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Communication Patterns of African American Girls and Boys from Low-Income, Urban Backgrounds

Campbell Leaper, Harriet R. Tenenbaum, and Tani Graham Shaffer

This study investigated gender effects on the conversational strategies used among 106 African American children (*mean age = 7 years*) from urban, low-income family backgrounds. Same- and mixed-gender pairs of children from the same grade level in an inner-city school were provided with toy bear puppets and asked to play together for 5 min. Conversations were coded using Leaper's Psychosocial Processes Coding Scheme, which classifies communication acts as either collaborative, controlling, informing, obliging, or withdrawing. Girls and boys were more similar than different. However, gender-related variations were found. Boys were more likely than girls to use controlling acts and domineering exchanges in same-gender pairs but not in mixed-gender pairs. Girls were more likely than boys to use a combination of collaborative and informing acts. For partner gender effects we found that controlling acts and domineering exchanges were less likely—whereas informing acts were more likely—to take place when children were matched with a girl than when they were matched with a boy. Findings replicate many of the gender effects on communication style reported in a prior study (Leaper, 1991) that used a similar procedure and coding strategy with a sample of middle-income children from mostly European American backgrounds.

INTRODUCTION

The present study investigated gender effects on African American children's communication style. Gender-related variations in communication have interested the general public and social scientists alike. A review of best-seller lists typically reveals at least one title purporting to explain how and why women and men interact differently (e.g., Tannen, 1990). Researchers have similarly devoted much attention to the topic of gender and relationships (e.g., Maccoby, 1998). As decades of research have documented, gender stereotyping is pervasive in children's peer interactions. By the third year of life, children typically favor same-gender peer affiliations as well as gender-typed play activities and social styles of interaction (see Leaper, 1994; Maccoby, 1998; Ruble & Martin, 1997, for recent reviews). Prior studies carried out with mostly middle-class, European American children indicated that girls were more likely than boys to use communication strategies emphasizing collaboration—that is, the coordination of self-assertion and affiliation. In contrast, boys were more likely than girls to use communication strategies emphasizing dominance—that is, an unmitigated emphasis on self-assertion (see Leaper, 1994, for a review). These gender-typed patterns of social interaction during childhood may both reflect and perpetuate the types of gender inequities seen in adulthood. In particular, boys' greater emphasis on competition, status, and dominance appears to parallel the greater status and power typically associated with men. Conversely, girls' greater concern with social sensitivity and interper-

sonal harmony is compatible with the supporter and caregiver roles traditionally associated with women within the family (Leaper, 1994).

Much of the research examining gender-related variations in children's social interactions has been based on descriptive ethnographies (e.g., Sachs, 1987; Sheldon, 1990). One of the few quantitative studies looking at girls' and boys' communication was carried out by Leaper (1991). Using the Psychosocial Processes Coding Scheme (PPCS), he classified children's speech acts into categories reflecting their degrees of assertion and affiliation (formerly referred to as influence and involvement, respectively). Four communication acts were analyzed: collaboration (high in both assertion and affiliation), control (high in assertion, low in affiliation), oblige (high in affiliation, low in assertion), and withdraw (low in both affiliation and assertion). Leaper examined 5- and 7-year-olds' proportional use of each communication strategy with either a same- or a different-gender peer during play with hand puppets. He also carried out sequential analyses to measure the likelihood of cooperative and domineering exchanges between speakers. *Cooperative exchanges* referred to instances when one speaker used collaboration either as an initiation or a response while the other speaker made either an obliging or a collaborative act (e.g., first child: "Let's play superheroes." Second child: "Okay, I'll be Batman and you can be Robin."). *Domineering exchanges* occurred when one speaker used control as either an initiation or a re-

sponse while the other speaker used either a withdrawing or an obliging act (First child: "You did that wrong." Second child: "Oh, okay."). Overall, girls were more likely than boys to use collaborative acts and cooperative exchanges, whereas boys were more likely than girls to use controlling acts and domineering exchanges. Most of the gender differences were more likely to be found among older than among younger children. Also, gender differences were found more between same-gender pairs than between mixed-gender pairs.

Leaper's (1991) findings are consistent with those of other researchers who looked more specifically at children's conflicts. For example, Miller, Danaher, and Forbes (1986) compared girls' and boys' strategies during conflicts. They found that boys were more likely than girls to use "heavy-handed" strategies (e.g., threats, physical force) that appeared aimed at imposing their viewpoint on the other participant. In contrast, girls were more likely than boys to use "conflict mitigation" strategies (e.g., proposals for compromise, indirect displays of anger) that were interpreted as influencing the other person while also trying to maintain harmony in the relationship. Sheldon (1992) similarly characterized girls as having a dual agenda involving the coordination of self-interest with the other's viewpoint.

The gender composition of the dyad or group is one of the factors that appears to moderate the incidence of gender-typed behavior. For example, Leaper (1991) observed fewer gender differences in mixed-gender pairs than in same-gender pairs. Miller et al. (1986) also found fewer gender differences within mixed-gender interactions. However, there was an underlying pattern of the girls accommodating to the boys more than vice versa. In particular, girls used more "heavy-handed" strategies in interactions with boys than in those with girls, but boys did not use more "conflict mitigation" strategies in interactions with girls than in those with boys. In these ways, gender-typed patterns of same- and cross-gender interaction may act as the foundation for later gender inequities in adulthood. The greater emphasis on control and dominance in boys' interactions may contribute to the perpetuation of male dominance, whereas the emphasis on affiliation and cooperation in girls' interactions may contribute to the reproduction of the woman's traditional role as caregiver and nurturer (Leaper, 1994). Alternatively, cross-gender relationships may provide a context for reducing gender typing (e.g., Kovacs, Parker, & Hoffman, 1996; Leaper, 1991; McDougall, 1998) and may help foster gender-egalitarian attitudes and roles in adolescence and adulthood (e.g., Leaper & Anderson, 1997).

The potential influence of cross-gender interactions on gender typing is also pertinent to recent concerns about gender inequities in academic achievement that begin to emerge during preadolescence. For instance, some researchers have suggested that single-gender classrooms can reduce gender inequities in academic achievement for girls (e.g., Lee & Bryk, 1986; Lee, Marks, & Byrd, 1994). Additionally, some educators have suggested that gender-segregated classrooms may help to improve African American boys' academic success (see McCluskey, 1993; Scott, 1994; Wilkerson, 1991). In contrast, other researchers have emphasized that there are potential benefits for both learning and reducing sexism when teachers organize cross-gender collaborative learning opportunities (Lockheed & Harris, 1984; Lockheed & Klein, 1985). Thus, studying ways in which girls and boys interact separately as well as together may shed some light on this debate.

