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## Peer Rejection as a Social Regulation Mechanism of Group Norms: The Case of Aggression Across Sex

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This study tests the hypothesis that peer rejection acts as a social regulation mechanism by reinforcing conformity to group norms, particularly those related to direct and indirect aggression. The sample consisted of 682 boys and girls ( $M_{age} = 10.21$  years) which was divided into three sub-groups: girls in all-girls schools, girls in mixed-sex schools, and boys in mixed-sex schools. Within-sex difference analyses indicated that indirect aggression was more normative than direct aggression for girls; conversely, direct aggression was more normative than indirect aggression for boys. In line with the view that non-normative behaviors are penalized by peers via rejection, direct aggression was more strongly associated with rejection in female groups whereas indirect aggression was more strongly related to rejection in male groups. Specific comparisons of the girls from the all-girl and the mixed-sex schools did not reveal any differences in the normativeness of either type of aggression between these contexts. Consistent with this result, no differences between types of school were found in the extent to which both forms of aggression were associated with rejection in females. This study shows that peer rejection occurs to a higher extent when group members engage in behaviors that are non-normative for their sex group, and that this process does not seem to vary as a function of the availability of a social comparison, as in mixed-sex schools.

*Keywords:* Group norms, Rejection, Direct aggression, Indirect aggression, Sex differences

A broad array of studies in the field of social psychology suggest that individuals ascribe significance to group norms and use them to guide their own behavior (Miller & Prentice, 1994). In the case of aggression, it has been found that in peer groups in which children perceive that bullying is approved there is an increased prevalence of bullying behaviors (e.g., Salmivalli & Voeten, 2004). However, in spite of the consistency in the research findings that demonstrate the effect of social norms on individual behavior, the mechanisms of influence of such norms remain unclear. In this study, we seek to test the hypothesis that peer rejection may act as a social regulation mechanism that reinforces conformity to group norms, particularly those related to indirect and direct aggression. Given the particular rise in children's concern about peer acceptance (Rubin,

Bukowski, & Parker, 2006) and on the increase in bullying and victimization during middle childhood and early adolescence (Espelage, Bosworth, & Simon, 2000; Olweus, 1993), these processes were examined in children in 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> grades. The groups we studied were same-sex classroom-based peer groups, including classrooms in mixed-sex schools and in all-girl schools. Based on theory and previous research, three questions were assessed. First, we tested what type of aggression was more normative for each of the three types of peer groups (i.e., boys in mixed-sex schools, girls in mixed-sex schools, and girls in all-girl schools). Second, we examined whether direct and indirect types of aggression would be differentially penalized (i.e., rejected) by the same-sex peer group between girls and boys. Finally, we assessed whether the normativeness of aggression and the social

regulation mechanism of aggression-related norms would differ between girls in both types of school. The answers to these questions are critical for our understanding of whether norm-based rejection is one of the mechanisms that social groups use to regulate members' behavior.

### **Group Normative Processes**

Norms have been defined as the acceptable and expected behavior of the members of a social group (Shaw, 1981). Katz and Kahn (1978) propose that social norms serve at least three functions for a group: (1) to integrate people into the system; (2) to establish a frame of reference for social interaction, and (3) to provide a justification for social functioning within the system. For norms to accomplish these goals, the group needs to develop some sort of mechanism to regulate members' behavior. In this line, Crosbie (1975) proposed that rewards, punishments, and persuasion are mechanisms that bring deviant members back within the limits approved by the group. A basic premise of peer relationships research is that peer acceptance and rejection could act as reward and punishment mechanisms, respectively. If so, it should be expected that rejection of a behavior would vary as a function of the normativeness of that behavior within a particular group. Some evidence regarding aggression points to this possibility already. In general, most research findings show that aggressive children tend to be rejected by their peers in their social groups (Crick, Casas, & Mosher, 1997; Haselager, Cillisen, & Van Lieshout, 2002; Ladd & Burgess, 1999). Nevertheless, other studies fail to find such associations (Phillipsen, Bridges, McLemore, & Saponaro, 1999; Salmivalli, Kaukiainen, & Lagerspetz, 2000). As an example, it has been shown that, after the transition to middle-school, aggressive behaviors become more socially accepted among children (Bukowski, Sippola, & Newcomb, 2000). One explanation for such discrepancy in the results could be that rejection of aggressive children varies as a function of aggression-related peer norms, which might change across groups and over time.

Previous research has looked at these variations in relation to the process of peer acceptance. Specifically, results from these studies have shown that individuals who exhibit non-normative behaviors in a group tend to have lower peer status. For example, Wright, Giammarino, and Parad (1986) tested the misfit concept, which states that individuals who do not fit the groups' characteristics are less accepted by the other members of the group. They found that aggressive behavior was only negatively associated with peer acceptance in low-aggression groups. These results were confirmed by Boivin and colleagues, particularly for the case of reactive aggression (Boivin, Dodge, & Coie, 1995). Similarly, studies conducted with classroom-based groups have found that in classrooms in which aggressive behaviors prevailed, the negative association between aggression and peer acceptance was weak (Chang, 2004; Stormshak et al., 1999). This evidence shows that the peer group tends to use acceptance as a mechanism to encourage its members to conform to normative behaviors.

