

Teachers' Perceptions of Student Defenders of Bullied Peers: Associations with Defenders' Race and Gender, and the Classroom Racial Composition

by

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Abstract

This thesis examined whether children's defending of bullied peers predicts changes in teachers' reports of students' prosocial and aggressive behavior and whether those associations are moderated by children's gender and race and the racial make-up of the classroom. Data were collected from 4th and 5th-graders ($N = 1,404$, 19.0% Black girls, 20.9% Black boys, 30.0% White girls, 31.1% White boys) at three intervals during the school year. Stable differences in teachers' perceptions were found as a function of children's gender, race, and defending. Defending predicted increases in teacher-ratings of prosocial behavior and decreases in teachers-ratings of aggression only for White children, although findings depended on the racial makeup of the classroom. Changes in teachers' perceptions of Black children were predicted by the racial makeup of the classroom. These findings suggest that defending is associated with being perceived positively by the teacher, but those perceptions remain subject to enduring biases.

Table of Contents

Abstract	2
List of Tables	5
List of Figures	6
List of Abbreviations	7
Chapter 1: Literature Review	8
Teacher Perceptions: An Important, but Often Biased, Influence in the Classroom	9
Defending Peer-Victimized Classmates and Teachers' Perceptions of Students	13
Group Representation and Teacher Perceptions	15
The Current Study	17
Chapter 2: Methods	20
Participants	20
Measures	20
Procedures	22
Chapter 3: Data Analytic Plan	23
Chapter 4: Results	25
Preliminary Analyses	25
Unconditional Growth Curve Models	28
Conditional Growth Curve Model for Teacher-reported Prosocial Behavior	29
Conditional Growth Curve Model for Teacher-reported Aggressive Behavior	32
Chapter 5: Discussion	35
Enduring Effects of Defending, Gender, and Race	36

Effects of Defending, Gender, and Race on Changes in Teachers' Perceptions of Students	40
Strengths, Weakness, and Future Directions	42
Implications for School Personnel	44
Conclusion	45
References	48
Appendices	73
Appendix A: Peer-Reported Participant Role Questionnaire-Revised	73
Appendix B: Children's Social Behavior Questionnaire	74

List of Tables

Table 1 (Descriptive Statistics)	61
Table 2 (Black Girl Bivariate Correlations)	62
Table 3 (Black Boy Bivariate Correlations)	63
Table 4 (White Girl Bivariate Correlations)	64
Table 5 (White Boy Bivariate Correlations)	65
Table 6 (Estimated Intercepts and Slopes by Racial/Gender Group)	66

List of Figures

Figure 1 (Predicting the Trajectory of Teacher-Reported Prosocial Behavior)	67
Figure 2 (Predicting the Trajectory of Teacher-Reported Aggressive Behavior)	68
Figure 3 (Predicting the Trajectory of Teacher-Reported Prosocial Behavior)	69
Figure 4 (Predicting the Trajectory of Teacher-Reported Aggressive Behavior)	70
Figure 5 (Estimated Prosocial Trajectories)	71
Figure 6 (Estimated Aggression Trajectories)	72

List of Abbreviations

DRT Deviance Regulation Theory

ICT Intergroup Contact Theory

PSR Percent the Same Race

SIT Social Identity Theory

Teachers' Perceptions of Student Defenders of Bullied Peers: Associations with Defenders' Race and Gender, and the Classroom Racial Composition

The quality of teachers' interactions with their students is critical to their students' academic achievement and emotional well-being, and the nature of teacher-student interactions is driven, in part, by teachers' perceptions of their students (Alvidrez & Weinstein, 1999; Veenstra et al., 2008). Consequently, teachers' expectations and perceptions of their students can positively or negatively impact their students' performance and achievement (Rubie-Davies et al., 2006; Veenstra et al., 2008). It is of concern, then, that teachers' perceptions of their students are often biased by child characteristics unrelated to their school performance, such as their ethnicity and race (e.g., Irizarry & Cohen, 2019; Saft & Pianta, 2001; Tenenbaum & Ruck, 2007), gender (e.g., Al-Thani & Semmar, 2017; Auwarter & Aruguete, 2008; Muntoni & Retelsdorf, 2018; Saft & Pianta, 2001), and socioeconomic status (SES; Auwarter & Aruguete, 2008; Dusek & Joseph, 1983). However, teachers' expectations and evaluations of student success, and the level of support they give students, are also associated with teachers' perceptions of their students' behavior. Teachers often have very different expectations and reactions to a student who is highly aggressive, disobedient, and inattentive than one who is helpful, cooperative, and kind (e.g., Bennet et al., 1993; Gest et al., 2005; Timmermans et al., 2016; Veenstra et al., 2008).

