Fink & Kensicki, 2002) and televi-

sion (e.g., Adams & Tuggle, 2004) in America. For example, one recent analysis indicated less than 10% of total sports media was devoted to female athletes (Koivula, 1999). Furthermore, when women athletes are profiled in the media, TV producers or magazine editors often go out of their way to underscore their feminine side by depicting them as sexual objects or portraying their heterosexual personal lives (e.g., Knight & Giuliano, 2003).

The media perpetuates quite a different image of men in sports. Whether it is either glorifying the physical violence that football players inflict on one another, highlighting basketball players' insults to one another on the court, or replaying the fights between hockey players—TV producers regularly portray professional male athletes as physically aggressive and dominant. Thus, critics argue that the media fuels the desire for violence in men's sports (Tenenbaum, Stewart, Singer, & Duda, 1996).

### *Parental Influences*

Parents often have gender-stereotyped attitudes regarding their children's sports involvement. For example, many parents view their sons as more competent at sports than their daughters (Fredricks & Eccles, 2002). These parental beliefs may become self-fulfilling prophecies. Longitudinal research indicates that parents' evaluations of their children's athletic ability predict changes over time in the children's sports-related competence beliefs and values (Fredricks & Eccles, 2002). Parents generally—but fathers especially—tend to encourage active forms of play with sons more than daughters (see Leaper, 2002). However, as support for girls' sports involvement has increased in the United States, more fathers and mothers are promoting physical activity in their daughters (Weiss & Barber, 1995). Indeed, parental support is correlated with girls' level of sports involvement (Lewko & Ewing, 1980).

### *School and Coach Influences*

Few schools offer the same degree of recognition for scholastic accomplishments as they do for sports achievement. In his classic study of adolescent culture, Coleman (1961) described the ways that many high schools are organized around athletic contests more than scholastic achievements. For example, schools typically display sports trophies in their hallways; they provide jackets with the school letter to athletes; and the major event each fall is the homecoming for the first football game. Thus, male athletes typically hold the highest social status in most North American high schools (Suitor & Reavis, 1995).

Coaches can have a significant impact on youth's athletic development. In addition to influencing their skill development, coaches also set a tone for the social norms in the sports culture. For instance, one study found that adolescent soccer players were more likely to endorse the use of aggression when they viewed their coaches as condoning such behavior (Guivernau & Duda, 2002). Also, many coaches enforce conformity in their male players through the use of misogynistic and homophobic comments (Schissel, 2000).

### *Peer Influences*

Sports are a social context in which children can gain a sense of belonging with teammates and obtain prestige among their peers—but also in which children can suffer the

pressures of peer conformity. When surveyed, girls as well as boys cited social benefits for maintaining their involvement in high school sports. However, girls were more likely than boys to highlight the social costs as motives for decreasing their involvement or quitting (Patrick et al., 1999). Although high school girls are more likely to gain social status through sports than in previous decades, research suggests that physical appearance and sociability are stronger predictors of girls' peer status (Suitor & Reavis, 1995). During adolescence, female athleticism may conflict with gender-typed girls' notions of femininity and heterosexuality (Guillet et al., 2000). Thus, girls' continued athletic participation into adolescence requires overcoming traditional gender stereotypes and homophobia. Perhaps for this reason, one study reported that sports involvement was more strongly tied to peer support in girls than boys (Weiss & Barber, 1995). As girls' sport participation increases in society, gender-role conflicts in athletics should become less problematic (Suitor & Reavis, 1995).

For boys, athletics has consistently been associated over the years with popularity and prestige (Suitor & Reavis, 1995). However, there are often costs that go along with boys' sports involvement. The male sports culture has traditionally emphasized macho norms emphasizing aggression, dominance, sexism, and homophobia (described earlier). Teammates enforce these social norms with one another. For example, in a study of a seventh- and eighth-grade football team, older players were observed to pressure younger players to adhere to gender-typed norms through shaming and other socializing techniques (Olrich, 1996). Another part of the macho pose involves hiding one's feelings. Accordingly, sports participation is negatively related to friendship intimacy among boys—but not among girls (Zarbatany, McDougall, & Hymel, 2000).