In spite of this rather strong support for the role of peer status as a mechanism for peer norm regulation, at least three limitations should be noted in the outlined studies. First, they emphasized their analysis on peer acceptance, which may not be especially influenced by non-normativeness. We propose that rejection is a more effective mechanism to control such behaviors by means of social disapproval. Second, some of these studies have focused mainly on male populations (e.g., Wright et al., 1986; Boivin et al., 1995). Third, those studies that have tested these social processes in both boys and girls, have used measures consisting mainly of direct types of aggression, which are typically more representative behaviors of males and of younger children. In this regard, it has been found that more indirect forms of aggression tend to replace direct aggression in older age groups (Rubin et al., 2006). This concern led us to examine the role of rejection as a mechanism to regulate peer norms, considering not only sex differences, but also including forms of aggression, namely direct and indirect, that represent behaviors within both gender contexts.

**Sex differences in aggression-related norms.** The need to include sex as a variable in our hypotheses derives from the evidence that males and females differ in their normativeness of aggression. In this regard, Maccoby (1998) argued that the two sexes grow up within two distinct cultures that are characterized by different interactions. This way, males and females would be socialized differently, leading to specific gender-typed behaviors and expectations. Thus, if behavioral expectations are unique for each gender, males and females should tend to guide their behavior according to their respective gender norms.

Research findings suggest that gender norm differences might be particularly salient when it comes to aggression. On the one hand, there is robust evidence indicating that males are, overall, more aggressive than females (Eagly, 1987; Maccoby & Jacklin, 1980). In terms of gender norms, this also suggests that aggression might be more tolerated for males than for females. On the other hand, and more interestingly, there seems to be differential patterns of aggressive behaviors within each gender, which become visible when examining different types of aggression. According to Little, Jones, Henrich, and Hawley (2003), aggression can be classified according to the form of delivery of the behavior, in which case it can be either direct or indirect. Direct aggression refers to any physical or verbal act that directly hurts another person, while indirect aggression corresponds to harm caused to the other's relationships or to their social status, or harm that is inflicted in such a way that the victim is not able to identify who hurt him/her. In this respect, findings from several studies have suggested that direct (e.g., physical, verbal) forms of aggression are more prevalent for boys than for girls, whereas indirect (e.g., relational) aggression appears to be more prevalent for girls compared to boys (Björkqvist, Lagerspetz, & Kaukiainen, 1992; Crick, 1997; Crick & Grotpeter, 1995). More recent studies, however, have challenged this pattern of findings. Specifically, a meta-analytic review of studies looking at gender differences in aggression found that the between-sex difference in indirect aggression is very small (Card, Stucky, Sawalani, & Little, 2008).

Despite the between-sex differences in the use of different forms of aggression and consistent with the two-cultures theory (Maccoby, 1998), examining within-sex differences might be more relevant when assessing gender norms. To evaluate whether indirect and direct types of aggression are differentially tolerated within each gender group, researchers should look at which type of aggression is more normative among boys and which is more normative among girls. We expected that girls would exhibit more indirect than direct aggression, whereas boys would exhibit more direct than indirect aggression. Linked to our contention that rejection is used as a mechanism to regulate social norms, it could be expected that girls would be rejected for using less tolerated types of aggression among them, namely direct aggression, whereas boys would be more rejected by their peers for exhibiting indirect aggression.

**Between-group contrast effect.** Another aspect of the gender context concerns whether the broad peer group includes both sexes or just one. In her two cultures theory, Maccoby (1998) stated that the interactions among boys and those among girls are qualitatively and significantly different. She argued that because same-sex segregation is a natural and systematic process that occurs during childhood, girls' and boys' behavior is mainly shaped by the interactions that take place within each gender's culture. However, she stated that the mere presence of the "other-sex culture" could affect the "same-sex culture". In this regard, intergroup processes theories state that assimilation of the group's culture might be stronger when a social category is being made salient by the availability of social comparison to another social category (Tajfel, 1970). In other words, members of a group tend to differentiate themselves from members of other groups, reinforcing their own group stereotypes. Harris (1995) applied these ideas to the emerging differences between the two sex cultures, a process that would be explained by what she called the between-group contrast effect. According to her view, "sex-typed behaviors will be minimized at times and in places where the social categories male and female are not salient because the opposite sex is not present" (Harris,

1995, p. 473). Conversely, gender-specific behaviors and expectations would be amplified in the presence of the other-sex culture.

