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Unpacking the misfit effect: Exploring the influence of gender and social norms on the association between aggression and peer victimization

Jonathan Bruce Santo

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Ellyn Charlotte Bass,[1] Lina Maria Saldarriaga,[2]
Ana Maria Velasquez,[3] Jonathan B. Santo,[1]
and William M. Bukowski[4]

Abstract

Social norms are vital for the functioning of adolescent peer groups; they can protect the well-being of groups and individual members, often by deterring harmful behaviors, such as aggression, through enforcement mechanisms like peer victimization; in adolescent peer groups, those who violate aggression norms are often subject to victimization. However, adolescents are nested within several levels of peer group contexts, ranging from small proximal groups, to larger distal groups, and social norms operate within each. This study assessed whether there are differences in the enforcement of aggression norms at different levels. Self-report and peer-nomination data were collected four times over the course of a school year from 1,454 early adolescents (M_{age} = 10.27; 53.9% boys) from Bogota, Colombia. Multilevel modeling provided support for social regulation of both physical aggression and relational aggression via peer victimization, as a function of gender, grade-level, proximal (friend) or distal (class) injunctive norms of aggression (perceptions of group-level attitudes), and descriptive norms of aggression. Overall, violation of proximal norms appears to be more powerfully enforced by adolescent peer groups. The findings are framed within an ecological systems theory of adolescent peer relationships.

Keywords

Relational aggression, physical aggression, peer victimization, misfit effect, social norms

The Effect of the Proximity of Social Norms on the Misfit Effect

Consistent with a contextualist perspective of social development (Bronfenbrenner, 1979), peer relations are inextricably situated within the social context; both individual behaviors and interpersonal interactions vary, sometimes profoundly, as a function of contextual differences. An important vehicle through which context affects social behavior is via social norms, which provide a reference point for inferring appropriate behavior as well as for the evaluation of and responses to the behavior of others (Bell & Cox, 2015; Chang, 2004; Cialdini & Trost, 1998). Unique to each group, social norms can be thought of as the socio-behavioral profile of a peer group (Berger, 2008) and can reflect the actual, objective standard of behavior (i.e., descriptive norms) or an inferred consensus of behavior (e.g., injunctive norms; Bell & Cox, 2015). Social norms reflect the perception and construal, of social behaviors, thus altering both the prevalence and reactions to such behaviors within that context (Chang, 2004).

One function of social norms is to protect peer group functioning (e.g., Bell & Cox, 2015). For example, social norms discouraging aggression protect members' well-being and group cohesion. However, this function necessitates the existence of social regulation mechanisms to deter these behaviors (Bell & Cox, 2015; Horne, 2001; Kitts, 2006; Velasquez et al., 2016). Consistent with evidence that the primary motive of social behavior is to gain social acceptance and status (Adler & Adler, 1998), social regulation mechanisms in adolescence generally involve decrements to either acceptance or social status (Velasquez et al., 2016), as summarized by the misfit effect of the person–group similarity model: Individuals who violate social norms are at risk for social consequences such as social rejection, peer victimization, or loss of acceptance or popularity (Boivin et al., 1995). This effect has been well-established for violations of peer group norms of aggression in a range of peer group contexts (e.g., Bass et al., 2016; Boivin et al., 1995; Santo et al., 2017; Velasquez et al., 2010, 2016). However, social norms and hence the misfit effect can operate at multiple levels of the social environment, yet no research to date has evaluated how the level of the context influences these effects.

For adolescents, the peer group constitutes a highly influential, salient, and meaningful social context (Bronfenbrenner, 1979);

[1] University of Nebraska Omaha, USA
[2] Aulaz en Paz, Bogota, Colombia
[3] Universidad de Los Andes, Colombia
[4] Concordia University, Canada

Corresponding author:
Jonathan Bruce Santo, Department of Psychology, University of Nebraska Omaha, 6001 Dodge St., 347"S" Arts & Sciences Hall, Omaha, NE 68182, USA.
Email: jsanto@unomaha.edu

adolescents are embedded within peer groups at multiple levels of proximity, ranging from small (proximal) cliques of 4–10 individuals to (distal) school-wide peer groups of hundreds of individuals. Each of these levels of peer group represents its own social context with its own norms, which may be regulated via social consequences. Therefore, in expansion of the misfit effect, our study aims to investigate the effect of both distal and proximal injunctive norms of aggression in addition to same-sex classroom descriptive norms, to assess whether proximity of peer group norms influences the magnitude of social sanctioning by peer victimization.

Social Norms of Aggression

As noted, social norms often function to regulate behaviors that have the potential to do harm to individuals and groups, particularly antisocial behavior (Oliver, 1980). Evidence from a vast body of research corroborates that individuals' aggressive behavior is related to norms of aggression (e.g., Chang, 2004; Nipedal et al., 2010). Exposure to contexts in which aggression is normative has been linked to increasing prevalence of individuals' aggression (e.g., Berger, 2008); in such contexts, aggression may be normalized, such that it becomes an acceptable way of acting or solving conflicts. In support, the establishment of an association between aggressive behavior and peer acceptance underlies the influence of norms on aggressive behavior (Chang, 2004), and adolescents' engagement in aggressive behaviors is related to their perception of peer reinforcement and acceptance of the behavior (Potocnjak et al., 2011).

Types of aggression. In understanding the effects of peer group norms on aggressive behavior, it is important to consider the different forms that such behavior may take. Due to their differences in expression and underlying motivations (Crick & Grotpeter, 1995), physical aggression and relational aggression have been shown to have different relations with social outcomes (e.g., Bass et al., 2016; Ostrov, 2010; Santo et al., 2017; Velasquez et al., 2010). Physical aggression refers to acts or threats of acts to physically harm others and may be driven by the motivation to seek or assert dominance, whereas relational aggression refers to acts or threats of acts to harm others' social relationships, reputation, status, or acceptance (Crick & Grotpeter, 1995). Although often expressed concurrently (e.g., Bass et al., 2016; Santo et al., 2017; Velasquez et al., 2010), these forms of aggression are distinct and social norms may be specific to a certain type of aggression.