However, not all student behaviors can be clearly interpreted as being positive or negative. Because of this ambiguity, a teacher may perceive a student's actions differently than how those behaviors were intended or even differently than how the students' classmates perceive the behaviors. Defending a peer who is being bullied is one such behavior. Defending is intended to be prosocial (e.g., Lambe & Craig, 2020; Meter, 2016; Salmivalli, 2010). However, there is potential for the act of defending to be seen as aggressive (e.g., a student telling an adult

or actively intervening to stop the bullying of a peer). Thus, defending may be interpreted as either agonistic or prosocial by a teacher and can potentially influence the teacher's perceptions of students who defend bullied peers. There is a notable gap in the literature, therefore, on how students' defending behaviors relate to their teacher's perceptions of them. The primary goal of this study was to see if defending peers is predictive of teachers' evaluations of a student as increasingly aggressive or prosocial over time. With the evidence showing that teachers' perceptions and expectations can be altered by their students' demographic characteristics, the secondary goal of this study was to see if the association between children's defending behavior and their teacher's perceptions of them as aggressive or prosocial is moderated by students' gender or race, and whether the moderating role of race depends on the extent to which students have same race classmates. Furthermore, it is important to know to what extent teachers are willing to modify their perceptions of students based on their positive behavior rather than retaining fixed perceptions, particularly if those perceptions are affected by gender or racial biases. Thus, analyses were performed to allow for predictions in changes in teachers' perceptions across the school year.

Teacher Perceptions: An Important, but Often Biased, Influence in the Classroom

Teachers' perceptions of their students inform their expectations for the students' growth and accomplishments, which, in turn, influence their behaviors and evaluations of those students (Dusek & Joseph, 1983; Timmermans et al., 2016). For example, evidence suggests that teachers engage in more positive interactions with high achieving students than low achieving ones, including more frequent praise and support, and this differential behavior can be accounted for by differences in anticipated academic successes (Brophy & Good, 1970). Such disparities in treatment may have significant consequences, as students whose teachers hold low

expectations for their academic success score lower on end-of-year tests than students whose teachers expect high academic achievement (Timmermans et al., 2016). Although teachers' assessments of their students' strengths and weaknesses can help them plan for, and better understand, the needs of their students, if left unchecked, the teacher may hold unjust expectations and fail to adapt as their students grow and develop new skills and competencies.

A variety of factors contribute to teachers' perceptions and expectations of their students. Students' demographics and physical characteristics are amongst the most researched factors. For example, teachers perceive low SES students as having less promising futures than high SES students (Auwarter & Aruguete, 2008), and teachers' perceptions of their students' physical attractiveness positively correlate with their expectations for students' academic achievement (Dusek & Joseph, 1983). Students' race has been an area of particular focus. Research has shown that teachers hold positive expectations, offer more frequent encouraging speech, and give higher academic performance ratings to White students than to students of color (e.g., Irizarry & Cohen, 2019; McGrady & Reynolds, 2013; Oates, 2003; Tenenbaum & Ruck, 2007). White teachers who have Black or African American students are less likely to view their teacher-student relationship as positive (Saft & Pianta, 2001), hold lower academic expectations (Beady & Hansell, 1981), give lower academic performance ratings (Beady & Hansell, 1981; Redding, 2019), and rate students as less engaged academically (e.g., fewer hours spent on schoolwork, or less consistency of completing homework, attending class, or paying attention; Oates, 2003). However, when students are paired with a teacher of the same race, they are less likely to be seen as disruptive or argumentative, and their academic ability is seen more favorably (Redding, 2019).