### **Social Interaction and Social Norms**

As described earlier, gender identity develops around 3 years of age. Around the same age, children begin to show a preference for same-gender peers. This preference steadily increases until around 6 years of age and then remains stable until the onset of adolescence (Maccoby, 1998). To the extent that girls' and boys' peer groups emphasize different activities and patterns of social interaction, gendered social norms and goals tend to emerge (see Leaper, 1994; Strough & Berg, 2000). In particular, different norms are often seen in the expression of *assertion* (independence, physicality, and competition) and *affiliation* (interpersonal sensitivity, responsiveness, and exclusivity). Accordingly, girls and boys have been described as developing in different "gender cultures" (Maccoby, 1998; Maltz & Borker, 1982). Boys' gender-typed play and social relations foster the development of social norms stressing self-assertion *over* affiliation. In contrast, girls' gender-typed play and relationships cultivate the development of social norms emphasizing the coordination of affiliation *with* assertion. That is, contrary to some stereotypes, research does *not* support the notion that girls are unassertive; rather, their social interactions commonly involve the coordination of affiliative and assertive goals (see Leaper, 1991; Leaper & Smith, 2004; Leaper, Tenenbaum, & Shaffer, 1999). Behaviors that are simultaneously assertive and affiliative have been called collaborative; examples include initiatives for joint activity ("Let's play house") and elaborating on the other speaker's comments.

In their meta-analysis of gender differences in children's language use, Leaper and Smith (2004) identified statistically significant average gender differences in children's use

of assertive and affiliative functions when interacting with peers. Overall, assertive speech was significantly more likely among boys than girls, although the magnitude of the average difference was negligible ( $d = .11$ ); a larger difference occurred when directive speech ( $d = .25$ ) was specifically measured. Conversely, overall affiliative speech was more likely among girls than boys ( $d = .28$ ). Furthermore, the effect size was substantially larger with respect to responsiveness ( $d = .45$ ), a specific form of affiliative speech that reflects being simultaneously affiliative and assertive (e.g., elaborating on the other's comment).

Gender-typed differences in the expression of affiliation and assertion tend to occur in particular interpersonal contexts. One of them is during conflict (Miller, Danaher, & Forbes, 1986; Rose & Asher, 1999). On the average, boys are more likely than girls to use power-assertive strategies aimed at confronting the other person (e.g., demands and threats) during conflict. Also, physical aggression is more likely among boys than among girls ( $d = .55$ , Archer, 2004). In contrast, girls are more likely than boys to use affiliative strategies aimed at reducing the conflict (e.g., changing the topic and seeking collaborative solutions). However, during adolescence girls are more likely than boys to use indirect forms of aggression ( $d = -.35$ , Archer, 2004), such as nonverbal social exclusion (see Underwood, 2003) and negative gossip (see Leaper & Holliday, 1995; Underwood, 2003).

Self-disclosure in intimate relationships is another relevant interpersonal context for observing gender-typed norms in the expression of affiliation and assertion. Self-disclosure as well as listener support each involve a combination of affiliation (e.g., sharing and showing support) and assertion (self-expression, providing thoughtful feedback). Self-disclosure is more likely among girls than boys during childhood (e.g., Rose, 2002) and adolescence (e.g., Shulman, Laursen, Kalman, & Karpovsky, 1997). Also, girls are more likely than boys to use active listening statements in childhood (Burlison, 1982) and emerging adulthood (Leaper, Carson, Baker, Holliday, & Myers, 1995).

### *Social-Structural Influences*

In their cross-cultural analysis, Wood and Eagly (2002) noted an association between adult roles in the society and the socialization of affiliation (nurturance) and assertion (autonomy and aggression). Childrearing practices emphasizing nurturance in girls more than boys were more likely in societies in which women were primary caregivers. Conversely, "socializing girls to be more aggressive and less obedient [occurred in societies with] egalitarian tendencies for women to own resources and exercise power" (Wood & Eagly, 2002, p. 717). Thus, the socialization of gender-typed social-interaction styles perpetuates traditional adult gender roles as well as power imbalances between men and women (Leaper, 2000b). That is, men's dominant status in society and their task orientation are enacted and maintained through the use of self-assertive strategies, such as directive and instrumental communication. Conversely, women's relatively subordinate status as well as their traditional role as caregiver are enacted through the use of affiliative strategies, such as showing support and agreement (Leaper, 1994, 2000a; Leaper & Smith, 2004).