Social Norms and Mechanisms of Social Regulation

Social norms are often regarded as mechanisms for social control, providing guidelines and *rules* for behavior (Cialdini & Trost, 1998); like other rules, violation of social norms results in aversive consequences. That is, for social norms to be effective means for maintaining social order and well-being, there must be enforcement mechanisms. These are referred to as social sanctions or regulatory forces (Bell & Cox, 2015; Horne, 2001; Kitts, 2006; Velasquez et al., 2016) and characterize enforcement norms, which prescribe the consequences that will ensue whether social norms are violated (e.g., Bell & Cox, 2015; Velasquez et al., 2016).

Conformance to social norms is largely motivated by the anticipation of a social reward (Cialdini & Trost, 1998): acceptance by the group (Adler & Adler, 1998; Bell & Cox, 2015). If social acceptance is the reward for conformity, then it is not surprising

that decrements in social acceptance are a primary punishment for deviance (e.g., Bell & Cox, 2015; Boivin et al., 1995; Velasquez et al., 2016). Internalization of threats to social acceptance reduces the prevalence of the deviant behavior (e.g., Adler & Adler, 1998; Bell & Cox, 2015).

The general misfit effect of aggression. The social regulation of aggressive behavior through social consequences has been well-evidenced in peer groups. Although there are contexts in which positive sanctioning of aggressive behavior is evident, such that peer group norms promote or reward aggressive behavior, for example, when highly aggressive peer groups reinforce continued aggression (e.g., Kuppens et al., 2008; Thomas et al., 2006) or when popular adolescents use relational aggression to further their status (e.g., Cillessen & Rose, 2005; Juvonen et al., 2003; Rodkin et al., 2006), in early adolescent peer groups, aggressive behavior is often negatively sanctioned. Indeed, a diverse body of literature has supported that aggressive behavior is associated with peer victimization and rejection (e.g., Bass et al., 2016; Ostrov, 2010; Santo et al., 2017; Velasquez et al., 2010, 2016). Moreover, social regulation of aggressive behavior is seen across age groups and cultures (e.g., Bass et al., 2016; Ostrov & Godleski, 2013; Santo et al., 2017; Velasquez et al., 2016), demonstrating a relatively universal peer group dynamic. Although both physical aggression and relational aggression are subject to social sanctioning (e.g., Bass et al., 2016; Ostrov, 2010; Santo et al., 2017; Velasquez et al., 2010), some evidence suggests greater regulation of physical aggression (Santo et al., 2017) because it is often easier to observe and the potential for relational aggression to be used by socially skilled adolescents to enhance their status.

That aggressive behavior elicits subsequent victimization due to social sanctioning does not rule out the potential for continued or increased aggressive behavior in response; rather, it seems that victimization sometimes catalyzes further aggressive behavior (e.g., Ostrov, 2010). The bidirectional nature of the relationship between aggression and victimization may lead to some adolescents being trapped in an ongoing cycle of victimization due to their propensity to respond aggressively to these "attacks" from their peer group.

The gender-based misfit effect of aggression. Because children and early adolescents tend to associate most with their same-sex peers, a de facto gender segregation, unique peer dynamics, including social norms, may develop for each gender (Maccoby, 1998). Thus, due to gender differences in the normativeness of aggressive behavior (Busching & Krahe, 2015), the misfit effect of aggression may differ for boys and for girls: Nonnormative aggressive behaviors may constitute social violations because they deviate from gender norms. In particular, based on gender differences in the prevalence of physical aggression (e.g., Lansford et al., 2012), it is considered more normative for boys than for girls. Consistent with a gender-based misfit effect, previous research has corroborated that the relation between physical aggression and peer victimization is stronger for girls than for boys (Bass et al., 2016; Santo et al., 2017; Velasquez et al., 2010). As may be expected given the contradictory evidence of a gender difference in relational aggression (e.g., Bass et al., 2016; Lansford et al., 2012; Velasquez et al., 2010), there is similarly inconsistent evidence for a gender-based misfit effect for relational aggression: Some research has identified that the negative sanctioning of relational aggression is stronger for boys than for girls (Santo et al., 2017; Velasquez et al., 2010), but this effect has failed to emerge in other research (Bass et al., 2016).

The peer group norm misfit effect. Although social norms deterring aggressive behavior are common due to their protective function (e.g., Oliver, 1980), social norms of aggression vary across peer group contexts, leading to cross-contextual differences in the social regulation of aggression (e.g., Boivin et al., 1995). That is, aggressive behavior is only penalized in contexts in which it is nonnormative. Extensive support has been provided for this effect (e.g., Bass et al., 2016; Boivin et al., 1995; Santo et al., 2017; Velasquez et al., 2010). There is also evidence of specificity of the misfit effect for each physical and relational aggression; the degree to which each is penalized depends on the norm of that particular form of aggression (Bass et al., 2016; Santo et al., 2017; Velasquez et al., 2010).

Proximity of social norms. Because of these essential functions and adaptive utility, social norms exist in all social groups, whether composed of a tightly knit group of a few individuals or millions of individuals with a common national origin. Because all individuals are embedded in multiple social contexts (Bronfenbrenner, 1979), they are exposed to social norms at multiple levels of context (Rodkin & Ryan, 2012). These "levels" can be conceptualized as differing in proximity: Smaller groups in which individuals frequently and directly participate (e.g., friendship groups or cliques) can be considered more proximal, whereas larger, broader, and more loosely defined contexts in which individuals participate (e.g., classrooms or national/cultural groups) can be considered more distal. Differences in proximity are largely based on the degree of cohesion or the degree to which individuals within the group depend on one another and the group as a whole (Horne, 2001).

There is some evidence that social norms differ in salience, and thus influence, on individuals' behavior, based on the peer group which holds them (e.g., Berger & Caravita, 2016; Horne, 2001). Proximity, based on the level of cohesion, may be a factor that determines the salience of norms, such that social norms of more cohesive or proximal peer groups may have more influence (e.g., Horne, 2001). This is likely due to greater social sanctioning; that is, deviance from social norms is more likely to be "punished" in such groups due to individuals' greater investment in protecting the well-being of the group and of individuals within the group because of greater dependence and value placed on the group and the benefits it provides. For the same reasons, social sanctioning in these proximal peer groups is also more impactful (e.g., Horne, 2001). Further, it is also possible that the nature or processes of social sanctioning differ qualitatively as well as in strength or impact. However, no research could be located providing a direct analysis of social sanctioning at the different levels of peer group context in which adolescents are embedded, a gap in the literature addressed by our study.