Gender is another salient student characteristic that can bias teachers' perceptions and expectations. Teachers attribute girls' success in mathematics to effort and their poor performance to lack of talent. In contrast, they attribute boys' success to talent and failure to lack of effort (Kollmayer et al., 2018). Teachers also hold girls to higher expectations than boys for reading achievement, and those expectations positively correlate with higher achievement outcomes (Muntoni & Retelsdorf, 2018). Research has even been conducted on school textbooks, finding that men are often represented as individualistic and competitive. Women are more frequently presented in household and family contexts (Kollmayer et al., 2018). Thus, gender stereotypes may influence teachers' expectations and interpretations of students' behavior and academic performance. Such gendered expectations can lead to differential treatment. In a study of 10th-grade students, Becker (1981) found that math teachers asked more questions and initiated more individual academic and nonacademic contact (e.g., conversing before or after class, or making jokes) with boys than girls. Similarly, Rinks (2006, as cited in Constantinou, 2008) found that teachers provide boys more attention and corrective feedback to help improve their skills in physical education activities than girls.

This research also draws upon literature on intersectionality (Cho et al., 2013; Overstreet et al., 2020) to provide a framework for understanding the interdependent dynamics within a classroom that give or take away power. It is important to recognize that children within a class share unique and overlapping identities that contribute to sustaining various power differentials within the classroom and larger school structures. Furthermore, how students' identities are used within the power structure to privilege or disadvantage them may be dynamic and context dependent. For example, being a Black or African American girl in a classroom could mean receiving less social power due to race but advantages due to gender, and whether various facets

of an individual's identity is used to that person's advantage or disadvantage may depend on features of the context and the processes being studied. Thus, intersectionality is a growing area of research on teacher perspectives, highlighting that students are often affected by power imbalances within a classroom. An example of intersecting power dynamics is the combination of SES and gender. Teachers' perceptions of personal characteristics, such as competency in class, are more favorable for high-SES boys than low-SES boys, with the opposite occurring for girls (Auwarter & Aruguete, 2008). Another example in the classroom is teacher perceptions as a function of students' gender and ethnicity. When comparing students who were below-average academically (i.e., academic success based on mathematical achievement and language proficiency scores), ethnic minority girls (i.e., girls who were Turkish in a German school) were evaluated as having less academic achievement than ethnic majority girls. When comparing students who were above-average academically, ethnic minority girls were evaluated as having higher academic achievement than ethnic majority girls (Kleen & Glock, 2017). Thus, by looking at teachers' perceptions through an intersectional lens, we develop a deeper understanding of how power is reified within classrooms and schools.

However, it is not only the students' characteristics that influence teachers' perspectives and expectations but also the nature of students' behavior. Researchers have shown that teachers evaluate their students' academic performance more positively when they view them as prosocial (Veenstra et al., 2008), and report poorer academic success for students who are disruptive (Bennet et al. 1993). Students also report lower rates of teacher support when their teacher views them as highly aggressive (Gest et al., 2005). However, the impact of behavior on teachers' perceptions has not been as well-studied as students' demographic characteristics, and

research on this topic has been primarily limited to broad categories of prosocial or externalizing behaviors.

Thus, further research is needed on teachers' perceptions and expectations of students' interpersonal behaviors with others, including the influence of ambiguous behaviors (i.e., those that are not clearly adaptive or maladaptive). Studying the impact of these student behaviors on teachers' perceptions will allow for greater potential to support student experiences (e.g., helping the teachers recognize what influences their expectations or providing information to create a curriculum for teaching classroom behavior expectations). One ambiguous behavior that is typically categorized as prosocial but has the potential to be viewed as antisocial, particularly for boys and children of color, is defending behavior.

Defending Peer-Victimized Classmates and Teachers' Perceptions of Students

Defending a victim of bullying is intended to be a positive, prosocial behavior that provides a peer needed instrumental or emotional aid. Defending behaviors include comforting the victim after the bullying event, encouraging the victim to tell a teacher, informing the teacher of the bullying, or actively trying to stop the aggression (e.g., Huitsing & Monks, 2018; Kollerová et al., 2018; Lambe, & Craig, 2020; Pöyhönen et al., 2010; Salmivalli, 2010). Charach et al. (1995, as cited by Hawkins et al., 2001) reported in a Canadian study of elementary aged children that 43% of students would “try to help” a peer being bullied, while another 33% would feel as though they should help but would not. In general, roughly 20% of students are peer-reported as defenders (Meter & Card, 2015; Salmivalli & Voeten, 2004), while Sainio et al. (2011) found that 72% of victims expressed having one or more peer defenders.