One limitation of the Leaper (1991), Miller et al. (1986), and Sheldon (1990) studies is that they were based on samples of mostly middle-class European American children. In contrast, the present study was based on observations of African American children from low-income, urban backgrounds. Studying gender-related variations in a sample of African American children has both practical and theoretical advantages. First, studies of African American youth are underrepresented in the research literature. Moreover, there is some evidence that the number of studies of African Americans has declined over the years (Graham, 1992). Of the studies that can be found, most focus on problems such as delinquency, drugs, violence, teen pregnancy, academic failure, or other forms of "at risk" behavior. Relatively little attention has been devoted to normal processes of social interaction among either low- or middle-class African American children. More specifically, research on gender typing in African American children is "virtually nonexistent" (Binion, 1990, p. 487).

Second, studying gender within different sociocultural groups allows us to examine the generalizability of traditional gender-typed patterns. The research on gender and social interaction with children as well as adults has been criticized for the lack of cultural diversity reflected in the samples studied (Crawford, 1995; Freed, 1992). Indeed, some evidence suggests that gender differences in attitudes are less prevalent among African American children than among other ethnic groups. For example, some studies with preschool-aged children have shown less gender stereotyping among African American than among European American children (Albert & Porter, 1988; Bardwell, Cochran, & Walker, 1986). Similarly, studies

with adults indicate that African American women may be more likely than women from other ethnic groups to reject culturally dominant gender stereotypes (Binion, 1990; Dugger, 1988) and behaviors (Henley, 1995; Stanbeck, 1985). In contrast, studies suggest that African American men generally adopt traditional gender attitudes (Smith & Midlarsky, 1985) and behaviors (Stanbeck, 1985). The greater likelihood of finding nontraditional patterns among African American girls and women may be accounted for partly by the fact that most African American children are raised by a mother who is a single parent and employed outside of the home (Brookins, 1985; Cauce, Hiraga, Graves, & Gonzales, 1996; Reid, 1985). African American mothers may thus be more likely to provide their daughters with nontraditional, egalitarian gender role models. In this way, we see how children's development is shaped by the social, cultural, and economic contexts in which they are raised (Ogbu, 1981; Slaughter-Defoe, Nakagawa, Takanishi, & Johnson, 1990; Wilson, Kohn, Curry-El, & Hinton, 1995).

Although there is evidence for gender-egalitarian behavior among African American adults, the research generally indicates that differences between African American girls and boys tend to fall into traditional behavior patterns. For instance, African American preschoolers, like children from other ethnic groups, generally prefer same-gender peers (Fishbein & Imaia, 1993). When comparing different types of social behavior, there is some evidence that African American girls demonstrate a more affiliative emphasis whereas boys show a more power-assertive emphasis or task orientation. First, in a study of low-income African American preschoolers, McLoyd, Thomas, and Warren (1984) found that girls were more likely than boys to play with their peers; in contrast, boys were more likely than girls to engage in solitary play. Second, in a related study, McLoyd (1980) found that girls were somewhat more likely than boys to use fantasy-oriented talk during free play. Third, while observing African American preschoolers matched with same-gender peers during a painting activity, Brown (1996) found a tendency for more social behavior among girls and more task-oriented behavior among boys. Finally, in a study of low-income, inner-city preschool children playing with their mothers (94% African American), Wall and Holden (1994) found that boys were more assertive than girls. These studies suggest a pattern in which girls demonstrate a more affiliative emphasis and boys a more power-assertive or instrumental orientation in their social behavior.

To our knowledge, Goodwin (1990) is the only investigator to publish research comparing African Amer-

ican girls' and boys' same-gender peer interactions beyond the preschool years. She carried out a qualitative ethnography of 9- to 14-year-old African American children in a working-class neighborhood. Her analyses indicated that boys used more direct and confrontational strategies with one another, whereas girls used more indirect strategies to handle disputes. To some extent, Goodwin's findings parallel the type of pattern observed in the Miller et al. (1986) study of gender differences in conflict that was described earlier.

The previously cited studies suggest a general pattern in which girls are more likely to demonstrate affiliative behavior and boys are more likely to demonstrate power-assertive behavior. However, none of the cited studies made an explicit distinction between unmitigated self-assertion (controlling or aggressive acts) and self-assertion coordinated with affiliation (collaborative acts). When conceptualized in this way, it may be that the boys in the prior studies were more likely than the girls to use unmitigated assertion, whereas the girls were more apt to coordinate self- and other-oriented concerns. Thus, gender-typed patterns of social interaction among urban African American children would parallel the general patterns seen in other studies of children from primarily middle-class children of European descent (Leaper, 1991; Miller et al., 1986; Serbin, Sprafkin, Elman, & Doyle, 1982; Sheldon, 1990).

The communication patterns we chose to analyze were the same as those examined in Leaper's (1991) prior investigation. We followed the same procedure as in the earlier study. First, we matched children from the same grade level to form girl-girl, boy-boy, and girl-boy pairs. By looking at both same- and mixed-gender pairs, it was possible to test for both speaker gender and partner gender effects. Second, each child was provided with a bear puppet and asked to play with their partner as a way to generate talk between partners. Finally, the children's communication acts were coded using Leaper's (1991) Psychosocial Processes Coding Scheme to test for gender-related variations in communication. We analyzed both overall proportions of different speech acts and patterns of cooperative and domineering exchanges between speakers.

Although we used methods similar to those in the Leaper (1991) study, the present study is based on a different type of sample in two important ways. First, most of the children in Leaper's sample came from middle-class families living in southern California. By contrast, all of the children in the present study came from low-income families living in an urban neighborhood in the northeastern United States. Sec-

ond, most of the children in the earlier study were European American, whereas all of the children in the current study were African American. Thus, any differences between the findings observed in the present study and those reported in Leaper's study may be due to differences in either ethnic backgrounds (African American versus mostly European American), family incomes (low-income versus middle-income), a combination of both factors, or other uncontrolled variables (McLoyd & Randolph, 1986). Accordingly, we caution that the two studies should not be compared with the intent of inferring overall ethnic- or class-based differences. Instead, we consider the present investigation as having two functions. First, given the disproportionate representation of African Americans living in either poverty or working-class income status (Huston, 1991; Huston, McLoyd, & Coll, 1994; Slaughter, 1988), it behooves us to study normal social interactions among children from this ethnic group. Additionally, we can see to what extent gender-stereotyped patterns of social interaction generalize to a relatively unexamined population of children.