Not only do social norms exist at multiple levels of context, but different *types* of social norms represent complementary but unique social processes or functions (see Bell & Cox, 2015). Commonly used to explain the effect of group-level aggression on individual's behavior, descriptive norms refer to the actual prevalence of a behavior within a group (e.g., Bell & Cox, 2015) and are usually indexed by aggregating individual behaviors into a peer group mean (Veenstra et al., 2018). The utility of descriptive norms is in providing a relatively objective characterization of the peer group context. However, as has been noted in several domains, there is often a discrepancy between the actual prevalence of behavior and the *perceived* prevalence of a behavior (e.g., Miller & McFarland, 1991), the latter of which forms the basis for the injunctive norm, or the perception of the groups' endorsement of the

behavior (e.g., Bell & Cox, 2015; Cialdini & Trost, 1998). That is, individuals' base their own behavior on what they *perceive* to be common, and therefore accepted, within the group. In fact, it is reasonable to argue that individuals' perceptions of behavior in the peer group context, injunctive norms, are the greater influencer of behavior.

The Current Study

The purpose of this study is to replicate and expand upon the misfit effect of aggression by providing several unique contributions. Notably, longitudinal analyses allow for the temporal course to be taken into account; the misfit effect predicts that aggressive behavior should result in *subsequent* victimization, yet most research has only examined concurrent associations (e.g., Bass et al., 2016; Boivin et al., 1995; Santo et al., 2017; Velasquez et al., 2010). Moreover, this study is the first to simultaneously assess variability in victimization in different ways with four levels of analysis: the general misfit effect (only individual-level behavior), the gender-based misfit effect (based on same-sex classroom norms), and both the proximal and distal peer group norm misfit effect.

Hypotheses

According to the general conceptualization of the misfit effect, we expected both physical aggression and relational aggression to be unique positive predictors of subsequent peer victimization, with a stronger effect for physical aggression. Consistent with a gender-based misfit effect, we expected a stronger misfit effect of physical aggression for girls than for boys and a stronger misfit effect of relational aggression for boys than for girls. Characterizing the peer group norm misfit effect, we expected a stronger misfit effect of either form of aggression in peer groups in which injunctive norms do not support aggression or descriptive norms indicate that type of aggression is nonnormative. We also expected that proximal (friend group) injunctive norms would have a stronger effect than distal (classroom) injunctive norms.

Method

Participants

Data were collected from 1,454 early adolescents in Bogota, Colombia ($M_{age} = 10.27$, $SD = 1.08$, range of 8–14). Participants were students from 63 classes across eight schools (class size: 15–34 students, $M = 23.08$, $SD = 4.46$); 29.1% were in fourth grade, 34.1% in fifth grade, and 36.7% in sixth grade. Gender distribution was relatively equal (53.9% boys). Most participants considered themselves to be of lower class to middle class socioeconomic status (SES) ($M = 2.98$; $SD = 0.99$; 73.7% between 1 and 3; Esbjorn & Fjalland, 2012).

Procedures

Four waves of data were collected across one school year, approximately every 10 weeks. Permission was secured from administrators of all participating schools, and informed consent letters were sent home with students for parents to read and sign on behalf of their children (80% consent rate overall, range: 65%–100% by class). Children assented on the first day of data collection. Children who did not assent or whose parent did not consent were given an

alternative activity. Prior to administration, all measures were translated from English into Spanish by local collaborators in the fields of psychology and education. Translated measures were administered in group format during a regular homeroom class session.

Measures

Demographic information. Participants were asked to indicate their age, gender, and SES using Colombia's national 6-point SES stratification system (Esbjorn & Fjalland, 2012). A dichotomous SES group variable was created using the lower three socioeconomic groups (estratos 1, 2, and 3; 61.9% of the same-sex classrooms) as lower SES and the upper three socioeconomic groups (estratos 4, 5, and 6) as upper SES (38.1% of the same-sex classrooms). Information about grade level was acquired from school administrators.

Peer victimization. Peer victimization was assessed by self-report at each wave using two items adapted from the Revised Class Play checklist (RCP) (Masten et al., 1985; $\alpha = .68–.74$; see the Online Appendix D for items). Participants responded on a Likert-type scale ranging from 1 (*never true of me*) to 5 (*always true of me*). Higher scores indicate greater levels of peer victimization.

Aggression. At all waves of data collection, indices of physical and relational aggression were provided by unlimited same-sex peer nominations on the RCP (Masten et al., 1985; $\alpha = .89–.90$ and $\alpha = .82–.84$, respectively; see the Online Appendix D for items), validated for use in a Colombian context (Bass et al., 2016). Participants were asked to select all students on their class roster who fit each description. Scores on each subscale represent the mean number of same-sex peer nominations for each child; greater scores indicate a greater number of nominations received from same-sex peers.

Prior to analysis, peer nomination data were corrected for the size of the same-sex classroom (see Velasquez et al., 2016). Specifically, each subscale was regressed on same-sex classroom size, which explained approximately 1% of the variance in both relational aggression and physical aggression. The residuals were saved from each analysis and functioned as the "corrected" scores. Next, physical aggression and relational aggression were transformed using a log function to address the severely positively skewed distributions. Finally, as preparation for creating and analyzing the interaction terms for physical aggression and relational aggression, scale scores were standardized using *z*-scores.

Proximal and distal injunctive norms of aggression (at the individual level). Proximal ($\alpha = .76–.86$) and distal injunctive norms of aggression ($\alpha = .83–.88$) were assessed by self-report at each wave, using three items for each (see the Online Appendix D), using a Likert-type scale ranging from 1 (*never true of me*) to 5 (*always true of me*); higher scores indicate greater permissiveness toward aggression. To validate the conceptualization of proximal (i.e., friends) and distal (i.e., classmates) injunctive norms, correlations were compared to personal endorsement of aggression (e.g., "I think it is ok to be aggressive"). As expected, the semi-partial correlation with personal endorsement was weaker for distal norms ($r = .16$, $p < .001$) and stronger for proximal norms ($r = .31$, $p < .001$) providing support for our characterization.

Descriptive norms of relational and physical aggression (same-sex classroom level). Scores on the physical and relational aggression RCP subscales were aggregated to the same-sex classroom level to provide indices of the descriptive social norms of physical and relational aggression, respectively. Descriptive norms of each type of aggression reflect the mean level in the same-sex classroom group with higher values indicating that the behavior is more normative.

Change over time. To model potential change over time in peer victimization, each time point was spaced equally apart. T1 was coded as "−3," T2 as "−2," T3 as "−1," and T4 as "0," such that the intercept reflects differences in children's peer victimization at the end of the study.