### *Parental Influences*

Leaper, Anderson, and Sanders (1998) carried out a meta-analytic review of gender-related differences in parents' affiliative and assertive communication with their children.

With regard to modeling, fathers tended to use more assertive speech and mothers tended to use more affiliative speech. Specifically, fathers used significantly more directive ( $d = .19$ ) speech than did mothers. In contrast, mothers used significantly more supportive speech than did fathers ( $d = .23$ ). The meta-analysis also examined differences in mothers' language use with daughters versus sons. The findings suggest that mothers tended to emphasize interpersonal closeness more with daughters and to encourage autonomy more in sons: Mothers used significantly more supportive speech ( $d = .22$ ) with daughters than sons across age levels. In addition, mothers of school-age children used significantly less assertive speech with sons than daughters ( $d = -.18$ ). Longitudinal evidence suggests that how parents' express affiliation and assertion in their speech may affect gender-related variations in their children's psychosocial development (see Leaper et al., 1989).

### *Peer Influences*

Several features of the peer context can moderate the likelihood of gender differences in affiliative and assertive behavior. One of them is the type of activity in which the children are participating. In unstructured settings, children select from a variety of activities (e.g., a choice of toys); however, in structured settings, children are observed participating in the same activity (e.g., the same toy). In Leaper and Smith's (2004) meta-analysis, effect sizes associated with gender differences in children's affiliative speech were significantly larger in studies observing unstructured activities ( $d = .65$ ) than structured activities ( $d = .20$ ). (Leaper et al., 1998, observed a similar pattern regarding the influence of activity setting on mothers' use of affiliative speech with daughters vs. sons.) To the extent that boys and girls consistently participate in different activities, they are likely to exert affiliation and assertion differently (see earlier section on play). For example, Zabatany et al. (2000) found that adolescent boys' participation in communal activities was positively related to their friendship intimacy.

The children's familiarity with their interaction partners is a second contextual moderator of gender differences in social interaction. In Leaper and Smith's (2004) meta-analysis, the magnitude of gender differences in assertive speech was greater during interactions between strangers ( $d = .32$ ) than between familiar children ( $d = .11$ ). Gender differences in social behavior are more likely in unfamiliar situations because gender becomes a more salient characteristic for self-presentation (Deaux & Major, 1987). With strangers, children tend to fall back on gender stereotypes that influence their self-presentation concerns as well as their expectations about the other child (e.g., Banerjee & Lintern, 2000). With friends, however, children have had the opportunity to develop individualized styles of interaction with one another.

Group size is yet another factor that can moderate the likelihood of gender differences in social behavior. Research indicates that girls as well as boys are more competitive in larger groups and less competitive in dyads (Benenson, Nicholson, Waite, Roy, & Simpson, 2001). Boys' competitive and other power-assertive behaviors may thus be a function of the fact that they more typically congregate in larger groups than do girls.

Finally, the gender composition of the dyad or group is an important moderator of gender differences in social behavior. This is seen during conflict or self-disclosure contexts. Although girls may generally use conflict-mitigation strategies during disagreements with other girls, they tend to increase their use of power-assertive strategies during

disagreements with boys (e.g., Miller et al., 1986). Conversely, boys have not been found to increase their use of conflict-mitigation strategies during disagreements with girls. Thus, to exert their influence in mixed-gender company, girls may learn they must play by “the boys’ rules” rather than expect the reverse (see Leaper, 1994, 2000b). Adaptation for girls has often meant becoming fluent in both styles. In an analogous manner, many women—but relatively fewer men—develop the flexibility to be assertive in the work environment while also being nurturant with their children and spouses.

Partner gender can also affect gender-related differences in self-disclosure. Boys (as well as men) tend to turn to female partners to meet their needs for emotional support. In their meta-analysis, Dindia and Allen (1992) indicated that gender differences in observed self-disclosure were more likely in same-gender ( $d = .38$ ) than cross-gender ( $d = .19$ ) interactions. Whereas boys are reluctant to disclose to other boys, they are often willing to disclose to girls. The influence of the listener’s gender on boys’ willingness to disclose points to the impact of boys’ concern with appearing masculine with their male friends (see Leaper & Anderson, 1997; Tolman, Spencer, Harmon, Rosen-Reynoso, & Striepe, 2004). To the extent that adolescent boys spend most of their time with male friends, these self-presentation concerns may limit the kinds of social skills they exercise and develop. If boys avoid disclosing with one another, they also avoid opportunities to refine the social skills associated with being a supportive listener (Leaper et al., 1995). Thus, a difference in preference may develop into a difference in ability. As described in the next section, similar processes may affect girls’ and boys’ academic achievement.