In relation to our hypothesis regarding rejection as a social regulation mechanism, the between-group contrast process would be evidenced in two ways. First, if the gender-typed norms are stronger in settings in which boys and girls coexist (i.e., mixed-sex schools), as compared to settings composed only of same-sex interactions (i.e., all-girl schools). Second, if rejection of direct types of aggression is stronger for girls in mixed-sex schools, compared to girls in all-girl schools. We tested these differences in this study.

### **The Present Study**

Altogether, the present study has three goals. First, we examine what types of aggression are more normative within three same-sex classroom-based peer groups (i.e., boys in mixed-sex schools, girls in mixed-sex schools, and girls in all-girl schools). We expected indirect aggression to be more normative than direct aggression among female groups, and direct aggression to be more normative among male groups. Second, we seek to provide evidence of the role of rejection as a mechanism through which groups regulate their members' behavior. Based on our prior hypothesis that direct aggression is less tolerated among girls and that indirect aggression is less tolerated among boys, we expected that girls would mainly be rejected by their same-sex peers for exhibiting direct types of aggression, whereas boys would mainly be rejected for exhibiting indirect types of aggression. Third, this study evaluates whether the group's availability for social comparison with the other sex makes a difference in the way aggression-related norms are defined and regulated. Based on previous evidence that indicates that males and females tend to behave differently in the presence of the other sex (for a review see Maccoby, 1990), we tested the between-group contrast process proposed by Harris (1995). To test this process we followed a series of analytical steps. First, we examined whether the within-group normative differences in types of aggression would be larger for girls

who are exposed to the "other-sex culture". In this regard, we expected that the difference between indirect and direct aggression would be larger for girls in mixed-sex schools, compared to girls in all-girl schools. Next, we looked at group differences between girls in both types of school in the extent to which they showed their normative aggressive behavior, namely, indirect aggression. We expected girls in mixed-sex schools to exhibit more of their own gender normative behavior compared to girls in all-girl schools. Lastly, we evaluated whether rejection of girls who exhibit non-normative behaviors (i.e., direct aggression) varied for both types of schools. Evidence of the between-group contrast would be found if girls in all-girl schools were less rejected for using direct aggression compared to girls in mixed-sex schools.

### **Method**

#### **Participants and Procedures**

The sample consisted of 682 boys and girls ( $M_{\text{age}} = 10.21$  years) from fourth, fifth and sixth grades enrolled in four schools from two cities in Colombia (Bogota and Barranquilla). Two schools in each city were mixed-sex and two were all-girls schools (see Table 1 for a break-down of the sample size). These schools included preschool, elementary school, middle school and high school grades. It is important to note that in most Colombian schools first to fifth grades belong to elementary school and sixth grade is the first year of middle school. A total of 31 classrooms took part in the study, ranging from 30 and 43 students per class. Based on parents' reports, participants came from low to middle socio-economic status. Active consent was requested from the children's parents. Those who decided to participate were rewarded with school supplies. The final sample represented over 90% of all the potential participants.

#### **Instruments**

Table 1. Break-down of sample size per type of school, city and sex.

City	Type of school		
	All-girls	Mixed-sex	
	Girl	Girl	Boy
Bogota	222	72	124
Barranquilla	114	77	73
Total	336	149	197

We used questionnaires that were originally designed in English. For translation purposes, the original English versions of the questionnaires were given to school psychologists in Colombia, who assessed their meaning and relevance for Colombian children. The questionnaires were then translated into Spanish by translators working in the fields of education and psychology, and then back-translated into English by a separate group of individuals to ensure that the meaning of items was retained in the translation.

### Aggression

A peer assessment procedure (see Rubin, et al., 2006 for a description) was used to collect information about aggressive behaviors of the participants. Children were presented a list of all the participating classmates in alphabetical order and were asked to checkmark as many classmates as they thought matched the description of indirect and direct aggressive behaviors. Two items were used to assess direct aggression (e.g., *someone who hits or pushes people*) and two items were used to measure indirect aggression (e.g., *someone who tries to keep others out of the*

*group*). Each child received a score on each item indicating how often she/he had been chosen for it by her/his peers. Only same-sex nominations were used to calculate these scores. Means of indirect aggression ( $\alpha = .79$ ) and direct aggression ( $\alpha = .87$ ) were then created using the two items for each.

### Rejection

Children completed a sociometric measure indicating, on a Likert scale, how much they liked each of their classmates (1 = *do not like the person*, 5 = *like the person very much*). Following Bukowski, Sippola, Hoza, and Newcomb (2000), the rejection score was calculated by counting the number of times each child received a score of one, which represents a measure of the extent to which a child is disliked by his/her peers.

### Score Adjustment for Same-Sex Group Size Differences

Considering the difference in the number of nominators in each of the groups (same-sex group size range in mixed-sex schools = 8 to 25; same-sex group size range in all-girl schools = 30 to 43) scores were corrected for group size using the

Table 2.

Means and standard deviations for the whole sample and per group (scores adjusted for same-sex group size).