Data Analysis

Descriptive statistics for each wave of data were assessed (e.g., variability, skewness, and kurtosis). Because of the nested nature of data and because analyses included between-group variables aggregated from within-subject variables, the main hypotheses were tested using multilevel modeling to account for the inherent nonindependence of the data. We thoroughly compared various nesting approaches (see the Online Appendix A) to determine how best to nest participants.

The full model (see figure provided in the Online Appendix A) consisted of three levels of variables predicting peer victimization. Before adding predictors to the model, variability at each level was assessed via intra-class correlations. At each of the following steps of model construction, the added effects were assessed for statistical significance as well as model improvement, as indexed by the proportional reduction in prediction error and χ^2 difference test.

The Level 1 (within-subject) model was comprised of time (fixed effect at Level 2, i.e., not allowed to vary between individuals), relational aggression (random effect at Level 2, i.e., allowed to vary between-individuals), physical aggression (also random effect at Level 2), and the interactions between time and physical aggression and between time and relational aggression (both fixed effect at Level 2). Each predictor was added one at a time in the order indicated, other than the two interactions, which were added simultaneously.[1]

At Level 2 (between-individual level), age (standardized) was added as a covariate. At Level 3 (same-sex classroom level), predictors were added in three separate blocks. In the first block, gender, grade, and SES of the same-sex classroom were added. Next, the proximal (friend) and distal (classroom) injunctive norms of aggression were added. Finally, the descriptive norms of relational and physical aggression were added in the last block.

There was a small amount of missing data at the within-individual level (0.69%) and at the individual level (1.31%) largely due to children absent from school on the day of testing. As such, the missing data was assumed to be missing at random.

Results

See the Online Appendix C, for descriptive statistics and correlations. Only significant effects which notably reduced prediction error and significantly improved the models are described below.

Multilevel Modeling

The unconditional model, including only the criterion variable peer victimization, revealed that while most variability was at Level 1 (within-subject; 50.45%), there was also significant variability at
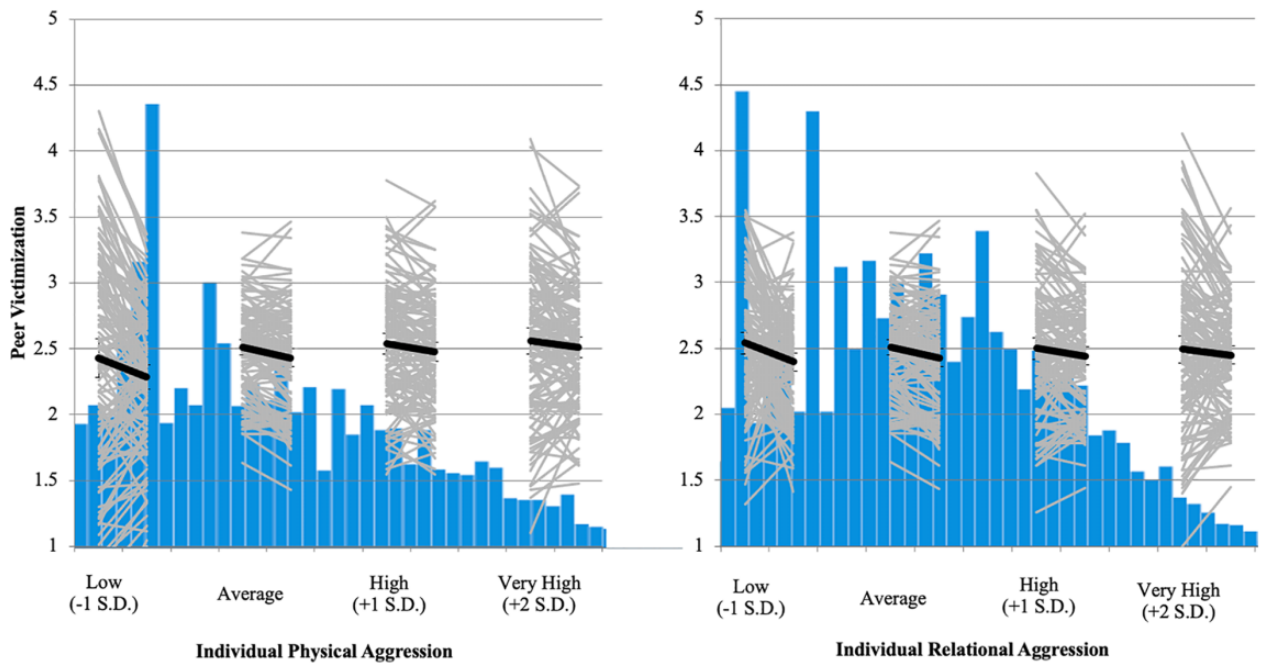
Figure 1. Final Model Estimates for Change Over Time in Peer Victimization at the Same-Sex Classroom Level ($n = 126$) at Varying Levels of Individual Physical and Relational Aggression Against a Backdrop of the Distribution of Each Form of Aggression.
Note. The Same-Sex Classroom Means Are Also Provided With 95% Confidence Intervals.

Level 2, between-subjects; 39.74%; $\chi^2_{(1255)} = 4{,}887.5$, $p < .001$, and at Level 3, between-same-sex classrooms; 9.80%; $\chi^2_{(124)} = 367.7$, $p < .001$. This proportion of variability at all levels justifies the nesting approach we adopted (see the Online Appendix A, for more details).

Change over time was added to the Level 1 model (fixed at Level 2). There was a modest, though not significant, decrease in peer victimization over the school year; a reduction in prediction error and significant improvement in the model resulted. Moreover, there was significant variability in the effect at the individual level, $\chi^2_{(1255)} = 5{,}061.8$, $p < .001$, and the same-sex classroom level, $\chi^2_{(124)} = 253.6$, $p < .001$.

Next, relational aggression was added to the model at Level 1 (as a random effect) and was a significant positive predictor of peer victimization, such that greater relational aggression was associated with increased peer victimization overall. When added next, physical aggression (also random) also positively predicted peer victimization; greater physical aggression was associated with increased peer victimization overall. After the addition of physical aggression, relational aggression, though still positive, was no longer significant. The addition of the individual aggression variables significantly improved the models.