### **Academic Motivation and Achievement**

Despite the dramatic influx of women into the labor force over the last 50 years, men are still disproportionately represented in high-paying and high-prestige occupations. This is true even when controlling for levels of education (U.S. Census Bureau, 2004). However, it might seem that women should be more successful than men. The majority (57%) of bachelor’s degrees in the United States are awarded to women (National Science Foundation, 2004). Furthermore, from elementary school and continuing into high school, girls tend to do better than boys in reading ( $d = -.29$ ) and writing ( $d = -.49$ ) (Hedges & Nowell, 1995; Nowell & Hedges, 1998).

Science and math are the academic areas in which boys have historically done better than girls. However, gender differences in mathematics and the life sciences have narrowed over the years in North America (Burkam, Lee, & Smerdon, 1997; Hyde & Kling, 2001; Nowell & Hedges, 1998). According to recent estimates, average gender differences among U.S. high school students in both life sciences ( $d = -.02$ ) and math ( $d = .15$ ) are negligible. In contrast, boys continue to do better than girls on the average in the physical sciences ( $d = .32$ ). More dramatic gender differences in science achievement are seen beyond the high school years. Of the bachelor’s degrees recently awarded in the United States, women accounted for 57% in biological sciences, and 48% in mathematics—but only 17% in physics and 20% in engineering (National Science Foundation, 2004). Men also dominate many science- and technology-related professions, including, for example, computer software engineers (75%) and electrical engineers (91%). Hence, gender differences in academic and occupational achievement steadily increase with age.

Children’s academic achievement and occupational aspirations are strongly related



to their competence-related expectations and values (Eccles & Wigfield, 2002; Hyde & Kling, 2001; Weinburgh, 1995). Perceived competence and expectations for success are strongly tied to motivation and performance (see Bussey & Bandura, 1999; Eccles & Wigfield, 2002). For example, self-perceived competencies predict academic outcomes such as participation and engagement in class (Dreves & Jovanovic, 1998). Furthermore, research suggests that adolescents' perceived efficacy—rather than their actual achievement—may better account for gender-typed career preferences (Bandura, Barbaranelli, Vittorio Caprara, & Pastorelli, 2001).

By the time they get to high school, children have stereotypes about certain academic subjects—such as the expectations that boys are better in science and math (Guimond & Roussel, 2001). These stereotypes are paralleled by average gender differences in self-perceived competence and interest. Thus, girls have higher self-efficacy and interest in reading and writing than do boys. In contrast, boys have higher interest and self-efficacy in math, the physical sciences, and computer science than do girls (see Eccles, Barber, Jozefowicz, Malenchuk, & Vida, 1999; Evans, Schweingruber, & Stevenson, 2002; Hyde & Kling, 2001; Weinburgh, 1995; Whiteley, 1997). Furthermore, recent research on stereotype threat indicates that once children internalize stereotypes, their performance in cross-gender-typed areas may decline in situations in which the salience of gender is increased (see Guimond & Roussel, 2001; Hyde & Kling, 2001).

Children's achievement is also affected by their values. In general, girls may be more likely than boys to experience conflicts between their academic achievement and other goals. First, girls are more likely to seek a balance between family life and career plans (Mahaffy & Ward, 2002). Second, girls' concerns about sexual attractiveness can sometimes interfere with their academic achievement (Suitor & Reavis, 1995). Finally, girls tend to be more interested in occupations that have interpersonal or helping goals (Morgan, Isaac, & Sansome, 2001); perhaps partly for this reason, girls who do well in science are more likely to go into medical and health science fields than other scientific or technological areas (Tilleczek & Lewko, 2001).

### *Social–Structural Influences*

Socialization practices are designed to prepare children for the dominant adult roles and opportunities that are available in a given cultural community (Wood & Eagly, 2002). To the extent that gender divisions exist in the society, gender-differentiated socialization practices follow (Leaper, 2000b; Wood & Eagly, 2002). For example, in a cross-national study, Baker and Jones (1993) found that when women had greater access to jobs and higher education, there were fewer gender-related differences in socialization practices and math achievement.

