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The Functions of Aggression by Male Teenagers

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A selectionist theory states that violence by males toward male peers originally served specific functions and violence to female peers served others. Differences in self-reported victimization and perpetration in studies of 1,452 high school students were hypothesized. In Study 1, male-to-male aggression was reported to be more prevalent than male-to-female aggression. For male-to-male aggression, perpetrator reports agreed with or exceeded victim reports, and victims were more often strangers than close friends. In contrast, for male-to-female aggression, there were consistently fewer reports from perpetrators than from victims, and victims were less often strangers than girlfriends. Study 2 obtained similar findings for reported frequency, number of victims and perpetrators, and sexual aggression. Study 3 showed that girls' aggression contrasted with that by boys with respect to intra- versus intersex aggression and perpetrator–victim agreement.

Considerable scholarly and public interest has recently addressed how and why members of one sex commit aggressive and violent acts toward members of the other. Controversy surrounds the rates and interpretations of marital and dating violence in particular (e.g., Capaldi & Crosby, 1997; Dobash, Dobash, Wilson, & Daly, 1992; Dutton, 1994; Gelles & Loseke, 1993). Differing definitions of acts of violence, seriousness of violence, and perceptions of violence, as well as deliberate underreporting or fabrication, have all been suggested as possible sources of bias in self-reports (Hilton, Harris, & Rice, 1998).

Although some imperfections in self-reports are unrelated to aggression itself, such as general fading of memory, many inaccuracies could be due to biases actually related to the phenomenon of interest. For example, Widom and Morris (1997) found sex differences in recall of known sexual abuse. A recent meta-analysis of self-reported rates of relationship violence (Archer, 1999) indicated perpetration was relatively underreported, particularly in noncouples studies, which were larger and more numerous than couples studies. Research has shown that social desirability is more strongly associated with perpetrator reports than with victim reports (Sugarman & Hotaling, 1997). In any case, a full explanation of the self-reports of interpersonal violence requires statements about actual events and how reports of those events might be biased.

Male Aggression as an Adaptation

Marital and dating violence might best be understood in the context of violence in other relationships (Björkqvist, Österman, & Lagerspetz, 1994; Dobash et al., 1992). In this article we explore a selectionist account of peer aggression by male teenagers and their reports of that aggression. Cogent selectionist accounts of inter- and intrasex aggression have already been articulated (e.g., Campbell, 1999; Daly & Wilson, 1988; Smuts, 1995; M. Wilson & Daly, 1993). These describe how current psychological and behavioral traits were correlated with reproduction in ancestral environments. A central tenet is that the two sexes inevitably make different minimum parental investments, and the high-investing sex is a resource for which the other competes. In line with their higher parental investment, female reproductive strategies theoretically focus more on quality than quantity (compared with male strategies). Among humans, for example, women are said to be more selective choosing sexual relations and partners. Such choosiness, in theory, exerted selection pressure on men, leading to more intense intersex competition and riskier mating strategies. Men do make very large paternal investments compared with the male of other mammals (Daly & Wilson, 1988), theoretically because such behavior is selected for by women. When males invest in offspring, there is said to be selection pressure to ensure that those offspring were not fathered by another, because indiscriminate investors would have been less reproductively successful than those who invested nepotistically. Males from "investing species" would therefore be expected to exhibit behaviors associated with ensuring female sexual fidelity.

Traits associated with past reproductive success should theoretically be evident in present behavior, regardless of current adaptiveness. For example, women in many different cultures tend to report they would select high-status mates (Buss, 1994), and having a reputation for dominance by being willing and able to use aggression is, in theory, one way men can achieve status (although the aggression itself is not necessarily attractive). Male-to-male

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aggression is expected to be especially intense among male adolescents when competition for partners is most intense (M. Wilson & Daly, 1985). A study of northern European adolescents found that boys used direct aggression (e.g., physical, verbal) more than covert aggression (e.g., spreading rumors), and they did so more than girls used direct aggression (Björkqvist et al., 1994). We suggest that men and adolescent boys promote their status by presenting themselves as capable of instilling fear in other men and adolescent boys (including potential sexual rivals) and, if necessary, able to cause injury. Accordingly, reputations would be diminished by admitting to fear or injury. The theoretical mechanism could be deliberate exaggeration and minimization, or the encoding of some events more carefully than others. Regardless, the predicted outcome for male-to-male aggression is an overreporting of perpetration relative to victimization.