Based on the findings reported in the Leaper (1991) study, our hypotheses were as follows: First, boys were expected to be more likely than girls to demonstrate controlling acts and engage in domineering exchanges. Second, girls were expected to be more likely than boys to use collaborative acts and engage in cooperative exchanges. Third, gender differences were expected to be more likely when the same-gender pairs were compared than when mixed-gender pairs were tested. Finally, regardless of gender, children were expected to demonstrate *more* collaborative and cooperative communication and *less* controlling and domineering communication when matched with a girl than when matched with a boy.

METHOD

Participants

Forty-six girls and 60 boys (*mean age* = 7 years, 2 months, *SD* = 9.3 months) participated in the study.¹ All children were African American and came from low-income families. They were recruited from a public school in a poor, inner-city neighborhood in Pittsburgh, PA. According to school data, 95% of the children were eligible for the free lunch program, 69%

¹ Leaper's (1991) sample included children from two age levels, 5 and 7 years old. He found that gender effects were stronger at the older age level. Due to practical limitations in recruiting participants for our study (see Harris, 1996), we confined our sample to the 7-year-old age level.

of families received public assistance, and 18% of the children lived with both parents. One hundred percent of the school's students were African American.

Children from different classrooms were matched in either a same- or a mixed-gender pair. Although the children were familiar with one another, recruitment from different classrooms served as a partial control for degrees of familiarity between participants (see Leaper, 1991, for a similar procedure). There were 21 boy-boy pairs, 14 girl-girl pairs, and 18 girl-boy pairs. One mixed-gender pair was dropped from the analyses because they did not talk during the entire interaction. Thus, the present study was based on 21 boy-boy pairs, 14 girl-girl pairs, and 17 girl-boy pairs.

Due to the unequal cell sizes for the three groups, we used the SAS General Linear Models (GLM) statistical procedure for unbalanced designs (SAS Institute, 1990). This is a conservative procedure that uses adjusted least-squares means in computations.

Procedure

A total of four teachers (two African American women and two European American women) assisted in the study.² One teacher who was familiar to the children was responsible for running the session. This teacher escorted the pair of children to the school library. At the library, the children were seated across from one another at a table with a microphone located in the center. A video camera was positioned approximately 8 feet from the table.

The teacher made introductions and offered each child an identical brown bear puppet. After instructing the children to play with the puppets together and "have fun," the teacher left the room. After 5 min, the children were given a puzzle game to play. (The puzzle was generally associated with little talk among the children and was not used in the present analyses.) Afterward, the teacher returned to the room and briefly talked with the children about their play. The children were thanked for their participation and returned to their classrooms.

Coding

Verbatim transcripts were created from the videotapes of the children's conversations. Prior to cod-

² No male teachers were available to assist in the study. Also, no information is available to test for the possible confounding influence of teacher ethnicity. Given that the teachers were familiar to all of the children and that the teacher was not present during the filmed interactions, this type of confound was likely minimized.

ing, the transcripts were segmented into message units. Message units were individual speech acts, or utterances, bounded by their intonation contour. These included single sounds, sentence fragments, and complete sentences. Silences greater than 4 s were also noted.

Communication Acts

Communication acts were classified using the Psychosocial Processes Coding Scheme (PPCS; Leaper, 1991, 1996). The PPCS is based on a conceptualization of communication and social interaction in terms of two underlying dimensions, assertion and affiliation. (Note that the terms "assertion" and "affiliation" are synonymous with the terms "influence" and "involvement," respectively, used by Leaper, 1991.) The *assertion* dimension refers to the extent to which a message asserts the self and directly influences the other (direct) or downplays the self and does not directly influence the other (nondirect). The *affiliation* dimension refers to the extent to which a message moves the speaker closer to the other (engaging) or separates the speaker from the other (distancing). Each message unit was classified into one of 18 mutually exclusive and exhaustive codes. To better identify frequently occurring patterns, these codes were later reduced to the smaller set of categories described below.

Collaborate. Collaborative acts are simultaneously highly assertive and highly affiliative. This category includes: (1) making an initiation that invites the other to move closer ("Let's play store"); (2) mutually affirming self and other through acceptance, affection, or amusement ("I like playing with you"); and (3) contributing constructively to the interaction by affirming, cooperating with, or expanding upon the other's action ("I'll help you with that"). Additionally, nonverbal forms of collaboration, where one person either initiates a new course of action or builds on the other's actions, were coded separately.

Inform. Informing acts are moderately affiliative and moderately assertive. They include verbal acts that provide information ("This is a puppet"). Leaper (1991) included informing acts in the collaborate category, but, given the frequency with which informing acts occurred, we kept it as a separate category for the present analyses. Informing acts included only verbal forms of communication.

Oblige. Obliging acts are high in affiliation but low in assertion. They include: (1) seeking involvement from the other by requesting information, action, or confirmation, or allowing the other to start ("What do you want to do?"); (2) going along with the other by willingly accepting the other's proposal ("Sure, let's

do that"); (3) abrogating one's own position to maintain the interaction by deferring to the other, giving up responsibility, or avoiding potential conflict ("Never mind, we can do that"); and (4) dependently interacting with the other by fully accepting or seeking manipulation ("I can't do it without your help"). Obliging acts included only verbal forms of communication.

Control. This category refers to acts that are high in assertion (directive) and low in affiliation (distancing). Verbal and nonverbal control were coded separately. Verbal control included: (1) rejecting the other through denigration or displays of hostility ("You jerk!"); (2) taking over the interaction by ordering, manipulating, or challenging ("Don't do that"); (3) countering the other with defiance, refutation, or disruption ("That's not right"); and (4) resisting the other by defending one's position, showing skepticism, or questioning as a way of implying nonacceptance ("Why not?"). Nonverbal control included taking control of actions, physical coercion, physical aggression, or hostile nonverbal expressions.

Withdraw. Withdrawing acts are low in both assertion and affiliation. They include: (1) evading the other by not responding, changing the topic, or being vague ("What's that noise outside?"); (2) abstaining from participation by being indecisive or using delaying tactics ("Uh, um"); (3) abandoning one's position by unwillingly allowing the other to take over or by showing sudden disinterest ("I don't really care, whatever you want"); and (4) removal from the interaction by refusing to participate, ignoring the other, or expressing statements of disinterest ("I'm bored with this"; silences lasting longer than 4 s were considered unresponsive and were typically counted in this category). No distinction was made during coding between verbal and nonverbal forms of withdrawal.

Coders simultaneously read the transcripts and listened to the videotaped conversation to take into account nonverbal behaviors and voice tone. In this way, judgments pertaining to the speaker's intent were made. For example, a manifestly collaborative verbal expression expressed with a hostile tone was coded as a controlling act.