There are also variations within a given society. Paralleling changes in American women's roles over the last four decades, there has been a steady increase in the number of women in the United States receiving bachelor and doctoral degrees in science and engineering (National Science Foundation, 2004). Also, socioeconomic status within North American society is a moderator of gender differences in academic achievement. That is, gender differences in academic achievement tend to be less likely among children in higher-income neighborhoods or among those with highly educated parents (e.g., Burkam

et al., 1997). Thus, in general, when girls and women have access to resources, gender differences in status and achievement are less likely.

### *Parental Influences*

Parents' attitudes and beliefs predict gender-related variations in children's academic self-concepts and achievement. To illustrate, we note the longitudinal research of Eccles, Freedman-Doan, Frome, Jacobs, and Yoon (2000). In their study, parents generally endorsed the cultural stereotype that mathematics was more natural for boys than for girls. Parents also tended to underestimate girls' math ability and to overestimate boys' ability. The researchers found that, over time, girls' own self-perceptions reflected the parents' expectations. When parents had low expectations of their daughters, the girls increasingly lost confidence in their mathematics skills, and they lowered their evaluations of the usefulness of mathematics for their future. In high school, the girls spent fewer years studying mathematics than the boys did. This research highlights ways that parents' gender attitudes can influence their children's academic self-concept, choices, and achievement. Indeed, parents' perceptions of their children's abilities are better than children's actual grades in predicting children's academic self-efficacy years later (e.g., Bleeker & Jacobs, 2004).

How are parents' expectations communicated to their children? One possible way is through their differential treatment of sons and daughters. This was seen when Tenenbaum and Leaper (2003) investigated parents' speech during various assigned teaching tasks with their 11- or 13-year-old child. During a physical science task, fathers of sons tended to use more explanations and scientific vocabulary than did fathers of daughters. (There were no significant differences between these girls' and boys' interest or achievement in science.) In contrast, during life science and nonscience tasks, fathers' teaching talk was similar with sons and daughters. Also, mothers' teaching talk was similar with daughters and sons in all tasks. Thus, fathers may be especially influential in encouraging physical science interest and achievement in sons.

Not all parents act in gender-typed ways, and Updegraff, McHale, and Crouter's (1996) research suggests that girls do better academically when they have gender-egalitarian parents. The impact of egalitarian parental roles was especially strong on girls' (but not boys') academic achievement during the transition to middle school. Girls with egalitarian parents maintained higher levels of academic achievement in middle school (especially in math and science) compared to girls with traditional parents.

Parenting practices may also be related to some of the academic difficulties that are more common among boys. In particular, poor parental monitoring and ineffective discipline are associated with increases in boys' antisocial behavior, which in turn is related to academic disengagement (DeBaryshe, Patterson, & Capaldi, 1993). Research also suggests that parents' level of education is positively related to boys' verbal achievement (Ferry, Fouad, & Smith, 2000) and school adjustment (DeBaryse et al., 1993).

Finally, boys' school adjustment and academic achievement may be affected by the greater gender-typing pressure that parents (and others) place on boys than girls during childhood. On the one hand, these pressures may push boys to excel in masculine-stereotyped domains such as science or sports (Andre, Whigham, Hendrickson, & Chambers, 1999).

On the other hand, gender-role strain may create a conflict between appearing tough and being a good student (Renold, 2001).

### *Teacher Influences*

Teachers can have a significant impact on children's academic interest, self-efficacy, and achievement. First, teachers are role models. For example, having women as science teachers may increase girls' interest in science careers (Evans, Whigham, & Wang, 1995). In addition, the quality of girls' relationships with their teachers predicts the importance that girls place on doing well in school (Alban Metcalfe & Alban Metcalfe, 1981). These results may be related to observations that girls are more likely than boys to work and play near teachers at school (see Carpenter et al., 1986). Carpenter and her colleagues argued that because girls experience more adult-structured activities at school and at home, they engage in more compliant behavior (e.g., Carpenter et al., 1986). Compliance to the teacher, in turn, may be related to adopting behaviors that facilitate school success (e.g., listening attentively and following directions). Paradoxically, although some teachers may favor compliant girls, the research suggests that many teachers give more attention to boys than to girls in the classroom (e.g., Altermatt, Jovanovic, & Perry, 1998). In addition, teachers often have stereotyped expectations about girls' and boys' abilities in particular subject areas (e.g., Shepardson & Pizzini, 1992). These biases are important because teachers' expectations can act as self-fulfilling prophecies that affect children's later achievement (see Hyde & Kling, 2001; Jussim, Eccles, & Madon, 1996).