This selectionist account also explains male aggression to gain power and control over potential mates, as observed by contemporary feminist accounts (e.g., Smuts, 1995). As hypothesized above, because those aspects of human male behavior that helped ensure mates remained faithful contributed more to male than to female reproductive fitness, modern men and adolescent boys have inherited a greater tendency than women and adolescent girls to engage in sexually jealous and violent controlling behavior (Ghiglieri, 1999). As well, males are more likely to engage directly in coercive mating. By this account, however, females do not willingly accept male aggression because it could cause injury and reduce their opportunities for occasionally advantageous extrapair matings (see Buss, 1994; Ridley, 1997). Men and boys might be expected to have inherited a tendency to minimize or even be unaware of jealous, coercive, or aggressive behavior toward mates. Quite in contrast with intrasex aggression, men's and boys' public reputation for intersex aggression would, in theory, have been costly because of potential mates' unwillingness to be involved with such males, as well as possible physical retaliation by the victim or her male relatives (M. Wilson & Daly, 1993). Our account, therefore, predicts a tendency for male perpetrators of male-to-female aggression to underreport that aggression, in contrast to reports of male-to-male aggression.

Finally, our selectionist account predicts sex differences in the likely targets of male violence. Intersex violence would be directed more toward intimates (i.e., girlfriends) than strangers, whereas intrasex violence would be directed more toward victims other than close friends and associates. Male coalition formation and reciprocal altruism suggest that in established relationships, individuals enjoyed long-term advantages in avoiding the pursuit of short-term gains (through aggression or other means; Ghiglieri, 1999; Ridley, 1997; Smuts, 1995). In a study of violent fantasies, Kenrick and Sheets (1993) found that men most often fantasized about killing male strangers, whereas women most often fantasized about killing intimates, particularly boyfriends.

Study 1

As competition for mates is most intense during late adolescence (M. Wilson & Daly, 1985), this theory of male aggression should be useful in describing aggression by teenage boys. In Study 1, we examined self-reports of male teenagers' aggression toward male and female peers. We predicted (a) male-to-male aggression would be more prevalent; (b) boys asked about perpetration would report more aggression toward other boys than boys asked about victimization would report, but boys would underreport their aggression toward girls compared with girls' reports of victimization; and (c) male-to-male aggression would target strangers more than close friends, but male-to-female aggression would target girlfriends more than strangers.

Method

Participants. Participants were 698 11th-grade students at 13 schools in Simcoe County, Ontario. Their mean age was 16.8 years (SD = 1.39 years). The schools had enrollments of 400 to 1,700 students and were located in urban and rural areas with populations of 1,600 to 70,000. Three schools were in Canada's most rapidly expanding city with a nationally typical immigrant and aboriginal population (Statistics Canada, 1996), and overall the schools were a nearly exhaustive sample of the entire county's public secondary schools. They served a primarily English-speaking community. Two students asked to be excused from the project on religious grounds. Several studies were run simultaneously, with the questionnaires shuffled before distribution so that questionnaires for each study, including Study 1, were distributed randomly to a few students from each participating classroom, and each student completed one questionnaire only. Within each school, all participants completed their questionnaires at the same time in their classrooms. Questionnaires were randomly distributed and administered by the authors and trained assistants. Instructions for completing the questionnaire and information about voluntariness and anonymity were given orally and in writing.