Reliability

Coding was carried out by two researchers. To test for intercoder reliability, each coder independently analyzed the same 18 transcripts (6 girl-girl transcripts, 6 boy-boy transcripts, and 6 girl-boy transcripts). Reliability was evaluated using κ coefficients. According to Fleiss (1981), κ values above .75 reflect "excellent" levels of agreement, whereas values below .4 indicate

“poor” agreement. An overall κ of .77 was obtained: verbal collaboration, $\kappa = .70$; nonverbal collaboration, $\kappa = .83$; informing, $\kappa = .72$; obliging, $\kappa = .91$; verbal control, $\kappa = .77$; nonverbal control, $\kappa = .68$; and withdrawing, $\kappa = .82$.

RESULTS

We analyzed the children’s use of communication strategies using (1) overall *proportions* and (2) sequential patterns of communication *exchanges* between speakers. Normalization of scores using arc sine transformations did not affect any of the results. Therefore, when reporting means and standard deviations, we used analyses based on nontransformed scores to better reflect the actual scores obtained from the sample. To compensate for variations in amount of talking, proportion scores rather than frequency scores were used to compare children’s use of the different speech act categories. Proportion scores were derived by dividing the frequency scores by each individual’s total number of communication acts. A similar procedure was used in Leaper’s (1991) study.

For the exchanges, the lag sequential procedure developed by Bakeman and Gottman (1997) was used. This procedure allows researchers to examine temporal contingencies by calculating the magnitude of association of a particular code with a previous code or response. Specifically, Yule’s *Q* indices of association were used. Yule’s *Q* is an odds-likelihood ratio of association between two categorical events that controls for base probability rates. Yule’s *Q* scores range from +1 to -1. A Yule’s *Q* of 0 indicates that the association between two events occurred at chance levels (or there were no instances of initiating or consequent events). A positive Yule’s *Q* score indicates that the association was more likely than would be expected by chance. A negative Yule’s *Q* score indicates that the association was less likely than would be expected by chance. When Yule’s *Q* scores are averaged for groups, the magnitude and the direction of the means may be interpreted as relative differences in degrees of contingency between the groups. We focused particularly on exchanges that were either cooperative (one or the other speaker uses a collaborative act) or domineering (one or the other speaker uses a controlling act).

In addition to testing for gender differences in significance level, we also computed effect sizes using Cohen’s *d*. Cohen’s *d* is an estimate of the difference in standard deviations between two groups. Effect sizes are typically considered negligible when below .20. Substantive effect sizes are considered small if *d* is above .20, medium if *d* is above .50, and large if *d* is above .80

(Rosenthal & Rosnow, 1984). The effect sizes are shown in Tables 2 and 4.

Statistical Design

The comparison of same- and mixed-gender pairs poses a methodological challenge because speaker gender and partner gender are not independent. From the various statistical techniques proposed to compensate for this situation, we chose a procedure advocated by Kraemer and Jacklin (1979) and further developed by Carli (1989a, 1989b). These researchers developed their statistical procedures to account for the interdependency between the two persons’ behaviors in a dyadic social interaction. As Kraemer and Jacklin pointed out,

the dependency of partners’ scores can be eliminated by devising scores that apply only to a group or an interacting pair . . . by summing individual scores across partners . . . or using pair-average scores. . . . Although some questions can be appropriately answered by such scores, there are many important questions that cannot be answered without individual measures for both members of a dyad. . . . First, the nature of the mutual dependency of subject and partner behaviors itself varies across groups . . . and this fact is of course lost in studies . . . with pair or dyad scores. Second, effects of the partner as stimulus may be lost. For example, children have been shown to behave differently in the presence of a boy as opposed to a girl. . . . Use of a score for each pair would only allow overall comparisons of boy-boy, girl-girl, and mixed-sex pairs and would mask these sex-of-partner effects. (pp. 217–218)

Thus, to test for speaker gender effects, partner gender effects, and the interaction between speaker and partner gender effects, Kraemer and Jacklin devised a statistical procedure that is relatively unfamiliar to most researchers (see Kenny, 1988, for a clear explanation of their method). Carli (1989a) further elaborated on the Kraemer-Jacklin procedure that allows the investigator to use data derived from ANOVA output (see Carli, 1989b, for a correction of statistical notation).

The procedure is as follows. First, gender effects are tested in separate ANOVAs for the same-gender and mixed-gender pairs. For the same-gender pairs, gender is a between-group factor. For the mixed-gender pairs, gender is a within-group factor. Based on Kraemer and Jacklin’s (1979) method, Carli (1989b) presented a formula for computing the linear combination of the means and error terms for the two data analyses. *t* tests are computed for three parameters,

speaker gender effects, partner gender effects, and interaction effects. For example, when testing speaker gender effects, the following contrast is used:

$$(M_{gs} + M_{gm} - M_{bs} - M_{bm}) / [(2MS_e + 2MS'_e) (1/n)]^{1/2}$$

wherein M_{gs} represents the mean for the girls in the same-gender pairs, M_{gm} is the mean for the girls in the mixed-gender pairs, M_{bs} is the mean for the boys in the same-gender pairs, and M_{bm} is the mean for the boys in the mixed-gender pairs. By using Carli's (1989a) modification of the Kraemer-Jacklin method, we were able to include the mean square error terms from ANOVAs using the conservative General Linear Models (GLM) statistical procedure for unbalanced designs (SAS Institute, 1990). MS_e and MS'_e refer to the mean square errors for the gender effects in the tests for the same-gender and mixed-gender pairs, respectively. Finally, n is the number of observations used in the analyses (number of same-gender pairs and number of partners within mixed-gender pairs). In this example, a positive t score would indicate a larger score for girls than for boys. Carli referred to this as the interaction effect. The same approach was used to test for the main effects of partner gender, $(M_{gs} - M_{gm}) + (M_{bm} - M_{bs})$ as numerator, and the interaction effect, $(M_{gs} - M_{gm}) - (M_{bm} + M_{bs})$ as numerator. The interaction effect tests for the difference between children's behavior in same- versus mixed-gender pairs.

To test for simple effects of speaker gender, the separate univariate gender effects for same-gender pairs and mixed-gender pairs were used (i.e., the ANOVA tests previously described). Also, to test the simple effects of partner gender, separate paired t tests were run for girls and for boys that compared them in same- versus mixed-gender pairs. To perform this analysis, an average score was created for the two partners in each of the same-gender pairs. Afterward, t tests compared the mean for the girl-girl pairs with the mean for the girls in the mixed-gender pairs. An analogous procedure was performed for the boys (see Carli, 1989a). No differences in partner gender effects for girls and boys were found unless otherwise noted in the text.