Defending has benefits for the victims of bullying and for those who act as defenders. For the victim, being defended allows for feeling supported by a peer, which can help relieve some

of the pain associated with victimization, including feelings of depression, anxiety, and low self-esteem (Sainio et al., 2011; Salmivalli, 2010). For the defender of bullying, there is a reduced likelihood of being bullied in the future (Pöyhönen et al., 2010), and students who often defend their peers are more accepted by peers and more popular than those who do not defend (Pöyhönen et al., 2010; Sainio et al., 2011), although whether defending contributes to greater peer adjustment remains unknown. Lastly, classrooms with higher defending rates have lower rates of bullying (Salmivalli, 2010).

Thus, defending behaviors are intended to be actions that provide support for the victim, and ultimately, are expected to be received and perceived as prosocial behaviors. However, bullying is an aggressive behavior directed towards another, and defending is an intervention in response to that behavior. Consequentially, depending on how a child chooses to defend a peer, the defending behavior could possibly be perceived as aggressive (e.g., if a defender physically steps forward to stop a bully from continuing). Hawkings et al. (2001) conducted an observational research study of elementary-aged children and their bullying interventions. They found that defending actions directed towards the victim often involved providing comfort, telling the teacher, or encouraging the victim to tell an adult. When the defending actions were directed towards the bully, the students' actions were more assertive and aggressive, such as telling the bully to stop or actively trying to stop the bully. Interestingly, boys were slightly more likely than girls to be eclectic in their defending intervention strategies, using verbal and physical interventions, both aggressive and non-aggressive. Girls relied primarily on verbal defending behaviors, both aggressive and non-aggressive.

When observing defending behaviors, students may be aware of the contextual factors that allow for a prosocial interpretation of defending. Teachers, however, may be less aware of

the circumstances around the defending and see the action more ambiguously. This is consistent with previous research showing that students' behaviors can be perceived differently by peers and teachers (Hudley, 1993; Lancelotta & Vaughn, 1989). Consequently, biases teachers hold based on students' gender or race may impact how they interpret students' behavior. In particular, teachers often rate Black or African American boys as more aggressive and problematic than they rate White students (Graham & Juvonen, 2002; Hudley, 1993; Zimmerman et al., 1995). This was underscored in a study showing that preservice teachers often mislabeled facial expressions as angry for Black boys and rated Black boys' behaviors as more hostile than White boys (Halberstadt et al., 2018).

Such biases, therefore, may have implications for how teachers perceive students' defending behaviors. These biases may influence or create impressions that students are aggressive and anti-social based on their defending behavior. For example, if a Black male student frequently physically defends a peer from a bully, teachers may mischaracterize the boy as a generally aggressive child. Consequently, the research would suggest that teachers are more likely to view boys and Black or African American students as more aggressive than other students when behaving in potentially ambiguous manners, such as defending.

Group Representation and Teacher Perceptions

One of the reasons Black or African American students might experience more negative perceptions is that teachers may hold more positive perceptions of students who share their gender or racial identity. The National Center for Education Statistics (2021) indicated that in US public schools during the 2017-2018 school year, 79% of teachers were White, and 76% of teachers were women. Social Identity theory suggests that individuals will identify with others similar to themselves to create a sense of belonging and to maintain a positive in-group

perspective (SIT; Brenick & Halgunseth, 2017; Hogg & Ridgeway 2003; Hymel et al., 2015). In-group belonging leads individuals to strive to protect the viewpoint that their group has a higher status than outgroups and to view their group as “better” and the outgroup as “less-than” (Brown, 2000; Reynolds et al., 2000). SIT has been instrumental in understanding in-group favoritism and preferential treatment, blame placed on outgroup members, (Reynolds et al., 2000; Gini, 2007), biased labeling, preconceived notions, and behavioral changes in intergroup contexts (Brown, 2000). Group identification, dynamics, and behavior are all a part of the bullying process (Gini, 2007; Salmivalli & Voeten, 2004). Gini (2007) researched bullying with middle school students in the context of groups. Students were assigned surveys at random in which they were identified as either part of the in-group or outgroup and a group role of either bullies or victims. When a part of the in-group, regardless of being assigned a victim or bully role, children would label the outgroup as being blame-worthy and the in-group as preferable. Such perceptions of bullying dynamics may extend to teachers’ perceptions of the students involved in the bullying. Based on SIT, it could be expected that teachers, who are predominantly White and women, may hold outgroup biases directed toward students who engage in defending behaviors when the students are Black, boys, or both.