Materials. The questionnaire asked about behaviors of teenage males toward peers in three levels of intimacy: stranger ("someone you've never spoken to before"), friend or acquaintance ("someone you know"), and best male friend (for male-to-male items) or girlfriend ("a girl you have been out with," for male-to-female items). Participants were instructed to include things that happened during sports or games if the acts were outside the rules, but they were instructed to exclude things that all people involved thought were fun. They were also told to exclude acts involving family members, which might serve functions different from those of extrafamilial peer aggression. There were 8 nonphysical aggression items (ridicule, threats, etc., based on categories reported by Follingstad, Rutledge, Berg, Hause, & Polek, 1990) and 10 physical aggression items (slap, kick, etc., using the Conflict Tactics Scale by Straus, 1979, with the item "bang, squeeze, or pull" the person's head added). Half the boys got a questionnaire that asked about acts done by the participant to other boys (e.g., "In the past 12 months, have you slapped any guy?") and to girls, and half got one that asked about acts done to the participant by boys and by girls. We did not use the words *victim, victimization, perpetrator,* or *perpetration* in the questionnaires or instructions. All girls' questionnaires in this study asked about victimization. Questionnaires about victimization also asked, "What is the worst injury a guy has done to you in the past 12 months?" (0 = *none,* 1 = *scratches or hair torn out,* 2 = *bruises,* 3 = *bleeding or burns,* 4 = *broken bones,* 5 = *knocked unconscious,* 6 = *had to stay in hospital, other*) and "What is the most afraid you have been of a guy in the past 12 months?" (0 = *never afraid,* 1 = *a bit on edge sometimes,* 2 = *on edge most of the time,* 3 = *afraid sometimes,* 4 = *afraid most of the time,* 5 = *terrified sometimes,* 6 = *terrified most of the time*). Questionnaires about perpetration asked comparable questions and included a *don't know* option. Apart from sex and year of birth, no identifying information was obtained.

Believing nonphysical aggression was too frequent to recall accurately for a 12-month period, we asked about the past month for the first four nonphysical items and 6 months for the second four. We found, however, that time frame did not significantly affect reported rates (Hilton et al., 1998), so rates presented here are not prorated. Although insensitivity to time frame shows that self-reported rates of aggression cannot be abso-