Group	Indirect aggression		Direct aggression		Rejection	
	Mean	SD	Mean	SD	Mean	SD
All-girls	3.16	3.92	1.89	4.04	3.17	4.56
Mixed-sex girls	2.82	1.83	1.57	1.33	3.01	1.26
Mixed-sex boys	2.46	1.59	3.53	2.79	3.51	2.30
Total	2.88	3.02	2.29	3.36	3.23	4.38

regression procedure proposed by Velásquez, Bukowski, and Saldarriaga (2013). This procedure allows testing of between-group differences, by maintaining the original scale of the items (i.e., number of nominations), as opposed to standardized scores. First, we examined the extent to which changes in the same-sex group size has an effect on the number of nominations received. To do this, the each score was used as a dependent variable in a linear regression analysis in which the predictor was the same-sex group size minus one. Results in which rejection was the dependent variable showed that 24% of the variance of aggression scores was explained by the group size. A significant unstandardized regression coefficient indicated that for each unit increase in the group size, students' rejection score increased in 0.174. Based on this, a reference group of 24 students (which represents the median) was established. To make the adjustment, for each unit increase in this reference group size, students' scores were reduced in 0.174 units. Conversely, for each unit decrease in the group size, 0.174 units were added to the students' scores. This way, scores from all the groups were comparable.

A similar analysis was conducted for the aggression scores. However, given that we intended to compare scores in both types of aggression, an average number of nominations received for indirect and direct aggression was calculated. This value was included as the

dependent variable in the regression analysis. These results indicated that the group size explained 2% of the aggression scores. In this case, the unstandardized regression coefficient was 0.04, so the scores were adjusted accordingly. Descriptive information of these adjusted scores for the total sample and for each group is presented in Table 2.

## Results

### Group Differences in the Normativeness of Aggression

A repeated measures ANOVA was used in order to examine differences in the normativeness of each form of aggression used within each group. Type of aggression was the within-subject factor and sex group in each type of school (i.e., boys in mixed-sex schools, girls in mixed-sex schools, and girls in all-girl schools) was the between-subjects factor.

Results revealed a significant interaction between type of aggression and sex group ( $F_{(2,679)} = 49.75, p < .001, \eta^2 = .13$ ). As shown in Figure 1, post-hoc within-group simple effects conducted with the Bonferroni correction revealed that, as expected, boys exhibit more direct aggression than indirect aggression ( $d = .47$ ), whereas the girls in both school contexts exhibit indirect aggression more than direct aggression ( $d = .32$  for girls in all-girls schools;  $d$

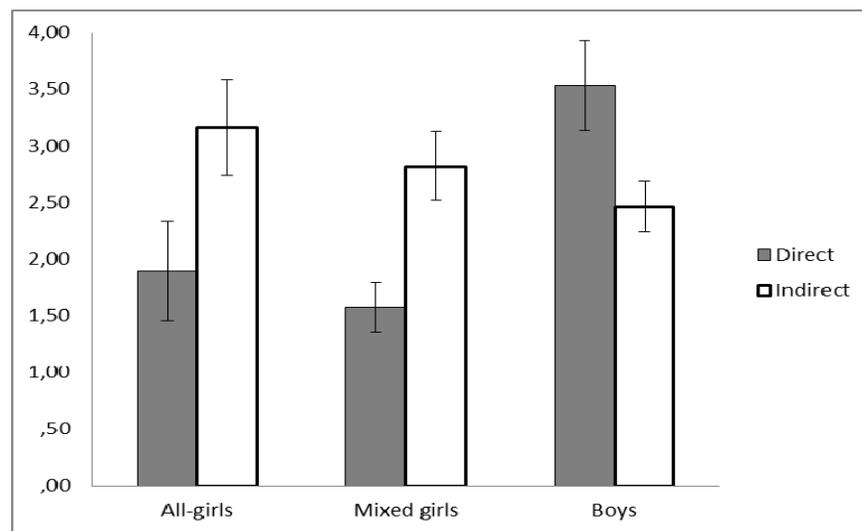


Figure 1. Prevalence of direct and indirect aggression for the three groups, corrected for group size.

= .78 for girls in mixed-sex schools). Next, we tested our hypothesis that the gender norm would be stronger among girls who have a social comparison (i.e., in mixed-schools) compared to those who are not exposed to the other-sex in their school context (i.e., in all-girl schools). On the one hand, between-group simple effects conducted with the repeated measures ANOVA described above revealed that girls from both types of schools did not differ either in direct or in indirect aggression. On the other hand, a one-way ANOVA was conducted for the girls subsample, including the difference between indirect and direct aggression as the dependent variable. The results from this analysis confirmed that

there is no significant difference in the extent to which girls from each type of schools exhibit indirect aggression relative to direct aggression ( $F_{(1,483)} = 0.01, p > 0.05$ ; mean difference for all-girls = 1.27; mean difference for mixed-sex girls = 1.25).