However, greater experience with diverse students may minimize such biases. Based on location, the demographic makeup of classrooms will differ. The group representation in a classroom may impact the teachers’ biases, specifically when interpreting defending behaviors. Intergroup Contact Theory suggests that greater exposure to out-group members can help to reduce prejudice across groups and contexts (ICT; Hughes et al., 2017; Pettigrew & Tropp, 2006). Pettigrew and Tropp (2006) found that in a meta-analysis of 696 research samples, 94% of samples showed that higher intergroup contact leads to lower prejudice. For example, a study

of Florida middle and high school districts found that greater intergroup contact between diverse school district board members lead to reduced punishment severity for all students in the school districts (Hughes et al., 2017). Thus, the more groups interact, the more preferential treatment towards the ingroup dissipates.

The effects of defending behaviors on teachers' perceptions of students have not been studied within the classroom context. However, based on ICT, it is plausible that the extent to which race is represented in the classroom moderates the impact of students' race on teachers' perceptions of students who defend bullied peers. Specifically, students in classrooms with higher representation of same-race peers may be seen by teachers as more prosocial and less aggressive. Conversely, teachers in classrooms with lower intergroup contact may still hold strict group biases. Thus, while SIT would lead to the prediction that children's defending would be less predictive of their teachers' positive behavioral assessments for Black children than for white children, ICT would suggest that this difference would be smaller in classrooms with a higher percentage of Black students.

The Current Study

Given the importance of teachers' perceptions and expectations of students, which often guide teachers' interactions with their students, as well as efforts to increase children's defending behaviors (Kärnä et al., 2011; van der Ploeg et al., 2017), it is essential to understand if teachers perceive students who defend as prosocial or potentially aggressive. This study uses longitudinal data collected from 4th- and 5th- grade students at three intervals during an academic school year to examine whether peer-reported defending behaviors are predictive of changes in teachers' reports of students prosocial and aggressive behavior. Moreover, with evidence showing that demographic characteristics can bias teachers' perceptions, this study examines if the association

between defending, and trajectories of teachers' reports are affected by students' gender, race, and the intersection between gender and race. The study also assesses whether the moderating role of race depends on racial representation in the classroom. This study tests the following hypotheses:

Hypothesis 1) Peer reports of defending behaviors will predict trajectories of teachers' reports of prosocial behavior and aggression.

Hypothesis 1a) Higher defending will predict trajectories of increasing teacher-reported prosocial behavior over a school year.

Hypothesis 1b) Higher defending will predict trajectories of decreasing teacher-reported aggressive behavior over a school year.

Hypothesis 2) Gender will moderate the association between peer reports of defending behavior and trajectories of teachers' reports of prosocial behavior and aggression.

Hypothesis 2a) The positive association between peer-reported defending and trajectories of increasing teacher-reported prosocial behavior will be stronger for girls than boys.

Hypothesis 2b) The negative association between peer-reported defending and trajectories of decreasing teacher-reported aggressive behavior will be stronger for girls than boys.

Hypothesis 3) Race will moderate the association between peer reports of defending behavior and trajectories of teachers' reports of prosocial behavior and aggression.

Hypothesis 3a) The positive association between peer-reported defending and trajectories of increasing teacher-reported prosocial behavior will be stronger for White children than Black or African American children.

Hypothesis 3b) The negative association between peer-reported defending and trajectories of decreasing teacher-reported aggressive behavior will be stronger for White children than Black or African American children.

Hypothesis 4) Gender and race will jointly moderate the association between peer-reports of defending behavior and trajectories of teachers' reports of prosocial behavior and aggression.

Hypothesis 4a) The positive association between peer-reported defending and trajectories of increasing teacher-reported prosocial behavior will be strongest for White girls compared to all other students in the classroom.

Hypothesis 4b) The positive association between peer-reported defending and trajectories of increasing teacher-reported prosocial behavior will be weakest for Black or African American boys compared to all other students in the classroom.

Hypothesis 4c) The negative association between peer-reported defending and trajectories of decreasing teacher-reported prosocial behavior will be strongest for White girls compared to all other students in the classroom.