Proportion Scores

Speaker gender, partner gender, and interaction effects for the proportion scores are presented in Table 1. The mean proportion scores and standard deviations for each communication act are broken down by speaker and partner gender in Table 2. Additionally, the results from the between-groups and within-group ANOVAs appear in Table 2.

Table 1 Speaker Gender and Partner Gender Main Effects Associated with Proportion Scores

Variable	Speaker Gender <i>t</i> (67)	Partner Gender <i>t</i> (67)	Interaction <i>t</i> (67)
Collaborate (verbal)	1.25	.62	5.78***
Collaborate (nonverbal)	2.20*	.53	-.23
Collaborate (verbal and nonverbal combined)	.60	-.60	6.90***
Inform	.81	3.26**	-.34
Collaborate and inform combined ^a	2.05*	3.54***	5.80***
Oblige	1.29	-.62	2.45*
Control (verbal)	-2.97**	-1.98 ⁺	-2.97**
Control (nonverbal)	-1.53	-3.52***	-1.17
Control (verbal and nonverbal combined)	-3.38**	-4.10***	-3.02**
Withdraw	-1.89 ⁺	-.78	-6.58***

Note: Significance levels are based on two-tailed tests. A positive t score reflects a higher mean score for girls than for boys.

^aFollow-up simple effects tests indicated that the partner gender effect for the combination of collaborate and inform was significant for girls only.

* $p < .05$; ** $p < .01$; *** $p < .001$; ⁺ $p < .10$.

Speaker Gender Effects

As predicted, girls used proportionally more collaborative acts compared to boys. However, this effect was limited to the analysis of nonverbal collaborative acts. There was no significant speaker gender difference with either verbal-only collaboration or the combination of verbal and nonverbal collaboration.

In Leaper's (1991) original study, collaborative and informing acts were combined. Therefore, we carried out a set of similar tests using a similar measure. When verbal collaboration was combined with informing acts to form a single measure, a significant speaker gender effect was found. Consistent with our hypothesis, girls scored proportionally higher on this measure than did boys.

Other significant speaker gender effects indicated that, as expected, boys used proportionally more controlling and withdrawing acts than did girls. The gender effects on controlling acts were further moderated by the gender composition of the dyad, as revealed by significant interaction effects. As seen in Table 1, the t tests comparing same- and mixed-gender pairs indicate a significantly larger difference in mixed-gender pairs in the use of controlling acts when either verbal control, nonverbal control, or the combination of both forms of control were analyzed. The magnitude of gender difference was greater in same-gender than in mixed-gender pairs. Furthermore, as shown in Table 1, simple effects tests indicated a significant differ-

Table 2 Univariate Speaker Gender Effects and Interaction Effects Associated with Proportion Scores

Variable	Same-Gender Pairs				Mixed-Gender Pairs			
	Girls	Boys	<i>F</i> (1, 33)	<i>d</i>	Girls	Boys	<i>F</i> (1, 16)	<i>d</i>
Collaborate (verbal)	.28 (.21)	.25 (.19)	.23	.17	.17 (.21)	.15 (.18)	.43	.33
Collaborate (nonverbal)	.07 (.06)	.05 (.05)	1.15	.37	.07 (.06)	.06 (.06)	.31	.28
Collaborate (verbal and nonverbal combined)	.35 (.21)	.30 (.19)	.53	.25	.24 (.21)	.21 (.19)	1.37	.59
Inform	.34 (.14)	.28 (.11)	2.14	.51	.30 (.17)	.33 (.14)	.72	.42
Collaborate and inform combined	.62 (.12)	.53 (.18)	2.92 ⁺	.59	.46 (.21)	.49 (.18)	.39	.31
Oblige	.15 (.06)	.15 (.07)	.11	.12	.13 (.11)	.11 (.09)	.34	.29
Control (verbal)	.07 (.03)	.11 (.04)	2.52	.55	.11 (.11)	.12 (.10)	.14	.19
Control (nonverbal)	.00 (.01)	.05 (.11)	1.97	.49	.04 (.12)	.03 (.07)	1.45	.60
Control (verbal and nonverbal combined)	.08 (.07)	.16 (.13)	4.66 [*]	.75	.16 (.17)	.15 (.13)	.11	.17
Withdraw	.08 (.09)	.11 (.10)	1.31	.40	.18 (.23)	.19 (.22)	.12	.17

Note: Effect sizes are typically considered large if Cohen's *d* is above .80, medium if *d* is above .50, small if *d* is above .20, and negligible if *d* is below .20 (Rosenthal & Rosnow, 1984). The degrees of freedom for the *t* test are computed from the number of observations on which the means are based; in this study, that includes girl-girl pairs ($n = 14$), boy-boy pairs ($n = 21$), girls in girl-boy pairs ($n = 17$), and boys in girl-boy pairs ($n = 17$). For the interaction effect, a positive *t* score indicates a greater gender difference in same-gender than in mixed-gender pairs.

* $p \leq .05$; ⁺ $p < .10$.

ence between girl-girl and boy-boy pairs in the combined use of verbal and nonverbal controlling acts. The difference between the two groups was associated with a medium to large effect size ($d = .75$). When partners within the mixed-gender pairs were compared, there was no difference in the proportion of controlling acts.

A significant difference in the use of informing acts was found when same- and mixed-gender pairs were compared. The magnitude of gender difference was greater in same-gender than in mixed-gender pairs, but no significant simple main effects were found.

Partner Gender Effects

A few significant partner gender effects were obtained with proportion scores. First, the children used significantly more informing acts when matched with a girl partner than when matched with a boy partner. There was no difference between girls and boys in the partner gender effects. Additionally, when collaborative and informing acts were combined to form a single measure, a significant partner gender effect was observed. Simple effects tests indicated, however, that the partner effect differed for girls and boys. For girls, the combined collaborate/inform category was observed more with girl partners than with boy partners, $t(29) = 2.51, p < .05$. For boys, however, there was no significant difference with boy or girl partners, $t(36) = .65, ns$.

Finally, the children used significantly fewer controlling acts when matched with a girl partner than

when matched with a boy partner. The partner gender effect on controlling acts was statistically significant when either combined verbal and nonverbal acts or nonverbal-only acts were analyzed. The effect was marginally significant ($p < .06$) when verbal-only controlling acts were analyzed. Follow-up simple effects tests did not indicate a difference in the partner gender effect between girls and boys.

Interaction Effects

Significant interaction effects indicated that most of the affiliative acts were more likely to occur in same-gender pairs than in mixed-gender pairs. Specifically, when children were interacting with a same-gender peer, verbal collaboration, verbal and nonverbal collaboration combined, verbal collaboration and informing combined, and obliging were more likely to occur. In contrast, most of the nonaffiliative acts (verbal control, verbal and nonverbal control combined, and withdrawing) were more likely to occur in mixed-gender pairs.