### Variations in the Association Between Rejection and Types of Aggression

Multilevel modeling, run with HLM 6.06 (Bryk & Raudenbush, 1992) was conducted to test between-group differences in the association between peer rejection and each type of aggression assessed (i.e., direct and indirect). For

Table 3

Equation coefficients of the level 1 slopes on level 2 group sex for each type of aggression

Variable	Unstandardized coefficient	SE	t	df	p
Intercept	3.24	0.19	16.58	30	0.000
Level 1. Direct aggression slope					
Intercept	0.08	0.08	0.99	29	0.328
Level 2					
Sex (girls = 1)	0.53	0.15	3.51	29	0.002
Level 1. Indirect aggression slope					
Intercept	0.65	0.14	4.49	29	0.000
Level 2					
Sex (girls = 1)	-0.47	0.18	-2.63	29	0.014

this and subsequent analyses, individual associations were modeled at level 1, and same-sex group characteristics were used as level 2 moderators. First, an unconditional model, which included only rejection as an outcome, was run to estimate the variability between and within groups. Based on intra-class correlations, 6.19%

of the variability was between groups and 93.81% of the variability was within groups. A chi-square test revealed that between-group variance was significant ( $\chi^2_{(30)} = 78.64, p < .05$ ).

Next, indirect and direct aggression (centered around their group mean) were included as

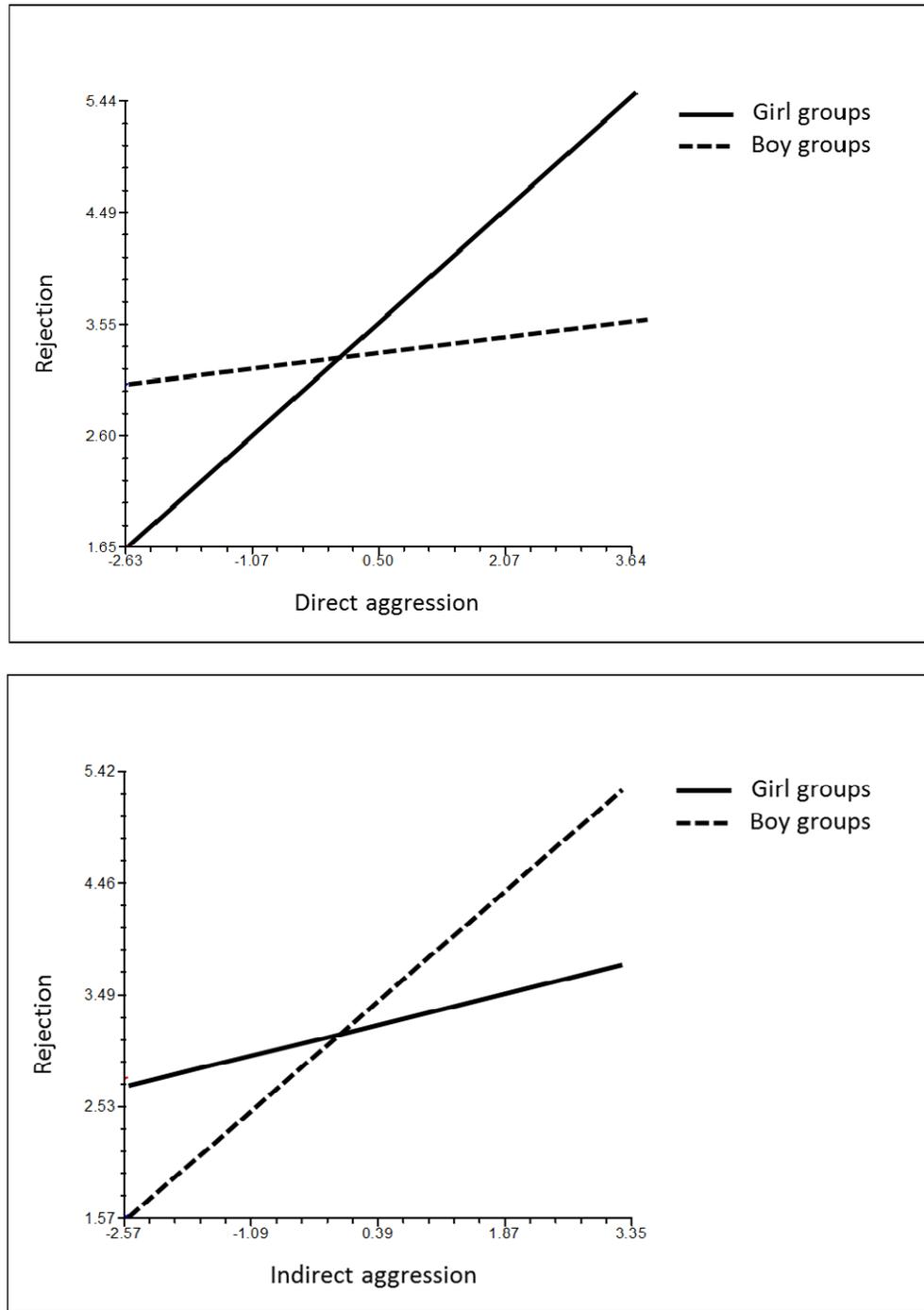


Figure 2. Slopes for the association between types of aggression and rejection as a function of sex.