Hypothesis 4d) The negative association between peer-reported defending and trajectories of decreasing teacher-reported prosocial behavior will be weakest for Black or African American boys compared to all other students in the classroom.

Hypothesis 5) The percentage of same-race students in the classroom will moderate the effect of defending on trajectories of teacher-reported prosocial behavior and aggression for Black children, but not for White children.

Hypothesis 5a) For Black children, but not White children, the positive association between peer-reported defending and trajectories of increasing teacher-reported prosocial

behavior will be stronger if there is a higher percentage of the same-race students in the classroom compared to lower percentage of the same-race students in the classroom.

Hypothesis 5b) For Black children, but not White children, the negative association between peer-reported defending and trajectories of decreasing teacher-reported aggressive behavior will be stronger if there is a higher percentage of students of the same-race in a classroom compared to a lower percentage of students the same race in a classroom.

Methods

Participants

Data for this study came from the Friendship Hero project, a study conducted in 13 public schools located in rural communities in the Southeastern United States. Participants were 1,404 children in 4th or 5th grade, ($M_{\text{age}} = 10.05$ years; $SD = .67$; 724 = boys). Data were collected in three waves during the school year, beginning in fall (Wave 1 = fall; Wave 2 = winter; Wave 3 = spring). In the fall, all children in the schools' 91 classrooms were invited to participate, with 1,564 children (76.1%; $SD_{\text{across classrooms}} = .13$) receiving written parental consent to participate in the study. One teacher did not complete the questionnaires provided, resulting in 20 children being excluded from this study. Children's gender and race were obtained from school records. Children whose race(s) was underrepresented (i.e., were not Black or White) were not included ($n = 140$). The final sample included 1,404 children (40% Black; 60% White) from 90 classrooms. The percentage of children in each of the 90 participating classrooms who were Black ranged from 5.3% to 95% ($M = 35.6\%$), and the percentage of children who were White ranged from 0 to 92.9% ($M = 55.4\%$). Using a > 60% cutoff, 53 (58.9%) classrooms were predominantly White, 15 (16.7%) were predominantly Black, and 22 (24.4%) were diverse

(Black:White ratios ranged from 60:40 to 20:60). The teachers were predominantly White (White = 78.9%, Black 17.8%, Latina/o = 3.3%).

Measures

Percent the Same Race (PSR) Classmates. For each child, a score was computed representing the number of same-race children in the classroom. For each racial group, the number of children of that race in the classroom was computed and divided by the number of children in the classroom minus one. Children were assigned the percentage race score for their race.

Defending. Children completed three items from the peer-reported Participant Role Questionnaire (Salmivalli et al., 1996). For each item, children rated their participating classmates on a 4-point scale (1 = *Never*; 4 = *A lot*) as to how often each peer engages in the described behavior (e.g., “comforts the victim or encourages her/him to tell the teacher about the bullying”; “tells the others to stop bullying”; “tries to make the others stop bullying”). The average rating received was computed separately for each item, and participating students received an overall defending score based on the average score across the three items ($\alpha = .90, .91, .91,$ and $.91$ for Black girls, Black boys, White girls, and White boys, respectively).

Teacher-Reported Student Prosocial Behavior. Teachers completed the Children’s Social Behavior Questionnaire (Crick, 1996), with four items assessing the prosocial behaviors of the participating students. For each item, teachers rated their participating students on a 5-point scale (1 = *Never*; 5 = *Almost Always*) as to the prosocial behavior of the student with their classmates (e.g., “says supportive things to peers”; “is helpful to peers”). The four prosocial item scores were averaged to give each participating student a prosocial behavior score (α ranged

from .88 - .93 for all groups and waves, i.e., Black girls, Black boys, White girls, and White boys, and fall, winter, and spring).

Teacher-Reported Student Aggression. Teachers completed the Children's Social Behavior Questionnaire (Crick, 1996), which consists of 11 questions assessing relational and overt aggression. Teachers rated their participating students on a 5-point scale (1 = *Never*; 5 = *Almost Always*) as to the aggressive behavior of the student (e.g., "This child tries to get other to dislike certain peers by telling lies about the peers to others"; "uses physical force to dominate other kids"). All aggression item scores were averaged to give each participating student an overall aggression score, (α ranged from .95 - .97 for all groups and waves; i.e., Black girls, Black boys, White girls, and White boys, and fall, winter, and spring).