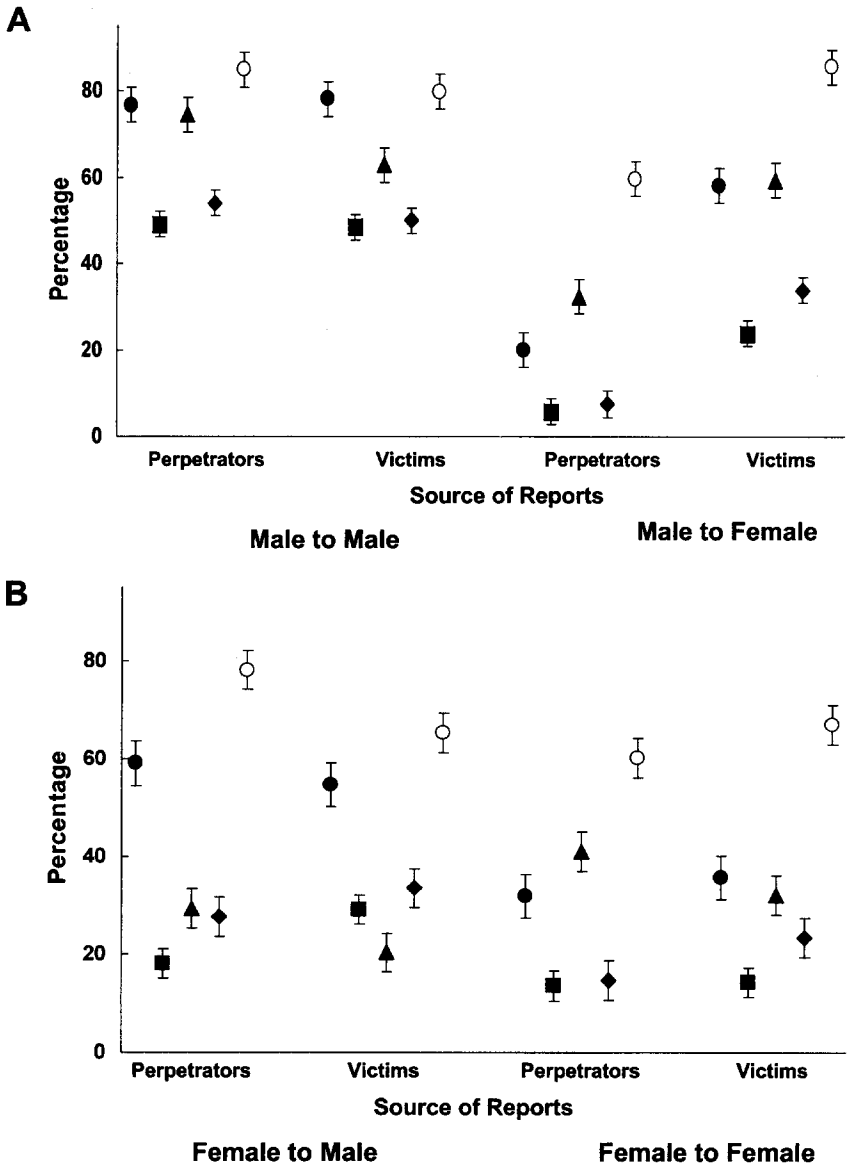

Figure 1. Reported prevalence (any nonzero response) of physical aggression, severe violence, injury, fear, and nonphysical aggression by male teenagers in Study 1 (Panel A) and by female teenagers in Study 3 (Panel B). Data are presented as a function of the perpetrator–victim combination and whether data came from perpetrator or victim reports. Vertical lines depict 95% confidence intervals. Closed circles represent all physical aggression items; squares represent Conflict Tactics Scale severe aggression (items kick or hit with fist and above); triangles represent fear ratings; diamonds represent injury ratings; and open circles represent the nonphysical aggression items.

lutely accurate, relative rates (e.g., boys vs. girls or types of aggression) showed evidence of validity.

Results and Discussion

Questionnaires about victimization were completed by 228 boys and 244 girls, questionnaires about perpetration by 226 boys. We refer to these responses as "victimization" and "perpetration," respectively, but we do not intend to imply that students providing these reports were exclusively victims or perpetrators. Severe physical violence included kicking or hitting with a fist and subsequent items on the CTS. Questions about injury and fear were omitted from some questionnaires in error, as reflected in subsamples below. In all analyses, which results were significant was unchanged, using random-effects analyses with school as unit of analysis. In Figure 1A, means falling outside the confidence intervals of other categories indicate significant differences. Wherever we state that differences are significant or not significant, we have conducted appropriate tests of null hypotheses.

Male-to-male physical aggression was more prevalent than male-to-female physical aggression for all 10 item comparisons of

perpetrator reports (binomial tests) and 8 item comparisons of victim reports (chi-square tests), $ps < .05$, with a nonsignificant trend in the same direction for victim reports of the victim's head being banged, squeezed, or pulled and of the victim being beaten up. Figure 1A also shows that boys were significantly more likely to report sustaining at least some injury than were girls, but not significantly more likely than girls to report experiencing any fear of boys. Perpetrators were significantly more likely to report causing injury and fear to boys than to girls. Boys were no more likely than girls to report being the victim of male nonphysical aggression, but perpetrator reports were more likely to include at least one incident of male-to-male nonphysical aggression than male-to-female nonphysical aggression. Unexpectedly, some nonphysical aggression items were significantly less prevalent in male-to-male aggression than in male-to-female aggression: tried to limit what the person did, acted very jealous, threatened to "dump" (stop being friends) if person didn't do what perpetrator wanted, and refused to let the person dump perpetrator. These items appear to describe attempts to control the other person's behavior or to present self-confidence in a relationship.

Figure 1A also shows that contrary to our prediction, victim and perpetrator reports of male-to-male aggression did not differ significantly. Although "beat up" was reported significantly less often by victims than by perpetrators (9% vs. 27%, respectively), $\chi^2(1, N = 451) = 25.97, p < .001$, "tried to limit" what the victim did was reported significantly more often by victims than by perpetrators (8.77% vs. 3.57%, respectively), $\chi^2(1, N = 452) = 5.29, p < .05$. In contrast, girls were significantly more likely to report being victims of male physical and nonphysical aggression than boys were to report perpetrating such aggression against girls for every item.

Victim and perpetrator reports of male-to-male aggression agreed on whether any injury occurred, but, consistent with our prediction, victim reports were less likely than perpetrator reports to include some fear and indicated less fear (0.89 vs. 1.78), $t(345) = 5.50, p < .001$, and injury (1.04 vs. 1.42), $t(379) = 2.54, p < .05$. For male-to-female aggression, victim reports were more likely to include fear and injury and indicated more fear (1.15 vs. 0.20), $t(365) = 7.58, p < .001$, and injury (0.67 vs. 0.09), $t(405) = 7.09, p < .001$ (see Figure 1A).