predictors of peer rejection at level 1. This model will be referred to in later analyses as the “base model”. Results showed that both indirect ( $B = 0.33$ ,  $t_{(30)} = 3.41$ ,  $p < .05$ ) and direct ( $B = 0.41$ ,  $t_{(30)} = 4.10$ ,  $p < .01$ ) aggression were significant predictors of peer rejection. Based on the reduction on sigma-squared these variables together explained 34.2% of the within-group variance. Finally, it was noted that the slopes of both types of aggression are random; that is, they vary across groups ( $\chi^2_{(30)} = 62.63$ ,  $p < .05$ , and  $\chi^2_{(30)} = 81.84$ ,  $p < .05$  for indirect and direct aggression, respectively). This provided evidence that aggressive children are differentially rejected across groups.

### Variations as a Function of Sex

To test whether variations in the association between rejection and types of aggression could be explained by the sex of the group, group sex (coded as 0 = groups of boys in mixed-sex schools, and 1 = groups of girls, both in mixed-sex and same-sex schools) was included as a level 2 predictor of the level 1 indirect and direct aggression slopes. Compared to the base model described above, and based on tau reductions, the inclusion of this level 2 variable accounted for 27.28% of the between-group variance in the slope of direct aggression and 31.01% of the slope of indirect aggression. The estimation of fixed effects described in Table 3 revealed that, as expected, the association between direct aggression and rejection was stronger in groups composed of girls, whereas the association between indirect aggression and rejection was weaker for these groups (see figure 2). Taking into account that indirect aggression appears to be a less normative behavior for groups of boys and direct aggression seems to be a less normative behavior for groups of girls, these results provide support for our hypothesis that children are rejected for displaying non-normative behaviors in their same-sex peer groups.

### Variations as a Function of the Gender Composition of the Context

To test the between-group contrast process, multilevel analyses were also conducted. Specifically, we were interested in evaluating

whether the association between rejection and direct aggression was weaker for girls in all-girl schools compared to those in mixed-sex schools. Given that the purpose was to examine variations across groups of girls from both types of schools, the analyses were run excluding peer groups of boys. First, a new unconditional model was run with rejection as the dependent variable. Intra-class correlations in this model revealed that 6.53% of the variance was between-groups and 93.47% of the variance was within-groups. This model also showed that between-group variance was significant ( $\chi^2_{(19)} = 55.12$ ,  $p < .05$ ). Next, level 1 direct aggression was included as a predictor of rejection. In this model, direct aggression was found to be significantly related to rejection ( $B = 0.70$ ,  $t_{(19)} = 6.59$ ,  $p < .05$ ). Random effects indicators showed that this slope varied across groups ( $\chi^2_{(19)} = 74.19$ ,  $p < .05$ ). Then, and based on our hypothesis, type of school (coded as 0 = mixed-sex and 1 = all-girls) was included as a level 2 predictor of the level 1 direct aggression slope. Results indicated that individual direct aggression slope variations could not be explained by the gender composition of the group ( $B = 0.46$ ,  $t_{(18)} = 1.60$ ,  $p > .05$ ). These results failed to support our hypothesis, indicating that any variation in the association between direct aggression and rejection in girl peer groups is not related to whether girls are in a same-sex vs. a mixed-sex context.

### Discussion

The purpose of this study was to test the idea that rejection may act as a social regulation mechanism to encourage individuals to conform to the behavioral norms of the peer group, particularly those related to aggression. Given the well-documented sex-differences in the use of different forms of aggression, namely indirect versus direct aggression, we tested our hypotheses taking into account variations across sex and across the group’s opportunity for social comparison.

Our first hypothesis was that indirect types of aggression would be more typical among girls compared to direct types of aggression, and that the converse would be found among boys. Findings from the within-group comparisons

conducted with analyses of variance confirmed this hypothesis, suggesting that indirect aggression is more normative (and presumably more tolerated) than direct aggression among girls, whereas direct aggression is more normative than indirect aggression among boys. These results support the idea that males and females guide their behaviors based on gender-typed expectations that are particular to their sex-culture (Maccoby, 1998). On the other hand, taking into consideration that most previous research has focused on between-sex differences (for a review see Card et al., 2008), this study calls for more attention to look at within-group comparisons, particularly when it comes to the study of aggression-related norms. Examining the normativeness of each type of aggression within each gender might actually contribute to our understanding of between-sex comparisons. For example, one could argue that the reason why boys have been found to be more aggressive than girls (Eagly, 1987; Maccoby & Jacklin, 1980) is because aggression is more tolerated in their social groups.