Exchanges

For each exchange, we tested for speaker gender, partner gender, and interaction effects using the same designs described for the analysis of the proportion scores. Speaker gender refers to the second speaker (i.e., the respondent) in a given exchange. Partner gender refers to the first speaker (i.e., the initiator) in a given exchange. For example, with the collaborate-

Table 3 Speaker Gender and Partner Gender Main Effects Associated with Cooperative and Domineering Exchanges

Variable	Speaker Gender <i>t</i> (67)	Partner Gender <i>t</i> (67)	Interaction <i>t</i> (67)
Cooperative exchanges			
Collaborate-collaborate	1.11	-.94	7.16***
Collaborate-oblige	1.61	-6.26***	-1.05
Oblige-collaborate	-4.93***	2.85**	-2.11*
Domineering exchanges			
Control-control	-2.49*	-3.31**	-.16
Oblige-control	.66	-3.09**	3.86***
Control-oblige	-2.68**	-4.86***	-4.11***
Control-withdraw	1.33	-1.28	-1.85 ⁺
Withdraw-control	1.02	-1.99 ⁺	-2.27*

p* ≤ .05; *p* < .01; ****p* < .001; ⁺*p* < .10.

oblige exchange, a significant speaker gender effect would mean that girls and boys differed in the likelihood of their responding with an obliging act to a partner’s collaborative act. A significant partner gender effect would mean that children’s use of an obliging act following a partner’s collaborative act partly depended on whether the preceding collaborative act was initiated by a girl or a boy.

The *t* test results for the speaker gender, partner gender, and interaction effects are presented in Table 3. A summary of the means, standard deviations, and statistical results from the univariate ANOVAs is presented in Table 4. For ease of interpretation, the findings for cooperative and domineering exchanges are presented in separate sections.

Cooperative Exchanges

The following sequences were targeted as cooperative exchanges: collaborate-collaborate, collaborate-oblige, and oblige-collaborate. No distinction was made between verbal and nonverbal forms of collaboration in the sequence analyses. As explained in the Methods section, although Leaper (1991) combined informing acts with collaborative acts, we kept them separate. As with our analyses of proportion scores, however, we ran the exchange analyses again, combining collaborate and inform. The same general pattern of results was obtained in both analyses.

Speaker gender effects. A significant speaker gender main effect occurred with the oblige-collaborate exchange. As seen in Table 4, univariate tests indicated a significant gender effect for mixed-gender pairs but not for same-gender pairs. Although the oblige-collaborate exchange was generally unlikely for all children, it was more likely to occur when boys were responding to girls than vice versa.

Partner gender effects. There were significant partner gender main effects with the collaborate-oblige and the oblige-collaborate exchanges. Whereas the collaborate-oblige sequence was seen more with boy partners, the oblige-collaborate exchange was seen more with girl partners.

Interaction effects. The collaborate-collaborate sequence was observed more often in same-gender pairs than in mixed-gender pairs. Follow-up analyses also revealed that the difference between the two dyad types was significant for boys, *t*(36) = 2.71, *p* < .02, but not for girls, *t*(29) = 1.80, *p* < .10.

There was also a significant interaction effect with

Table 4 Univariate Speaker Gender Effects and Interaction Effects Associated with Exchanges

Variable	Same-Gender Pairs				Mixed-Gender Pairs			
	Girls	Boys	<i>F</i> (1, 33)	<i>d</i>	Girls	Boys	<i>F</i> (1, 16)	<i>d</i>
Cooperative exchanges								
Collaborate-collaborate	.36 (.64)	.34 (.60)	0	0	-.08 (.70)	-.23 (.70)	.58	.38
Collaborate-oblige	-.67 (.38)	-.41 (.50)	2.76	.58	-.26 (.53)	-.71 (.47)	7.29*	1.35
Oblige-collaborate	-.57 (.41)	-.45 (.45)	.62	.27	-.61 (.56)	-.17 (.61)	6.53*	1.28
Controlling exchanges								
Control-control	-.29 (.62)	.08 (.55)	3.27 ⁺	.63	-.07 (.70)	-.12 (.66)	.11	.17
Oblige-control	-.22 (.47)	.07 (.61)	.62	.27	-.20 (.64)	-.33 (.74)	.56	.37
Control-oblige	-.74 (.39)	-.29 (.54)	7.26**	.94	-.27 (.66)	-.51 (.56)	2.05	.72
Withdraw-control	-.57 (.42)	-.51 (.49)	.71	.29	-.31 (.68)	-.47 (.61)	.84	.46
Control-Withdraw	-.50 (.51)	-.51 (.43)	0	0	-.31 (.67)	-.47 (.59)	.71	.42

Note: Effect sizes are typically considered large if Cohen’s *d* is above .80, medium if *d* is above .50, small if *d* is above .20, and negligible if *d* is below .20 (Rosenthal & Rosnow, 1984). The degrees of freedom for the *t* test are computed from the number of observations on which the means are based; in this study, that includes girl-girl pairs (*n* = 14), boy-boy pairs (*n* = 21), girls in girl-boy pairs (*n* = 17), and boys in girl-boy pairs (*n* = 17). Positive *t* scores indicate a greater gender difference in same-gender than in mixed-gender pairs.

p* ≤ .05; *p* < .01; ⁺*p* < .10.

the oblige-collaborate exchange. This sequence was more apt to occur in mixed-gender than in same-gender pairs. As seen in Table 4, univariate tests also revealed a simple gender effect. In the mixed-gender pairs, boys were more likely than girls to respond collaboratively following a partner's obliging act. There was not a significant gender difference between the two same-gender groups.

Domineering Exchanges

The between-speaker sequences identified as domineering exchanges were control-control, control-oblige, control-withdraw, oblige-control, and withdraw-control. Both verbal and nonverbal forms of control were counted in these analyses.

Speaker gender effects. Consistent with our expectations, there were two domineering exchanges that were more likely for boys than for girls, control-control and oblige-control. However, a significant univariate effect, shown in Table 4, indicated that a significant gender difference in the oblige-control exchange occurred in same-gender pairs but not in mixed-gender pairs.

Partner gender effects. As hypothesized, certain domineering exchanges were more likely when a child was matched with a boy than with a girl. In particular, this pattern occurred with control-control, oblige-control, and control-oblige sequences. The effect was marginally significant, $p < .06$, with the withdraw-control sequence.

Interaction effects. The control-oblige exchange occurred more in same-gender than in mixed-gender pairs. In contrast, the oblige-control and the withdraw-control sequences occurred significantly more often in mixed-gender than in same-gender pairs. Additionally, when partner gender effects were examined separately for girls and boys, it was found that the difference between the two dyad types in the control-oblige sequence occurred only for girls, $t(29) = -2.34$, $p < .05$. In contrast, there was not a significant partner effect for boys, $t(36) = -1.22$, *ns*.