For all reports, the most common intimacy level was friends (41.7% to 59.6% of reports). Strangers were significantly more likely than intimates (i.e., "your best male friend") to be involved in male-to-male physical aggression (28.8% vs. 22.0%, respectively; odds ratio 1.69), $\chi^2 = 5.58, p < .05$, whereas intimates were more likely than strangers to be involved in male-to-female aggression (29.8% vs. 14.5%, respectively; odds ratio 3.22), $\chi^2(1, N = 468) = 31.12, p < .001$. Nonphysical aggression yielded similar patterns.

Study 2

Study 1 was limited to prevalence data. Perhaps reporting differences arose from a few boys aggressing against many girls, or girls might date older boys so that we undersampled both members of couples relative to the proportion of students in couple relationships. In Study 2, students reported the frequency of aggressive acts and how many times and how many perpetrators or victims were involved. We also added questions about sexual aggression.

Method

Participants were 426 different students (49.9% male) in 11th-grade classes at 9 of the 13 schools described above. Their mean age was 17.1 years (SD = 1.07 years). Analyses of time frame effects in this sample appear in Hilton et al. (1998). The procedure was identical to that used in Study 1, and the questionnaire included the same nonphysical and physical items and ratings of fear and injury described there. Eight items concerning sexual coercion in the past 12 months, adapted from the Sexual Experiences Survey (Koss & Oros, 1982), were added: unwanted sexual touching; used force to kiss or touch sexually; lied, argued a lot, threatened to dump the girl, got the girl drunk or high on drugs, or used force to attempt to get the girl to have sex; and did have sex using force. Girls' questionnaires asked how many times each act was done (0, 1, 2, 3–6 recoded as 4.5, *more* recoded as 7) and how many boys perpetrated each act (0, 1, 2, 3, *more* recoded as 4) in four intimacy levels: stranger, friend, date ("a guy you have been out with"), and steady ("a steady boyfriend"). Boys answered comparable items about perpetration against girls.

Results and Discussion

More girls (victims) than boys (perpetrators) reported each type of aggression: nonphysical, 82.2% versus 62.7%; physical, 54.7% versus 20.3%; and sexual, 49.5% versus 13.7%, respectively; all χ^2s$(1, N = 426) > 20.3, ps < .001$. Girls were significantly more likely than boys to report each of the 26 items, all χ^2s$(1, N = 426) > 4.52, ps < .05$. There was also an interaction of sex and type of aggression (nonphysical, physical, sexual), $F(2, 423) = 6.20, p < .01$, such that the victim–perpetrator difference was greatest for sexual aggression (odds ratio = 6.19), $\chi^2(1, N = 426) = 63.24, p < .001$, and least for nonphysical aggression (odds ratio = 2.75), $\chi^2(1, N = 426) = 20.64, p < .001$. Victim–perpetrator difference was greater for severe physical violence than for minor violence (9.16 vs. 3.28), all χ^2s$(1, N = 426) > 24, ps < .001$. Thus, the difference was related to the severity of violence, report discrepancies being smaller for less serious (but more prevalent) acts.

Girls also reported significantly higher frequencies of aggression than did boys: nonphysical, 1.16 versus 0.41; physical, .29 versus 0.05; and sexual, 0.44 versus 0.06, respectively; all $ts(424) > 6.10, ps < .001$, and for each item individually, all $ts(424) > 2.59, ps < .01$. Girls were significantly more likely than boys to report fear (49.8% vs. 14.4%), $\chi^2(1, N = 393) = 54.56, p < .001$, and injury (32.0% vs. 8.4%), $\chi^2(1, N = 405) = 34.93, p < .001$. Girls also reported more fear (1.19 vs. 0.22), $t(403) = 7.71, p < .001$, and injury (0.69 vs. 0.14), $t(403) = 6.40, p < .01$, corresponding to moderate to large effect sizes, Cohen's $d = .71$ and .82, respectively.