Second, we tested Crosbie's (1975) idea that group penalizations are used as a mechanism to bring deviant members back within the groups' limits of acceptable behaviors. In this study, we proposed peer rejection as a form of social punishment that controls or regulates group members' behavior. Given that girls and boys seem to differ in the form in which they deliver aggressive behaviors towards others, we expected to find that rejection of aggressive behaviors would vary according to the behaviors that were normative within each sex group. Our findings indicated that rejection is used to punish individuals' indirect aggression in male groups. Conversely, in female groups, girls are rejected for using direct aggression. This suggests that in social contexts in which a negative behavior such as aggression is more salient, hence more normative, punishments against it will be decreased. These findings are consistent with evidence from previous studies that have shown that acceptance of an individual behavior varies as a function of the prevalence of such behavior within the group (Boivin et al., 1995; Chang, 2004; Stormshak et al., 1999; Wright et al., 1986). In this case we examined variations in peer

rejection while considering well-documented sex differences in the normativeness of different types of aggression. The fact that peer rejection occurs particularly for those behaviors that are non-normative within the peer group indicates that this may be one of the mechanisms through which group norms are reinforced by discouraging deviant behaviors.

Third, we tested the hypothesis which maintains that aggression-related peer norms would be more salient in cases in which social comparison is available. This idea was drawn from Harris' (1995) proposal that gender-typed behaviors would become more salient in the presence of an out-group with which to compare the in-group. In the case of our study, we compared aggression-related norms and its regulation mechanism for girl peer groups who face social comparison (i.e., in mixed-sex schools) with those who lacked such social comparison (i.e., in all-girl schools). Our findings failed to provide evidence that gender-typed norms might be more salient in the presence of the other sex, and that the mechanisms of regulation of such norms are more stringent in such a context. Results from the between-group analyses of variance showed that girls in mixed-sex schools show similar levels of indirect and direct aggression compared to girls in all-girls schools. In other words, the presence of an out-group (i.e., the other sex) does not affect the extent to which a particular type of aggression is tolerated within female groups. In addition, the process through which the group prevents deviation from the group norm does not differ either as a function of the availability of social comparison. This suggests that within-group processes are more important, compared to between-group contrasts, when it comes to the way in which aggression is expressed and to the mechanisms of regulation of such behavior.

### **Limitations and Future Directions**

One limitation of the current study was the sole reliance on peer report measures. Perspectives from different types of informants would be preferable when conducting social research. However, given the potential social desirability biases present in self-reports (Fiske &

Pearson, 1970; Saunders, 1991), we decided to rely on of peer assessments which ultimately involve multiple perspectives.

On the other hand, results related to the comparisons between the girls in the all-girls schools and the girls in the mixed-sex schools might be confounded by any possible selection processes that might be taking place. For example, parents who want their daughters to enroll in all-girls schools might differ from parents who prefer mixed-sex schools, leading to differences in the social background of these two groups of girls that were not accounted for. Our study lack information to identify selection criteria of girls in all-girls schools, which represents a second limitation.

Though it was difficult to locate an all-boys school which shared the characteristics of the all-girls schools, participants from single-sex boys' schools should be included in future analyses. This group would provide symmetry to the study and allow for more complex between- and within-sex comparisons.

In addition, participants should be followed over a period of time to shed some light as to the directionality of the revealed effects. Particularly, it is not clear from our findings whether group rejection occurs as a result of the exhibition of non-normative behaviors, or whether certain behaviors tend to be less typical in a group as a result of them being rejected by the other members. In other words, it is necessary to disentangle what might occur first, the emergence of norms or the rejection of particular behaviors. Only longitudinal data may further our understanding of these processes.

In sum, this study stresses the need to consider sex differences, especially when it comes to the study of contextual variations that implicate the peer group culture. We showed that aggression-related norms and their mechanisms of regulation differ between boys and girls. Further research looking at other gender relevant types of behavior (e.g., prosocial behavior, academic achievement) and other contextual characteristics (e.g., gender equity, group

cohesion) would certainly build on our current knowledge.