DISCUSSION

We wish to begin by echoing a point made at the outset of Leaper's (1991) discussion. Prior to reviewing the effects of gender on communication strategies observed in his sample of mostly middle-class European American children, he emphasized the magnitude of gender *similarities* in behavior. Group comparisons typically overshadow the amount of similarity and overlap between members of each group (Beall, 1993). Therefore, we want to underscore the fact that the African American girls and boys in the present

study were more alike than different. As in the Leaper (1991) investigation, the most common communication strategies for either girl or boy pairs or for either girls or boys within the mixed-gender pairs were collaboration and informing. Together, these two communication acts—which are considered both affiliative *and* assertive—accounted for over half of the communication acts for any group of children. Thus, in general, girls as well as boys were highly collaborative in their interactions regardless of the gender composition of the dyad.

In addition to there being much similarity between girls and boys, the gender differences observed in the Leaper (1991) study were generally replicated in the present investigation—despite the ethnic and socioeconomic differences between the two samples of children. First, in both studies, boy pairs were more likely than girl pairs to use more controlling communication acts and to engage in domineering exchanges while playing with puppets. Second, in both studies, gender differences in domineering communication were limited to comparisons of same-gender interactions and generally did not occur within mixed-gender interactions. Finally, girls were more likely than boys to use certain affiliative acts in both studies. Most of these gender effects were associated with medium to large effect sizes.

To illustrate the power-assertive patterns of communication most often associated with pairs of boys, the following is an example of a set of domineering exchanges between Andre and Kirk (pseudonyms):

1. Andre: Oh, don't call me turkey again, you fat piggy.
2. Kirk: I didn't say turkey; I said jerky.
3. Andre: Must can't hear too good.

All three of these message units (utterances 1–3) were coded as controlling acts. In the series of exchanges, the boys made verbal challenges and insults to one another. In these ways, the interaction had a competitive and confrontational structure. Goodwin (1990) observed similar communication patterns in her ethnography of African American boys' peer interactions in a working-class neighborhood.

Another type of domineering exchange that was more common among pairs of boys was the oblige-control sequence, as illustrated below between Michael and Tyler (pseudonyms):

4. Michael: Whatcha wanna do?
5. Tyler: Get out of here, man.
6. I'm gonna box you.

Here, Michael downplays his control by seeking out Tyler's interest (utterance 4). Rather than offering a

cooperative response, however, Tyler answers with two controlling communication acts (utterances 5–6). The “one-down/one-up” exchange implies a dominance relationship between the two parties (see Courtright, Millar, & Rogers-Millar, 1979). Similar patterns were seen in Leaper’s (1991) earlier study with mostly European American children. Our results are also consistent with other reports indicating a greater likelihood of power-assertive strategies for boys than for girls among both European American children (Fagot & Hagan, 1985; Serbin et al., 1982) and African American children (Weigel, 1985).

We were also able to replicate Leaper’s (1991) finding that girls were more likely than boys to use affiliative communication. There was no significant gender difference in the likelihood of using verbal collaborative acts, but girls were more likely than boys to use nonverbal collaborative acts. Furthermore, when collaborative and informing acts were combined to form a single measure, a significantly higher proportion occurred for girls than for boys.³ A significant partner gender effect also indicated that girls and boys alike used proportionally more informing acts (as well as more collaborative/informing acts combined) when matched with girls than when matched with boys.⁴ To the extent that giving information may reflect a general orientation toward social engagement and communication, this finding may reflect greater ease, for both girls and boys, in talking with a girl than in talking with a boy. For example, studies with adult samples indicate that some women and men are more comfortable making disclosures to women than to men (see Monsour, 1997). There is evidence from other studies suggesting that these types of partner gender effects may result from individuals’ stereotypes and self-presentation concerns as well as from actual differences between female and male partners’ behavioral responses (Deaux & Major, 1987).

There were two cooperative exchanges associated with gender differences but only within the mixed-gender pairs. Boys were less likely than girls to make an obliging response following the partner’s previous collaboration (the collaborate-oblige exchange). In contrast, boys were more likely than girls to make a

collaborative response following the partner’s prior obliging act (the oblige-collaborate exchange). Both types of exchanges are considered cooperative because they involve mutual affiliation. However, in the collaborate-oblige exchange, an assertive act (collaboration) is followed by a nonassertive act (oblige). In the oblige-collaborate exchange, the reverse pattern occurs. Perhaps, then, the greater likelihood of boys responding with collaboration following a girl’s obliging act reflects boys’ greater willingness to cooperate after the girl plays down her assertion. In contrast, the decreased likelihood of boys responding with obliging following a girl’s collaboration may signify boys’ unwillingness to play down their assertion after the girl plays up her assertion. In this way, within the context of cooperative exchanges, boys may be demonstrating a greater orientation toward power and dominance than are girls. To illustrate, consider the following series of exchanges between one girl-boy pair.

7. Kadeem: Say, “Wake up, Mother.”
8. Moesha: Wake up, Mother.
9. Kadeem: Okay, let’s go to the park today. (high-pitched voice)

In the above example, Kadeem makes a directive statement coded as a controlling act (utterance 7). Following Moesha’s obliging response (utterance 8), Kadeem elaborates on the action in a cooperative manner with a collaborative act (utterance 9). Within the interactive context, it appears that Kadeem’s collaboration is predicated on having previously controlled the course of action.

Our results indicated that boys and girls alike were less apt to use controlling communication when matched with girls than when matched with boys. Leaper (1991) observed a similar pattern in his study. In this way we see how the situation influences the manifestation and magnitude of certain gender differences in social behavior. Furthermore, the partner effects on controlling communication suggest that same-gender peer relationships may be an important context for the socialization of a dominance orientation in African American as well as European American boys during childhood. In contrast, cross-gender contacts may provide boys with an alternative context where jockeying for dominance may be less salient (Leaper, 1994). By implication, encouraging girls and boys to participate in mixed-gender dyadic interactions may be one useful strategy to reduce boys’ aggression (Leaper, 1994). At the same time, cross-gender dyadic interactions may provide girls with opportunities to act in directly confrontational ways that might receive disapproval from same-gender peers (Goodwin, 1990). The attenuation of gender typing in chil-

³ Some statisticians (e.g., Cohen, 1977, 1994) have argued that effect sizes are as valid as, if not more valid than, *p* values for interpreting findings. Accordingly, we can note that when girls and boys were compared as to the combined verbal and nonverbal forms of collaboration, there were small to medium effect sizes for both same-gender ($d = .25$) and mixed-gender ($d = .59$) pairs. Both differences reflected greater proportions for girls than for boys.