Two-way interactions with time were then added to the Level 1 model (random at Level 3), but neither interactions (time by physical aggression, time by relational aggression) were significant or led to significant model improvement. Significant variability in relational aggression, $\chi^2_{(1054)} = 1{,}017.6$, $p < .001$, and physical aggression, $\chi^2_{(1054)} = 1{,}262.6$, $p < .001$, remained at Level 2. All told, the within-individual predictors reduced prediction error by 5.85%, significantly improving the model, $\chi^2_{(30)} = 84.2$, $p < .001$.

We added age (standardized) as a between-individual covariate on the Level 2 effects of peer victimization at the end of the study, the slope of physical aggression, and the slope of relational aggression to illustrate how the same-sex classroom grade effects (added

later at Level 3) likely reflect norm differences as opposed to age-related changes. There were no significant effects, nor was there a relevant reduction in prediction error or improvement.

Although there was no significant variability in relational aggression, $\chi^2_{(122)} = 116.4$, $p = .55$, physical aggression, $\chi^2_{(122)} = 121.6$, $p = .58$, the time by relational aggression interaction, $\chi^2_{(120)} = 107.5$, $p = .82$, or the time by physical aggression interaction, $\chi^2_{(120)} = 129.7$, $p = .39$, at the level of the same-sex peer-group (Level 3), Level 3 hypothesis testing (of same-sex classroom norms) proceeded with the assumption that there would be significant variability in the population as a whole (Kline, 2011). Figure 1 illustrates the same-sex classroom level change in peer victimization at varying levels of individual physical and relational aggression.

Same-sex classroom contextual differences were examined by first adding gender, grade, and SES group as Level 3 predictors of peer victimization at the end of the study, change over time, the slope of physical and relational aggression, and the interactions between each form of aggression and change over time. There was a significant same-sex classroom gender difference on time by relational aggression interaction (see Figure 2). Girls low in relational aggression were more likely to decrease in peer victimization over the course of the study compared to boys. However, at higher levels of relational aggression, boys were more likely to decrease in victimization, whereas girls were more likely to increase in victimization over the course of the study (Figure 2). For a discussion of significant grade and SES differences, see the Online Appendix B.

We then added the proximal (friend) and distal (class) injunctive norms of aggression as predictors of peer victimization at the end of the study, the change over time, the slope of physical and relational aggression, and the interactions between each form of aggression and change over time. There was a significant effect of distal and proximal injunctive norms of aggression on the association between
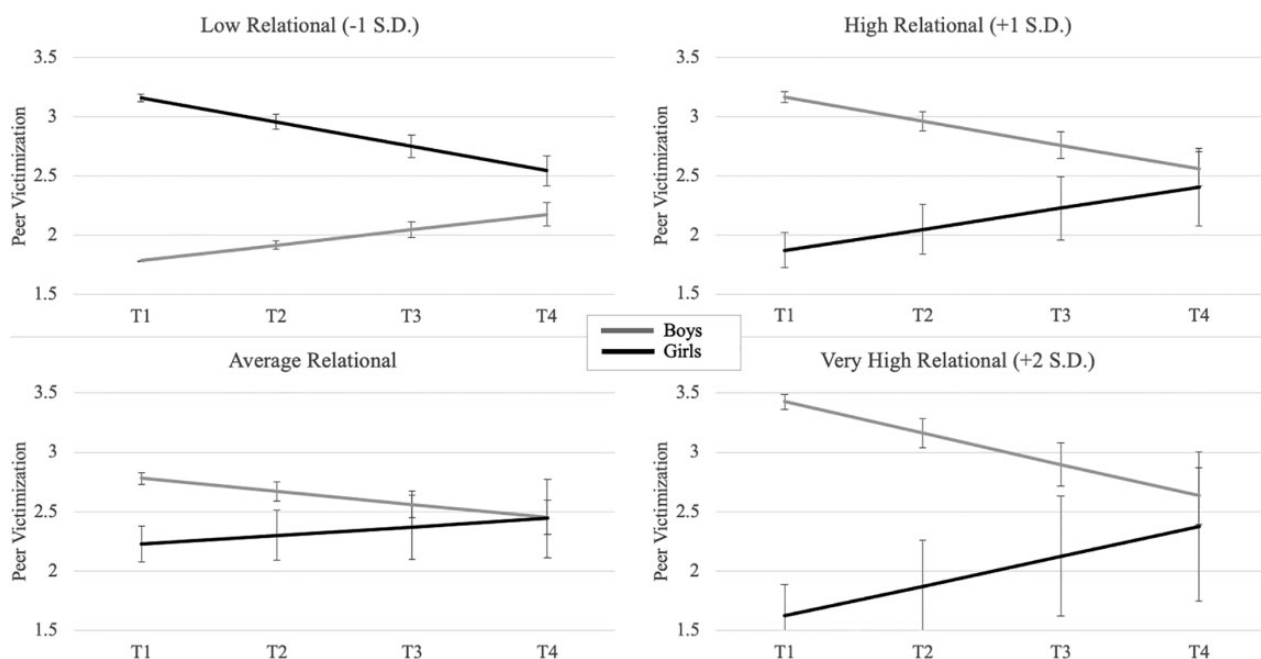
Figure 2. Final Model Estimates for Change Over Time in Peer Victimization as a Function of the Gender of the Same-Sex Classroom.
Note. The range of the y-axis has been shrunk to highlight the effects; the raw scores ranged from 1 to 5, $n_{(participants)} = 1,454$. Error bars reflect the 95% confidence interval.

physical aggression and peer victimization and only an effect of proximal injunctive norms of aggression on the association between relational aggression and peer victimization (Figure 3). To explain, physical aggression and relational aggression were both more strongly associated with victimization among groups in which children perceived their classmates to be less permissive of aggression. Additionally, relational aggression was more strongly associated with victimization within groups in which children perceived their friends to be permissive of aggression.

Lastly, we added the same-sex classroom descriptive norms of both physical aggression and relational aggression as predictors of peer victimization at the end of the study, the change over time, the slopes of physical and relational aggression, and the interactions between each form of aggression and change over time. Same-sex classrooms higher in physical aggression nominations reported more victimization at the end of the study. Additionally, for same-sex classrooms high (normative) in relational aggression, higher amounts of relational aggression were associated with larger decreases in peer victimization over the course of the year. Among same-sex classrooms low (nonnormative) in relational aggression, higher levels of relational aggression were associated with larger increases in victimization. The opposite pattern was observed as a function of the same-sex classroom norms of physical aggression (Figure 4).