Girls reported more perpetrators than boys reported victims for each type of aggression: nonphysical, 3.53 versus 1.88; physical, 1.95 versus 0.40; and sexual, 2.63 versus 0.49, respectively; all $ts(424) > 5.63, ps < .001$. Regardless of the distribution of perpetrator behavior among boys, if these samples are from the same population, the average number of perpetrators should equal the average number of victims. This sex difference, therefore, suggests that either boys underreport aggression against girls or that girls are victimized disproportionately by boys not attending 11th-grade classes.

To test whether the results could be explained by girls being victimized by older boys, we compared girls aged 15 or 16 years ($n = 49$) with boys aged 18 years or older ($n = 62$). Girls reported

a higher prevalence of aggression than did boys: nonphysical, 93.9% versus 66.1%; physical, 61.2% versus 21.0%; and sexual, 53.1% versus 17.7%, respectively; all χ^2s(1, N = 111) > 12, $ps < .001$. Similarly, girls' ratings, frequency reports, and reported number of persons involved were significantly higher than were boys'. Girls' reports of the prevalence of fear and injury exceeded boys', but not significantly so.

As in Study 1, most nonphysical and physical aggression was reported among friends and acquaintances. Intimates were more common targets than strangers for physical aggression (20.2% vs. 4.7%, odds ratio 5.13), $\chi^2(1, N = 426) = 46.93, p < .001$, and sexual aggression (25.4% vs. 6.8%, odds ratio 4.64), $\chi^2(1, N = 426) = 54.28, p < .001$. Girls reported proportionately more physical and sexual aggression in intimate relationships, especially in steady partnerships, than did boys.

Study 3

The difference between boys' and girls' reports of male-to-female aggression contrasted with the agreement between victims and perpetrators about male-to-male aggression. The difference increased with increasing seriousness (and decreasing prevalence) of aggressive acts. The possibility of a few boys having many female victims within the sample cannot explain the difference, nor can age differences between male perpetrators and their female victims (at least within the limited age ranges we were able to test). Unfortunately, we have no absolute rate by which to evaluate under- or overreporting of intersex aggression. We can, however, compare male aggression with reports of female aggression. For example, do boys and girls agree on rates of female-to-male aggression? Boys reported more intrasex than intersex aggression; is the same pattern found among girls?

As with aggression by males, a selectionist account would expect that aggression by females of any species is partially the legacy of the function that violence served in enhancing female inclusive fitness (Buss & Shackelford, 1997; Campbell, 1999). Females of any species, for example, would use aggression against males to retaliate for male-initiated aggression, in self-defense, to protect their young, or to ensure parental investment. Among humans, women or adolescent girls might attack others who insult their sexual reputations or are rivals for sexual mates, but without the payoff for aggression-based dominance that males experience, we would expect less intrasex aggression among females. Although there might be some cost to a woman or girl who has a public reputation for intersex aggression, female-to-male aggression would present little risk to males compared with male-to-male aggression (other things such as weapons and number being equal), and males of any species might even be attracted to aggressive potential mates for their ability to protect their offspring; therefore, we would not expect female teenagers to underreport intersex aggression. Because girls would have some interest in coercing male partners into maintaining or increasing commitment, intimates should be more common among male victims than strangers (as in fantasized violence; Kenrick & Sheets, 1993). In Study 3, we obtained teenagers' reports of female-to-male and female-to-female aggression. Unlike with male aggression, we predicted more intersex than intrasex aggression, perpetrator and victim agreement on the rates of violence, and less aggression toward strangers than intimates.

Method

Participants in this study were 702 11th-grade students at the same 13 schools described in Study 1. Their mean age was 16.7 years (SD = 1.35 years). Victim reports were provided by the same 228 boys and 244 girls who reported their victimization by boys on the questionnaire described in Study 1. The remaining 230 participants were girls who reported their perpetration of aggression against girls and boys. The materials and procedure were the same as for Study 1. Data on each item are available on request.

Results and Discussion

In contrast to the aggression by boys, intersex aggression was reported to be more prevalent than intrasex aggression. Figure 1B shows that boys were significantly more likely than girls to report being the victim of at least one incident of female physical aggression, including severe aggression. Male victims reported significantly more injury and fear. All the same patterns occurred in perpetrators' reports. Perpetrator reports included more nonphysical aggression toward boys than girls. Boys, contrary to prediction, were not significantly more likely than girls to report being the victim of nonphysical aggression.