⁴ Leaper (1991) did not analyze nonverbal acts. Also, informing acts were included as instances of collaboration in Leaper’s (1991) study.

dren's cross-gender interactions may be limited to dyads. Same-gender coalitions may tend to emerge when children interact in mixed-gender groups (Mon-sour, 1997; Sroufe, Bennett, Englund, & Urban, 1993) unless they are highly structured activities requiring mutual cooperation between all members of the group (see Leaper, 1994, pp. 80–81).

The potential benefits of cooperative cross-gender dyadic interactions are at odds with recent proposals for gender-segregated schools or classrooms for African American children (see McCluskey, 1993; Scott, 1994; Wilkerson, 1991). Indeed, a recent review suggests that segregating by gender may not necessarily facilitate gender equity in children's academic and social development (American Association of University Women, 1998). Alternatively, by restructuring the co-educational classroom in ways that encourage collaborative learning among children in general and between girls and boys in particular, it may be possible to reduce gender inequities in academic achievement (Lockheed & Klein, 1985) as well as in interpersonal relationships (Leaper, 1994; Leaper & Anderson, 1997).

Although cross-gender interactions may be a context for reducing some forms of gender typing during childhood, a different scenario may emerge during adolescence when concerns with adult gender roles take on special significance (Archer, 1984; Hill & Lynch, 1983). During adolescence and adulthood, some gender differences in social behavior may actually be more likely to occur in cross-gender than in same-gender interactions (Carli, 1990; Leaper, 1994). However, the evidence for this developmental shift has been based primarily on middle-class, European American samples. There is little pertinent research about African American adolescents' or adults' communication strategies in both same-gender and cross-gender peer samples. Among the few relevant studies that matched children for social class, there is evidence that gender-role patterns tend to differ for African American and European American older children and adolescents.

First, among older children there may be a greater tendency toward cross-gender interaction among African Americans. For instance, Kovacs et al. (1996) found that in a sample of third and fourth graders, African American children were more likely than European American children to have cross-gender friends. Regardless of ethnic background, those with cross-gender friends stereotyped less about gender roles than did others. In another study, Sagar, Schofield, and Snyder (1983) observed sixth graders in an urban desegregated school and found that African American children were twice as likely as European American children to initiate cross-gender interactions. As the Kovacs et al. (1996) study (and our own) suggests,

experience with cross-gender peers may help reduce some forms of gender typing.

Second, there is tentative evidence of greater gender equality in mixed-gender interactions among African American than European American adolescents and adults. Filardo (1996) provided supporting evidence when she compared African American and European American adolescents from similar socioeconomic backgrounds. Participants were placed in mixed-gender groups (2 girls, 2 boys) and asked to perform a cooperative problem-solving task. Same-gender groups were not examined. Filardo analyzed the relative proportions of gender-typed speech acts such as task-oriented statements (similar to our inform category), positive responses (similar to our oblige category), "aggravated" acts (similar to our control category), and "mitigated" acts (similar to our collaboration category). When a composite measure of communication style was used, a significant overall gender difference occurred for the European American adolescents but not for the African American adolescents. Follow-up analyses revealed, however, that "the greater equality in the African American groups may be attributable mainly to the more active, assertive behavior by the African American female adolescents, rather than to the less active, less assertive behavior of the African American male adolescents" (p. 79). In other words, the African American girls were the ones who appeared to be acting in nongender-stereotyped ways. Other studies with adults have similarly reported that African American women are often less traditional than African American men, or women from other ethnic groups (Binion, 1990; Dugger, 1988; Henley, 1995; Stanback, 1985). Thus, while African American girls may tend to demonstrate gender-typed patterns during childhood, that may change during later childhood and adolescence. Because Filardo observed only mixed-gender groups, however, it remains unclear whether a greater magnitude of gender differences would be seen in same-gender groups (as indicated in our results).

Of course, the present study does not indicate the manner or extent to which gender-typed social interactions would be seen in middle-class African American children or low-income European American children. The target population for the present study must be viewed more narrowly as African American children living in a low-income urban neighborhood. Accordingly, we would like to see more researchers begin to explore how various aspects of the macrosystem, such as ethnicity, socioeconomic status, and family structure (Bronfenbrenner, 1977), are related to gender and behavior at different age levels. Some research suggests that income is better than ethnicity as

a predictor of social and academic outcome variables (e.g., Patterson, Kupersmidt, & Vaden, 1990). Other studies also highlight the impact of family structure (e.g., single parenting) on gender typing and development (Leaper, Leve, Strasser, & Schwartz, 1995; Stevenson & Black, 1988). However, the interrelationship between these variables remains largely unclear.

Additionally, aspects of the microsystem, or immediate setting, need to be considered. First, as our study revealed, examining both same- and mixed-gender interactions helps reveal the influence of the partner's gender. Second, when studying adolescents, a distinction needs to be made between sexually-motivated and platonic cross-gender interactions. Cross-gender interactions based on sexual courting tend to reflect traditional gender-role scripts for adolescents in general and perhaps for African American boys especially (Simmons, Black, & Zhou, 1991). The group size is a third aspect of the interactive context that needs to be explored. There is some indication that collaborative communication is more likely to occur between girls and boys when interacting in pairs than when interacting in groups (Sroufe et al., 1993). Fourth, the activity can moderate the likelihood of gender differences in social behavior (Leaper, Anderson, & Sanders, 1998). Our study, like most prior investigations, focused on children during play with toy-like objects (see McLoyd, 1985, for a critique of this type of activity). Goodwin's (1990) study of African American children in their neighborhoods is a good example of an alternative activity setting for observing interaction. Unlike the more controlled method that we used, observations in more naturalistic settings allow the researcher to identify the types of social interactions that characterize children's daily lives.

Our recommendations reflect our ecological-interactive theoretical model of gender and development. Gender-related variations in social behavior are viewed as adaptations to the larger sociocultural context and are related to the types of opportunities children perceive as available for their own gender. However, these lessons are practiced in ongoing social interactions that are also influenced by the nature of the people participating and the activities pursued. In this way, there is a dialectical, or bidirectional, relationship between microsystems and macrosystems (Riegel, 1976). Although social interactions occurring at the level of the microsystem are informed and guided by practices at the macrosystem level, it is also possible for changes at the microsystem level to affect the macrosystem over time (Bronfenbrenner, 1977; Riegel, 1976). In other words, individuals can and do change society. Thus, we must not be fatalistic regarding existing gender, ethnic, or economic inequities.

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