Procedures

Data were collected during two consecutive school years. The first cohort of five schools participated during the 2017-2018 school year. The second cohort of eight schools participated during the 2018-2019 school year. All schools included 4th- and 5th-grade classrooms, except for one school for which the oldest students were in the 4th-grade, for a total of 91 participating classrooms. Schools participated in a theory-based anti-bullying program that sought to increase defending behaviors when witnessing bullying and decrease behaviors that reinforce bullying. Before initiating consent procedures or data collection, each school was randomly assigned to either the intervention or control condition (54 intervention classrooms; 37 control classrooms).

Data were collected at three points during the school year: in the fall (approximately September or early October) prior to the intervention activity (early-to-late October), after the intervention in the winter (January or February), and in late spring (April or May). The questionnaires included self-reports, peer-reports, and teacher-reports and assessed a range of

socioemotional and academic variables. The current study uses all three data collection points from which the target measures were collected. The intervention was delivered once, intending to increase defending behaviors when witnessing bullying. The intervention was either a trial intervention based on Deviance Regulation Theory (DRT; Blanton & Burkley, 2008), focused on increasing positive perceptions of defenders, or a control intervention aimed at increasing empathy for victims. Both interventions were 45 minutes and included a classroom discussion and a poster project.

Children and teachers completed the group-administered surveys at the three points during the school year. Each survey was administered by trained undergraduate or graduate research assistants in the classroom. The administrator read each question aloud, and two or more assistants helped the students as needed. The questionnaires took approximately 50-55 minutes to complete. The Auburn University Institutional Review Board approved the procedures.

Plan of Analysis

Preliminary Analyses

Measures of central tendency were used to assess the distributional properties of the data. Bivariate correlations were estimated to determine the strength of association between variables. Chi-square tests were used to evaluate whether those with missing data differed from those with complete data on gender or race. Independent samples *t*-tests were used to determine if differences exist between those with missing data and those without missing data on peer-reported defending behavior, teacher-reported prosocial behavior, and teacher-reported aggressive behavior. I tested for intervention differences in all study variables and include

intervention as a covariate in subsequent analyses due to correlations with other predictors (i.e., defending, gender, race, PSR).

Primary Analysis

Linear growth curve modeling was used to test hypotheses using Mplus version 8.2 (Muthén & Muthén, 1998–2017) statistical software with robust full information maximum likelihood (Enders & Bandalos, 2001), which allowed all participants with missing data to be included in all analyses. In addition, robust maximum likelihood estimation was used to account for any skewness in the variables (Chou et al., 1991). Separate models were tested for teacher-reported prosocial behavior and teacher-reported aggressive behavior. All models were conducted using multigroup analysis in which parameters are estimated separately for Black girls, Black boys, White girls, and White boys. The cluster function was used to account for nesting within classrooms. First, I estimated unconditional latent growth curves for prosocial and aggressive behavior separately. To characterize linear change, paths from the observed variables were set from the latent slope at 0, 1, and 2, for the fall, winter, and spring, respectively. Thus, the latent intercept represents the teacher-reports in the fall, and the latent slope measured linear change in the teacher-reports over the year. I used chi-square difference tests to see if there were group differences (race by gender, i.e., Black girls, Black boys, White girls, and White boys) in the latent intercept and slope, using the Satorra-Bentler corrected Chi-square difference test (Satorra & Bentler, 2010).

Second, I added the following predictors to the two latent growth curve models: intervention, defending, percent the same race (PSR), and an interaction of defending by PSR (see Figures 1 and 2). Prior to creating and including the interaction term, defending and PSR were centered. I then used chi-square difference tests to determine if there were any group (race

by gender) differences in any of the predictive associations. For each group, all pathways were set equal and model fit was compared to a model in which all pathways are freely estimated across the groups, using the Satorra-Bentler corrected Chi-square difference test (Satorra & Bentler, 2010). If the chi-square difference test was significant, each pathway was tested separately to identify which groups differ from each other on the respective parameter. When there were no significant group differences for any of the parameters, I re-restricted them to be equivalent across groups. When significant group differences arose for any of the parameters, they were freely estimated across those groups for which they were significantly different, and all other parameters retained their equality constraints to maximize model fit. For all significant predictive associations, trajectories were estimated and plotted at high and low levels (± 1 standard deviation of the mean) of the predictors.