Finally, we tested for all two-way interactions of gender, grade, and SES with aggression norms on all the Level 1 effects. There were no significant effects, nor improvements to any of the models, so these interactions were ultimately dropped from the final model. Table 1 contains the coefficients for the final model.

Discussion

In contrast to previous research, our analyses provided varied and nuanced support for the hypothesized misfit effects of aggression.

Consistent with the general misfit effect of aggression and extensive previous research, including in Colombia (Bass et al., 2016; Santo et al., 2017; Velasquez et al., 2010, 2016), evidence of social regulation of both physical aggression and relational aggression emerged. That is, those who engaged in either form of aggression were subsequently penalized via peer victimization. Such enforcement of norms deterring aggression is not surprising, given that a primary function of social norms is to protect the members' and groups' well-being (e.g., Bell & Cox, 2015; Horne, 2001; Oliver, 1980).

In replication of previous research conducted in a Colombian context (Santo et al., 2017), this effect was stronger for physical aggression than for relational aggression. It is possible that this is merely a reflection of the greater visibility of physically aggressive behavior (e.g., getting into physical fights). Relational aggression, in contrast, is often more subtle (e.g., spreading rumors); it may be easier for individuals to "get away with" relational aggression. Evidence of greater social regulation of physical aggression is also consistent with evolutionary theory of the protective purpose of social norms (e.g., Bell & Cox, 2015; Horne, 2001; Oliver, 1980); physical aggression may be perceived as a greater, more direct, and more serious threat and therefore is more strongly regulated. In contrast, despite having the potential to seriously threaten both group and individual well-being, relationally aggressive behaviors can also be used as manipulative strategies to maintain group cohesion and the social status quo (Cillessen & Rose, 2005). Thus, relational aggression may actually provide benefits to group functioning at times and therefore there may be less motivation and tendency to penalize such behavior.

To our surprise, no support was provided for the gender-based misfit effect of aggression: There was no evidence that the social consequences of physical aggression were greater for girls (in contrast to Bass et al., 2016; Santo et al., 2017; Velasquez et al., 2010)
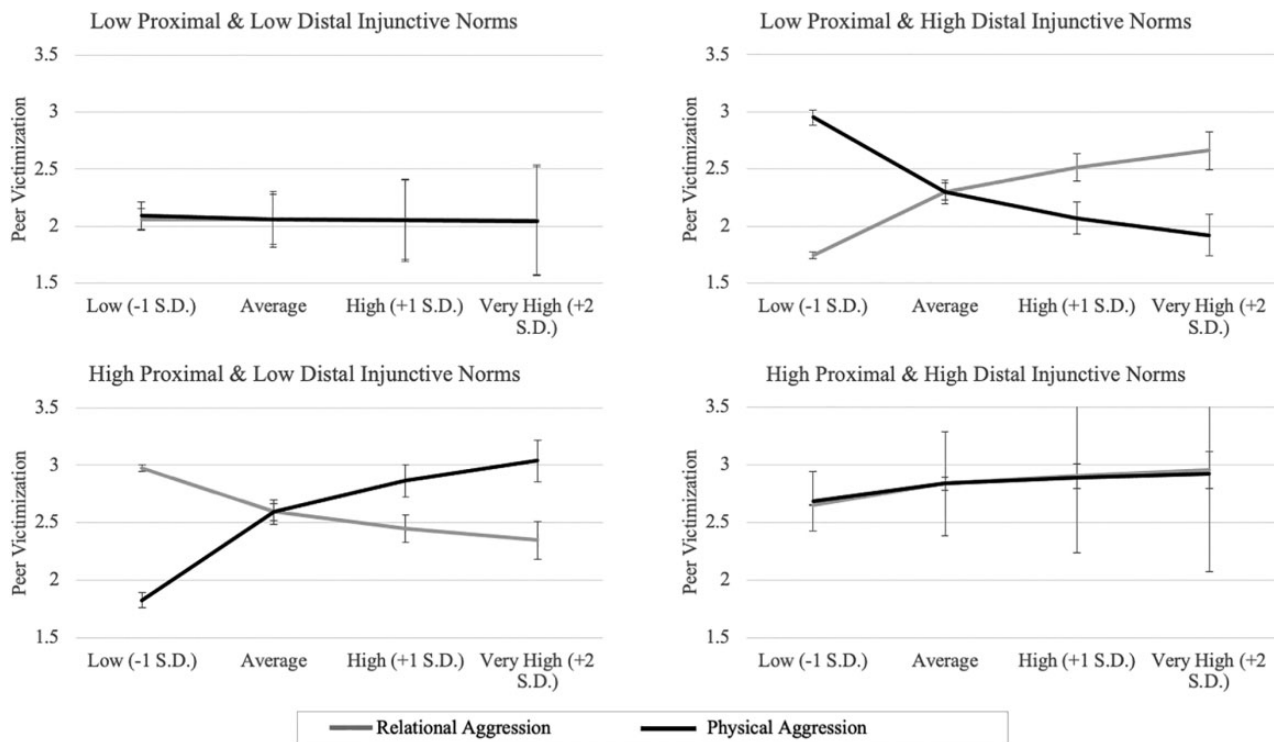
Figure 3. Final Model Estimates for Associations of Physical and Relational Aggression With Peer Victimization as a Function of the Distal and Proximal Injunctive Norms of Aggression of the Same-Sex Classroom.
Note. The range of the *y*-axis has been shrunk to highlight the effects; the raw scores ranged from 1 to 5, $n_{(participants)} = 1,454$. Error bars reflect the 95% confidence interval.

or that the social consequences of relational aggression were stronger for boys (in contrast to Santo et al., 2017; Velasquez et al., 2010). However, previous studies outlining clear gender-based misfit effects of aggression measured victimization using peer nominations as opposed to self-reports, as in this study. Peer nominations of victimization may be more sensitive to gender norms of behavior. Future research should ideally delineate the potential methodological differences.