## References

- Björkqvist, K., Lagerspetz, K. M. J., & Kaukiainen, A. (1992). Do girls manipulate and boys fight? Developmental trends in regard to direct and indirect aggression. *Aggressive Behavior*, 18, 117 – 127.
- Boivin, M., Dodge, K. A., & Coie, J. D. (1995). Individual-group behavioral similarity and peer status in experimental play groups of boys: The social misfit revised. *Journal of Personality and Social Psychology*, 69, 269-279.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Sage Publications, Inc.
- Bukowski, W. M., Sippola, L. K., & Newcomb, A. F. (2000). Variations in patterns of attraction of same- and other-sex peers during early adolescence. *Developmental Psychology*, 36, 147-154. doi:10.1037/0012-1649.36.2.147
- Bukowski, W. M., Sippola, L. K., Hoza, B., & Newcomb, A. F. (2000). Pages from a sociometric notebook: An analysis of nomination and rating scale measures of acceptance, rejection, and social preference. In T. Cillessen and W. M. Bukowski (Eds.), *Recent advances in the study and measurement of acceptance and rejection in the peer system* (pp. 11-26), Volume in the *New Directions for Child and Adolescent Development*. San Francisco: Jossey Bass.
- Card, N., Stucky, B., Sawalani, G., & Little, T. (2008). Direct and indirect aggression during childhood and adolescence: A meta-analytic review of gender differences, intercorrelations, and relations to maladjustment. *Child Development*, 79, 1185-1229.
- Chang, L. (2004). The role of classroom norms in contextualizing the relations of children's social behaviors to peer acceptance. *Developmental Psychology*, 40, 691-702.
- Crick, N. R. (1997). Engagement in gender normative versus nonnormative forms of aggression: Links to social-psychological adjustment. *Developmental Psychology*, 33, 610 – 617.
- Crick, N. R., Casas, J. F., & Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology*, 33, 579-588.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development*, 66, 710-722.
- Crosbie, P. V. (1975). *Interaction in small groups*. London & New York: MacMillan.
- Eagly, A. H. (1987). *Sex differences in social behavior: A social role interpretation*. Hillsdale, NJ: Erlbaum.
- Espelage, D. L., Bosworth, K., Simon, T. R. (2000). Examining the social context of bullying behaviors in early adolescence. *Journal of Counseling and Development*, 78, 326-333.
- Fiske, D. H., & Pearson, P. H. (1970). *Theory and technique of*

- personality measurement. *Annual Review of Psychology*, 21, 49-86.
- Harris, J. (1995). Where is the child's environment? A group socialization theory of development. *Psychological Review*, 102, 458-489.
- Haselager, G. J. T., Cillessen, A. H. N., & Van Lieshout, C. F. M. (2002). Heterogeneity among peer-rejected boys across middle childhood: Developmental pathways of social behavior. *Developmental Psychology*, 38, 446-456.
- Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations*. Oxford, England: Wiley.
- Ladd, G. W., & Burgess, K. B. (1999). Charting the relationship trajectories of aggressive, withdrawn, and aggressive/withdrawn children during early grade school. *Child Development*, 70, 910-929.
- Little, T. D., Jones, S. M., Henrich, C. C. & Hawley, P. H. (2003). Disentangling the 'whys' from the "whats" of aggressive behavior. *International Journal of Behavioral Development*, 27, 122-133.
- Maccoby, E. E. (1990). Gender and Relationships. A developmental account. *American Psychologist*, 45, 513-520.
- Maccoby, E. E. (1998). *The two sexes: Growing up apart, coming together*. Cambridge, MA: Harvard University Press.
- Maccoby, E. E., & Jacklin, C. N. (1980). Sex differences in aggression: A rejoinder and reprise. *Child Development*, 51, 964-980
- Miller, D. T., & Prentice, D. A. (1994). Collective errors and errors about the collective. *Personality and Social Psychology Bulletin*, 20, 541-550.
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Oxford: Blackwell.
- Phillipsen, L. C., Bridges, S. K., McLemore, T. C., & Saponaro, L. A. (1999). Perceptions of social behavior and peer acceptance in kindergarten. *Journal of Research in Childhood Education*, 14, 68-77.
- Rubin, K. H., Bukowski, W., & Parker, J. G. (2006). Peer interactions, relationships, and groups. In N. Eisenberg (Ed.), W. Damon (Series Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 619-700). New York: Wiley.
- Salmivalli, C., Kaukiainen, A., & Lagerspetz, K. (2000). Aggression and sociometric status among peers: Do gender and type of aggression matter? *Scandinavian Journal of Psychology*, 41, 17-24.
- Salmivalli, C., & Voeten, M. (2004). Connections between attitudes, group norms, and behavior in bullying situations. *International Journal of Behavioral Development*, 28, 246-258.
- Saunders, D. (1991). Procedures for adjusting self-reports of violence for social desirability bias. *Journal of Interpersonal Violence*, 6, 336-344.
- Shaw, M. (1981). *Group dynamics* (3rd ed.). New York: McGraw-Hill.
- Stormshak, E. A., Bierman, K. L., Bruschi, C., Dodge, K. A., Coie, J. D., & the Conduct Problems Prevention Research Group (1999). The relation between behavior problems and peer preference in different classroom contexts. *Child Development*, 70, 169-182.
- Tajfel, H. (1970). Experiments in intergroup discrimination. *Scientific American*, 223, 96-102.
- Velásquez, A. M., Bukowski, W. M., & Saldarriaga, L. M., & (2013). Adjusting for group size effects in peer nomination data. *Social Development*, 56, 283-302.
- Wright, J. C., Giammarino, M., & Parad, H. W. (1986). Social status in small groups: Individual-group similarity and the social misfit. *Journal of Personality and Social Psychology*, 50, 523-536.