### *Peer Influences*

Peers can influence children's academic achievement in many ways both in and out of the classroom. First, the types of play activities that children practice may partly contribute to the development of later gender differences in academic achievement. Many of the activities favored by boys—including construction play, sports, and video games—provide them opportunities to develop their spatial abilities as well as math- and science-related skills (Serbin, Zelkowitz, Doyle, Gold, & Wheaton, 1990; Subrahmanyam & Greenfield, 1994). The types of play more common among girls—such as domestic role play—involve back-and-forth conversation and are therefore more likely to exercise the participants' verbal skills (Taharally, 1991).

In addition to being playmates, peers serve as important sources for social comparison that children often use to evaluate their own achievement and occupational aspirations (Young et al., 1999). Discussions with peers about academic success, in turn, are related to later academic self-perceptions (Altermatt, Pomerantz, Ruble, Frey, & Greulich, 2002). As explained earlier in the chapter, norms emerge in same-gender peer groups that shape children's social identities. Particular social identities can be compatible with certain academic and occupational pursuits than others. In a revealing study, Bell (1989) interviewed academically gifted third- through sixth-grade girls regarding their perceived obstacles to school achievement. The girls' issues pertained mainly to perceived gender-typed pressures. For instance, many girls stated they did not want to be viewed as either overly competitive or bragging about their accomplishments. Another barrier they saw interfering with their achievement was their concern with physical appearance. Thus, girls' traditional concerns with acting nice and looking pretty may lead them to downplay

their academic accomplishments. By way of contrast, Stake and Nickens (2005) found that girls who had supportive peer experiences in science demonstrated positive expectations for their science achievement 6 months later.

In an analogous manner, the traditional masculine peer culture may contribute to many boys' difficulties in school adjustment and academic achievement. In many communities, boys experience a conflict between their need to maintain an image of masculinity based on power and dominance versus their perceptions of academic work and success as feminine pursuits (Alban Metcalfe & Alban Metcalfe, 1981; Renold, 2001; Van Houtte, 2004). For many boys, getting along with the teacher and doing well in school are viewed as not "cool."

### *Biological Influences*

As noted at the beginning of the chapter, sex-related hormones can influence brain organization and functioning during development. With regard to gender differences in cognitive abilities, some researchers have considered the possible influences of sex-linked hormones during prenatal development or at puberty. For example, there is tentative evidence that prenatal androgen levels are positively related to the development of spatial ability (see Halpern, 2000). (Spatial ability, in turn, is related to mathematical reasoning.) However, in her comprehensive book on sex differences in cognitive abilities, Halpern (2000) cautions that "much more research is needed before we can understand how, when, and why prenatal hormones exert their influence" (p. 164). In addition, she concludes that there is no clear evidence that hormonal changes at puberty are responsible for gender differences in cognitive abilities. Given the small magnitude of average gender differences in academic performance (reviewed earlier), biological predispositions cannot account for the large discrepancy between women and men in science and math-related careers. Instead, according to the bent-twig hypothesis, social factors may exaggerate small biological predispositions in ability and thereby create the large gender differences in academic achievement seen later in development (see Halpern, 2000).

### **Household Labor**

Dramatic transformations in the American family have occurred during the last 50 years. For the most part, however, it is the woman's role that has undergone change. Married women typically juggle both career and family work. In contrast, married men's contributions to child care and housework have shown only modest average increases over the years (Coltrane, 2000). Besides sending messages to children about gender roles, shared parental labor predicts couples' relationship satisfaction (Risman & Johnson-Sumerford, 1998) and may be related to positive parenting practices (Sabattini & Leaper, 2004). Consequently, we consider possible developmental influences on adult gender differences in household work. In particular, we review differences in girls' and boys' participation in household chores.