Evidence was provided for the peer group norm misfit effect for both the proximal and distal injunctive norms. The social consequences of aggressive behavior (as measured by victimization) varied based on the normativeness of the behavior among friends' (proximal) norms or classmates' (distal) norms, and these effects differed by type of aggression. For physical aggression, perceiving one friends' sanctioning aggression while classmates disapprove elicit social consequences. Whereas for relational aggression, perceiving that classmates approve of such behavior but that friends' oppose it elicits social sanctioning. This difference may reflect the greater interpersonal "costs" of engaging in physical aggression wherein a more direct and easily identifiable form of aggression (physical) is penalized when proximal are less permissive. Meanwhile, a more indirect and subtle form of aggression (relational) is penalized more strongly only when friends' norms are more salient. Overall, as expected, proximal peer group norms do appear to be more powerful (noted by the size of the coefficients, see Table 1). These differences in the strength of social sanctioning effects set the stage for future investigations of differences in the nature or processes of social sanctioning as a function of the level of the peer group.

The lack of evidence for the effect of descriptive norms on the effect of physical aggression is puzzling. Again, it may be that because physical aggression presents a highly salient threat to group and individual well-being and as such physical aggression may be consistently socially regulated. The latter explanation would be consistent with previous research demonstrating greater and more impactful enforcement of social norms in cohesive, proximal peer groups (e.g., Horne, 2001), but our results do not provide substantiation of this contention. Nevertheless, our study provided unequivocal support of the peer group misfit effect for relational aggression, consistent with previous research (Bass et al., 2016; Santo et al., 2017; Velasquez et al., 2010). The association was simultaneously stronger among same-sex classrooms high in physical aggression and among same-sex classrooms low in relational aggression.

Limitations and Future Directions

The use of self-reported peer victimization presents a notable limitation. It is debatable whether self-reported peer victimization provides the most objective evidence of social sanctioning (see Cornell & Brockenbrough, 2004, for evidence of overreporting) or appropriately sensitive measure of gender-based norm differences in victimization. Further, because previous research has relied on nominations of peer victimization (Bass et al., 2016; Santo et al., 2017; Velasquez et al., 2010), it is unclear whether our results actually conflict or whether it is simply methodological incongruence.
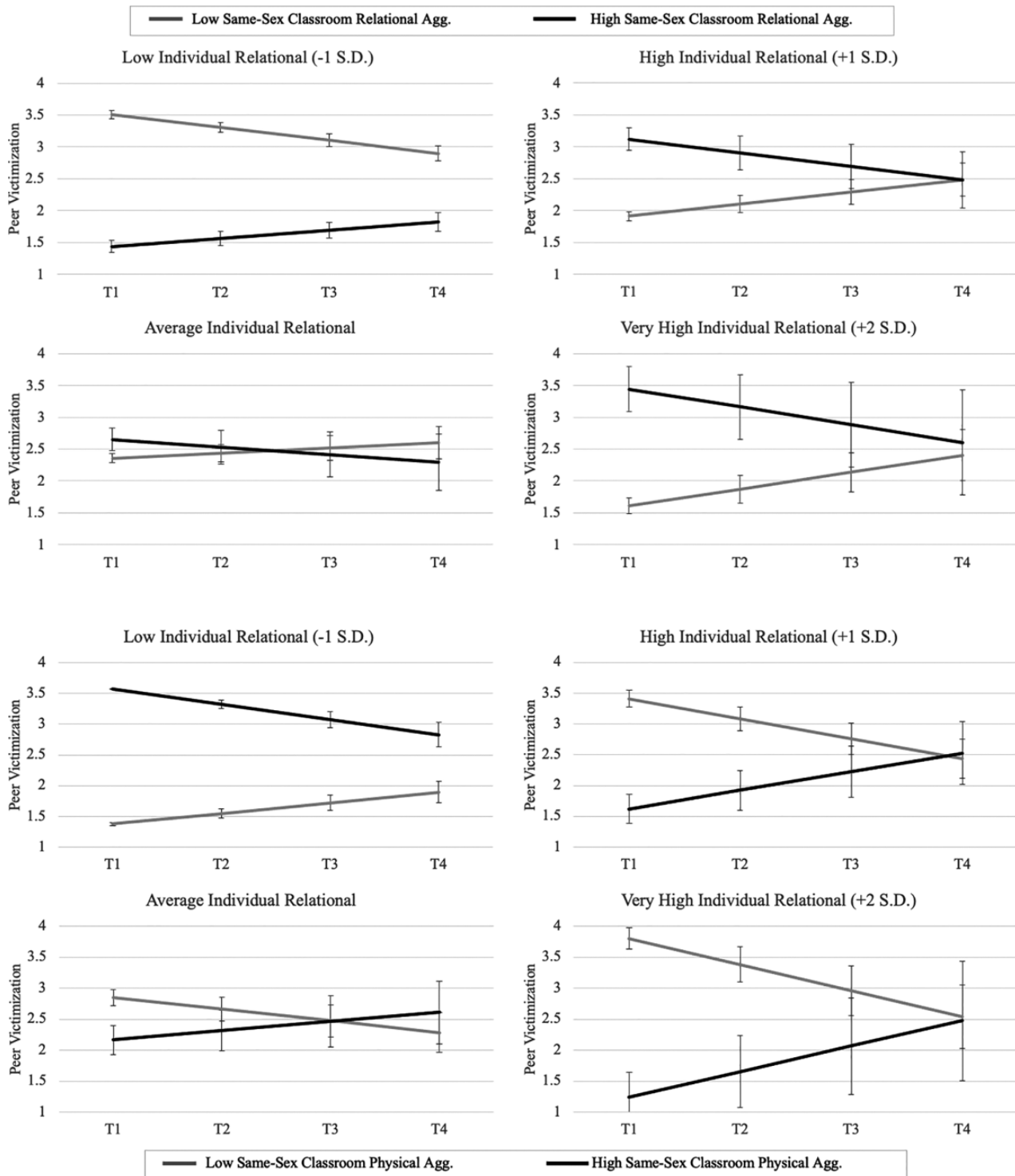
Figure 4. Final Model Estimates for Association of Relational Aggression With Peer Victimization as a Function of Relational (Top) and Physical (Bottom) Descriptive Norms of Aggression of the Same-Sex Classroom.
Note. The range of the y-axis has been shrunk to highlight the effects; the raw scores ranged from 1 to 5, $n_{(participants)} = 1,454$. Error bars reflect the 95% confidence interval.

In the future, physical and relational peer victimization need to be differentiated. Previous evidence indicates differences in social sanctioning dynamics such that physical aggression is uniquely associated with physical victimization, whereas relational aggression is uniquely associated with relational victimization (Ostrov, 2010). Further, because relational aggression harms social status, reputation, relationships, and acceptance, the primary punishments for deviance from peer group norms (e.g., Bell & Cox,

Table 1. Final Model Estimates Including the Effects of Gender, Grade, and SES, Distal and Proximal Injunctive Norms in Addition to Same-Sex Classroom Descriptive Norms of Relational and Physical Aggression.