Figure 1B also shows that victim and perpetrator reports of female-to-female physical aggression, including severe aggression, did not differ significantly: There was agreement for all 18 female-to-female aggression items. In contrast to reports of male intersex aggression, male victim and female perpetrator reports of intersex physical aggression did not differ. Victim reports, however, were significantly more likely than perpetrator reports to include at least one act of severe aggression (see Figure 1B) and to indicate that the girl banged, squeezed, or pulled the boy's head (12.3% vs. 6.5%, respectively; binomial test $p < .001$).

Opposite to male intrasex aggression, victims of female-to-female aggression were more likely than perpetrators to report fear and injury (see Figure 1B). There was no significant difference, however, in injury severity reported by victims and perpetrators (0.43 vs. 0.32, respectively), $t(403) = 1.27$, *ns*, nor in extent of fear (0.52 vs. 0.50, respectively), $t(363) = 0.18$, *ns*. Victim and perpetrator reports of fear and injury caused by female-to-male aggression were not significantly different in prevalence (Figure 1B) or extent: injury (0.57 vs. 0.46), $t(384) = 1.09$, *ns*; fear (0.31 vs. 0.33), $t(369) = 0.23$, *ns*. Female-to-female nonphysical aggression was more prevalent among victim reports than perpetrator reports, but the opposite was true for female-to-male nonphysical aggression overall.

For both female-to-male and female-to-female aggression, victims and perpetrators agreed that the most common intimacy level was friends or acquaintances. Intimates were more common than strangers in female-to-male physical aggression (29.6% vs. 7.4%, respectively, in perpetrator and victim reports combined; odds ratio 5.26), $\chi^2(1, N = 460) = 76.64, p < .001$. Intimates were not significantly more likely than strangers to be involved in female-to-female physical aggression (9.0% vs. 8.0%, odds ratio 1.14), $\chi^2(1, N = 476) = .87$, *ns*. Results for nonphysical aggression were similar to those for physical aggression. Only 5.6% of girls reported perpetrating any act of physical aggression against a female stranger, and these girls reported high rates on average of physical aggression, including severe aggression, against both male and female victims.

General Discussion

Taken together, the present results lend support to one selectionist account of teenagers' reports of male aggression: By all reports, boys are more aggressive toward other boys than toward girls. Overall, boys report they cause more fear and injury (but not aggression) to other boys than they experience. Conversely, girls reported experiencing more fear and injury than boys reported causing them. These interactions bespeak a discrepancy (not confined to dating relationships) in reports of male-to-female violence not explained by differences in the prevalence of violent individuals or biases in age-peer reporting. Unlike reports of male aggression, reports of female aggression indicated more inter- than intrasex aggression. The victim–perpetrator discrepancy evident in reports of male aggression did not appear to be attributable to either general reticence of perpetrators or general overreporting by girls or victims. The discrepancy is unique to male-to-female aggression, consistent with our selectionist account.

This research provided a comprehensive comparison of aggression in inter- and intrasex relationships at different levels of intimacy. We used self-report measures typically used to study aggression in relationships. Our findings regarding victim reports of intersex aggression rates are consistent with previous findings that women are at least as likely as men to use violence and nonphysical aggression (e.g., Capaldi & Crosby, 1997). Also consistent with previous research, however, is the greater fear of the opposite sex found among female victims than male victims (e.g., Morse, 1995). Research on intersex aggression indicates that perpetrator reports may be less reliable than victim reports, especially among male perpetrators (e.g., Archer, 1999; Hilton et al., 1998). Our present research is the first to compare self-reported male-to-female aggression in not only dating relationships but all nonfamilial peer-aged relationships, studying similar aggression among and between male and female adolescents. In the context of existing literature, it seems reasonable to conclude that teenaged male perpetrators do underreport their aggression toward girls, and our selectionist account provides an explanation for why this is the case.