### *Social-Structural Influences*

The degree and the manner to which daughters and sons are assigned household work are related to the parents' socioeconomic level, marital status, employment, family size, and

cultural background (Cunningham, 2001; Hilton & Haldeman, 1991). In general, when family resources are limited (e.g., low income, single parenthood, and large family size), children are more likely to be assigned household chores—with daughters especially likely to be assigned child-care responsibilities. Furthermore, in cultures in which there is a traditional division of labor between women and men, childrearing practices are more likely to encourage nurturance in girls more than boys (see Wood & Eagly, 2002). Thus, assigning children to gender-typed household chores both reflects and perpetuates gender-differentiated roles in society (Etaugh & Liss, 1992).

### *Parental Influences*

Studies of children's household work in North America indicate a few patterns pertinent to gender socialization. First, mothers and fathers typically model a traditional division of labor in their own household work (Hilton & Haldeman, 1991). Some studies indicate that children's own attitudes about gender-typed household chores may be influenced by the role models that parents present to them. For example, in one investigation, adolescents of employed mothers were less likely to hold traditional views about the division of household labor than were adolescents of homemaker mothers (Gardner & LaBreckque, 1986). Also, another study indicated that egalitarian role sharing was more likely among married women if their mothers' had been employed when they were growing up (Cunningham, 2001).

A second pattern in the research literature is that parents tend to assign children gender-typed chores. Most notably, parents typically allocate child care and cleaning to daughters, and consign maintenance work to sons (Antill, Goodnow, Russell, & Cotton, 1996). The types of chores assigned to children may affect their development. Of particular note, children's involvement in family-care work is positively related to their prosocial development (Grusec, Goodnow, & Cohen, 1996). However, a third point that comes across in the literature is that girls are more likely than boys to be assigned household tasks during childhood and adolescence (McHale, Bartko, Crouter, & Perry-Jenkins, 1990). In this way, women's relegation to household work begins in childhood.

Finally, the gender-typed assignment of household chores imparts lessons to children about women's and men's rights and responsibilities. Emler and Hall (1994) argued that children's experiences may contribute to their later notions of entitlement and obligation with regard to household work. To the extent that daughters are assigned more household work than sons, traditional expectations about the division of labor are fostered. Thus, girls' and boys' participation in different household chores in childhood can be viewed as training for later role and status differences in adulthood (see Leaper, 2000b; Wood & Eagly, 2002).

## **CONCLUSIONS**

The foregoing review has highlighted some of the important ways that gender is socialized from infancy into adolescence. We reviewed areas of socialization that have some of the most important consequences on adult roles and functioning. As our presentation has emphasized, average gender differences in adult occupational roles and achievement may largely stem from their childhood play behaviors and academic experiences. Similarly,

gender-related variations in intimacy and family roles in adulthood may follow from differences that girls and boys tend to experience in play activities, peer relations, and household responsibilities. Men's dominance and sexist practices also can be traced back to children's gender-typed interactions with peers during play, sports, and everyday interactions. Although these patterns of gender development tend to occur, our review suggests that they are not inevitable outcomes.

We have emphasized the desirability as well as the potential for gender equality. Accordingly, most of our emphasis was on social-structural, social-interactive, and cognitive-motivational processes. We do *not* dispute the additional influences of sex-related biological factors. However, rather than focus on biological constraints, we have stressed the human capacity for behavioral adaptation in relation to existing environmental constraints or opportunities (Leaper, 2000b; Wood & Eagly, 2002). In general, girls and boys act in similar ways when provided similar opportunities and encouragement.

Many societies are gradually moving toward gender equality. To illustrate, we point to the increased popularity of programs in many postindustrial societies aimed at reducing gender bias in schools as well as the closing gap between women and men in occupational achievement. It is not uncommon for children to be exposed to counterstereotyped role models and practices. For example, in many parts of the world, children are now likely to see women in positions of power in government, industry, and education. Also, in some places, children are increasingly likely to observe men as caregivers. As the dialectical model of development postulates, changes in society affect our children's development, and changes in how our children develop later transform society (Riegel, 1976).

#### NOTE

1. Cohen's  $d$  is an index of effect size that reflects the magnitude of difference between two groups in standard deviation units. Effect sizes are generally considered negligible when  $d < .2$ , small when  $d > .2$ , medium when  $d > .5$ , and large when  $d > .8$  (Cohen, 1988).

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