Predictors	Intercept	Change over time	Individual physical aggression	Individual relational aggression	Time by physical interaction	Time by relational interaction
	b [95% CI]^{p}	b [95% CI]^{p}	b [95% CI]^{p}	b [95% CI]^{p}	b [95% CI]^{p}	b [95% CI]^{p}
Constant	2.401 [2.322, 2.479]$^{.000}$	−0.020 [−0.056, 0.017]$^{.291}$	0.034 [−0.049, 0.116]$^{.424}$	0.045 [−0.018, 0.108]$^{.163}$	0.018 [−0.024, 0.061]$^{.398}$	0.005 [−0.028, 0.038]$^{.762}$
Level 2 age	−0.041 [−0.109, 0.027]$^{.238}$		−0.003 [−0.075, 0.069]$^{.936}$	−0.038 [−0.103, 0.027]$^{.250}$		
Gender	0.067 [−0.081, 0.216]$^{.376}$	0.041 [−0.028, 0.110]$^{.244}$	−0.152 [−0.298, −0.007]$^{.042}$	−0.085 [−0.242, 0.072]$^{.290}$	0.055 [−0.019, 0.129]$^{.149}$	0.116 [0.047, 0.186]$^{.002}$
Grade	−0.133 [−0.214, −0.052]$^{.002}$	−0.008 [−0.037, 0.020]$^{.564}$	0.079 [−0.002, 0.159]$^{.056}$	−0.022 [−0.097, 0.053]$^{.568}$	−0.032 [−0.060, −0.004]$^{.026}$	0.024 [−0.007, 0.055]$^{.127}$
Socioeconomic status	−0.119 [−0.194, −0.043]$^{.003}$	0.034 [0.007, 0.062]$^{.016}$	0.043 [−0.038, 0.125]$^{.302}$	0.024 [−0.041, 0.088]$^{.475}$	−0.012 [−0.044, 0.020]$^{.457}$	−0.014 [−0.043, 0.015]$^{.352}$
Distal injunctive norms	0.238 [0.128, 0.348]$^{.000}$	0.041 [−0.004, 0.087]$^{.077}$	0.157 [0.052, 0.263]$^{.005}$	−0.084 [−0.188, 0.020]$^{.115}$	−0.040 [−0.102, 0.023]$^{.217}$	−0.012 [−0.061, 0.036]$^{.621}$
Proximal injunctive norms	0.126 [0.012, 0.241]$^{.032}$	0.018 [−0.033, 0.070]$^{.482}$	−0.122 [−0.229, −0.015]$^{.027}$	0.126 [0.027, 0.225]$^{.014}$	0.035 [−0.025, 0.094]$^{.254}$	−0.033 [−0.075, 0.010]$^{.132}$
Relational aggression	−0.172 [−0.395, 0.050]$^{.131}$	−0.087 [−0.186, 0.011]$^{.082}$	−0.082 [−0.291, 0.128]$^{.447}$	0.174 [−0.043, 0.391]$^{.117}$	0.060 [−0.037, 0.158]$^{.228}$	−0.119 [−0.221, −0.017]$^{.024}$
Physical aggression	0.265 [0.005, 0.525]$^{.047}$	0.115 [−0.016, 0.246]$^{.086}$	−0.199 [−0.450, 0.051]$^{.121}$	−0.136 [−0.404, 0.133]$^{.324}$	0.024 [−0.091, 0.138]$^{.686}$	0.170 [0.055, 0.285]$^{.005}$
Proportional reduction in prediction error (%)	82.88	36.59	21.20	53.89	45.48	75.16

Note. SES = socioeconomic status. Raw peer victimization scores ranged from 1 to 5. For Level 1, n = 5,816 observations, for Level 2, n = 1,454 individuals, and for Level 3, n = 126 same-sex classroom groups. Age has been standardized; all other variables have been aggregated to the same-sex classroom level.

2015; Velasquez et al., 2016), relational victimization may be a particularly effective mechanism of social regulation.

Additionally, our model did not allow for assessment of bidirectional relations between aggression and victimization. Given previous evidence that peer victimization also predicts aggressive behavior (e.g., Ostrov, 2010), future studies should take a multi-level structural modeling approach which allows for the estimation of non-recursive models.

Although our research makes a substantial addition to scientific knowledge by establishing that injunctive norms (both proximal and distal) account for the misfit effect, perhaps even more so than descriptive norms, more compelling support could be provided through the assessment of prescriptive norms as well, which are norms regarding how individuals in a group should behave (e.g., Cialdini & Trost, 1998). In contrast to descriptive and injunctive norms, they are not representations of what individuals do but rather collective opinions of what they *should* do. Future research should attempt to establish that behaviors which appear to be socially sanctioned are perceived to violate prescriptive norms, thus expanding understanding of how normative beliefs may provide "boundary conditions" for aggressive behavior (Busching & Krahe, 2015). Compelling support for the misfit effect should also be sought through investigating prescriptive norms for regulating aggressive behavior. That is, it may be considered acceptable that when peers are being aggressive, other members of the peer group keep them in check by calling them names, dealing out in-kind reciprocation of behavior, or excluding them, all of which fit the definition of peer victimization but may serve a protective social function.

Augmenting the extant literature, there is substantial support for the social regulation of both physical aggression and relational aggression within adolescent peer groups. This study provides valuable contributions to the literature by establishing the temporal nature of the effect, the utility of injunctive norms, and the relevance of social norms at multiple levels of social context. Importantly, it appears that, reflective of the complexity of the social environment with its many facets and layers, there are many nuances to the misfit effect that are just beginning to be illuminated. In adding a new level of understanding, this research helps to better elucidate how social context shapes behavior during the impressionable years of early adolescence.

ORCID iD

Jonathan Bruce Santo https://orcid.org/0000-0002-2057-1519

Supplemental Material

Supplemental material for this article is available online.

Note

1. The decision to set Level 1 predictors as fixed at Level 2 was solely based on the number of degrees of freedom available to us (with four time points, $df = 3$ including the intercept). Thus, we could only have two other variables as random at Level 2. All Level 1 effects were set to random at Level 3 (the same-sex classroom).

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