Moffitt et al. (1997) suggested reliable reports can be obtained when "motivation to distort or conceal" (p. 54) is absent. On the basis of our theoretical approach, we propose that, at least for male teenagers, an evolved mechanism of impression management produces distortion or concealment, even without the clinical or forensic conditions implicated by Moffitt et al. If reporting conditions were not anonymous, boys would theoretically be less likely to report they were violent to girls, especially with a female experimenter. Conversely, the less anonymous the reporting conditions, the more likely the boys would be to report that they were violent to other boys and the less likely they would be to report that they were victims, especially with a male age-peer experimenter. Another aspect of socially desirable reporting is self-deception. A selectionist account might posit that boys attend to their abilities as aggressors against boys because of the potential harm to themselves, but that they do not need to perceive or encode violent interactions with girls to the same extent. Our experimental work in progress suggests that recall of aggression differs according to participant sex and attitudes.

We acknowledge some limitations in the present studies. Although differences between intimate and stranger aggression were as predicted, friends and acquaintances were the most commonly reported targets of aggression. Unfortunately, our pilot studies showed that students did not reliably know the meaning of *acquaintances,* and our interest in comparing extreme intimacy levels led to combining a large pool of relationships that possibly included "second-best" intimate friends, brief acquaintances, and even enemies. Thus, our selectionist hypothesis that aggression has had a particular function in establishing social hierarchy among males, whereas male-to-female aggression has had a particular function in ensuring sexual fidelity already in established relationships, requires further elaboration and study. Also, we did not study intact pairs; consequently, we cannot be sure that perpetrators and victims reported on the same population of acts, which might limit interpretation of perpetrator–victim reporting discrepancies. For example, in the age group studied, girls might be victimized by male "friends" and boyfriends much older than themselves, whereas boys might have much less contact with the opposite sex. Our analyses in Study 2 suggested this explanation was unlikely, as does the finding that 81.3% of boys and 83.2% of girls in other studies with this population reported having dating experience (Hilton, Harris, & Rice, 2000). If this explanation is correct, a study of self-reports over different years of high school and college would find that discrepancies decrease as age increases. The discrepancies we found, meanwhile, are consistent with the apparent larger underreporting of perpetration by male than by female participants in noncouples research (Archer, 1999). Research with nonintimate dyads would shed further light on reporting discrepancies.

Our nonstandardized measure of nonphysical aggression yielded some findings at variance with our predictions and with findings for physical aggression. Future research might study *indirect* or *relational* aggression (e.g., spreading rumors, isolating a peer, manipulating others into direct aggression), which is found in inter- and intrasex relationships and seems more prevalent among females than males, particularly in youth, at least in North America and Europe (Österman, Björkqvist, & Lagerspetz, 1998; Werner & Crick, 1999). The present study was conducted in a single (somewhat multicultural) society. Future studies could examine cultural and individual variation in reports of violence. The relative contribution of human cultures (as the cumulative products of individual psychology of members of both sexes) to contemporary behavior is an important element of theoretical debate, even among different selectionist accounts (E. O. Wilson, 1999).

Alternative selectionist and nonselectionist explanations are possible for some of our findings. For example, girls might overreport male-to-female aggression because they have been sensitized to it by public awareness campaigns so that they take offense to acts not intended to harm. By the same token, boys may not report some acts because they think everyone thought it was in fun (one of the exclusion criteria in the instructions given to students). As another example, boys might aggress against male strangers more than they do against male friends because male team sports bring them into frequent contact with unfamiliar males. Also, patriarchy and a culture of male dominance explains why men and boys are so violent to each other and to women and girls. Such interpretations, however, beg further explanation. Why would reports of sexual aggression be especially sensitive to perpetrator–victim discrepancy? Why have traditional male sports (compared with female sports) emphasized competition and physical aggres-

sion? Why are so many human cultures patriarchal? Why are men and boys proud of male-directed violence yet apparently ashamed of female-directed aggression? Generally, how much of human behavior is due to many specific evolved mechanisms as opposed to fewer (evolved) general mechanisms perhaps showing more cross-cultural variability? More distal accounts are required. The selectionist model presented here is one attempt to explain both the occurrence and the reporting of male and female intersex and intrasex aggression. We have found support for some hypotheses derived from this account and have suggested further empirical tests of our theoretical assertions and competing explanations. In sum, our selectionist account asserts that proximal behavioral phenomena are often the psychological remnants of human evolutionary history, much as fossils are morphological relics of the evolutionary history of many species (including humans).

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