Results

Preliminary Analyses

Descriptive statistics are presented in Table 1. Positive skew was indicated for fall peer-reported defending and for teacher-reported aggression scores at each wave. Negative skew was indicated for percent the same race and for prosocial behavior at each wave. A series of 2 (gender: boy versus girl) \times 2 (race: Black versus White) ANOVAs was conducted to determine whether any study variables differed as a function of children's gender, race, or the intersection of the gender and race. For percent the same race, there was a significant main effect for race, $F(1, 1395) = 195.97, p < .001$, due to White students having, on average, a higher percentage of same-race classmates than Black students. For fall defending, there were significant main effects for gender, $F(1, 1380) = 98.92, p < .001$, and race, $F(1, 1380) = 101.91, p < .001$, and the interaction between gender and race was significant, $F(1, 1380) = 4.84, p = .03$. On average,

boys received lower ratings than girls on peer-reported defending, and Black children received lower ratings than White children. The interaction between gender and race could be accounted for by the greatest discrepancy in scores occurring between Black boys and White girls. For teacher-reported prosocial scores, at all waves, there were significant main effects for gender (all $ps < .001$) and race (all $ps < .03$). In addition, for spring teacher-reported prosocial scores, there was a significant gender \times race interaction, $F(1, 1303) = 5.24, p = .02$. Consistent with previous research on teachers' biases (Graham & Juvonen, 2002; Hudley, 1993; Zimmerman et al., 1995), in the fall and winter, teachers rated boys as less prosocial than girls and Black children as less prosocial than White children. However, in the spring, there were no differences between Black boys, Black girls, and White boys, $F(1, 923) = 3.11, p = .20$. Instead, teachers rated White girls as more prosocial than the other three groups of children (all $ps < .001$). For teacher-reported aggression, a significant main effect for gender was found at winter and spring (all $ps < .008$), and a significant main effect of race was found at all three waves (all $ps < .001$). As with the biases found for prosocial behavior, teachers rated girls as less aggressive than boys in the winter and spring, and Black children as more aggressive than White children at all three waves.

Bivariate correlations are presented in Tables 2-5 for each group. Across all groups, percent the same race (PSR) had a significant effect only with fall defending. However, for Black girls and boys, this correlation was small and negative (both $rs < -.23$), and for White girls and boys, this correlation was small and positive (both $rs < .15$), suggesting that White children more frequently rate their classmates as defenders compared to Black children. For White girls and boys, there was a small and negative association between PSR and spring teacher-reported prosocial behavior ($rs < -.15$). There were small-to-medium positive correlations (all rs range from .14 to .37) between fall defending and each wave of teacher-reported prosocial behavior for

all groups. Fall defending had small-to-medium negative correlations (r_s ranging from $-.16$ to $-.41$) with each wave of teacher-reported aggressive behavior. The stability coefficients for teacher-reported were moderate-to-large (r_s ranging from $.55$ to $.70$) for prosocial behavior and (r_s ranging from $.69$ to $.81$) for aggression. The correlations between teacher-reported prosocial and aggressive behavior were negative and moderate at each wave (r_s ranging from $-.23$ to $-.46$).

Of the 1,404 participants, a small percentage ($n = 171$, 12%) had missing data on one or more of the study variables. Chi-square tests indicated that participants with missing data did not differ significantly from participants with complete data by gender. However, participants with missing data did differ significantly by race, $\chi^2(1) = 5.98$, $p = .02$, and there was a significant gender \times race interaction, $\chi^2(3) = 7.96$, $p = .047$, due to a significant difference between Black boys (19.6%) and White boys (12.7%), $\chi^2(1) = 4.02$, $p = .045$, but not between Black girls (15.02%) and White girls (10.6%), $\chi^2(1) = 2.01$, $p = .16$. Independent samples t -tests indicated that participants with missing data did not differ significantly from participants with complete data reports on PSR classmates, $t(1482) = 0.06$, $p = .95$, or fall defending, $t(1482) = 0.06$, $p = .95$. They significantly differed only on teacher-reported prosocial and aggression behaviors in the fall. Specifically, participants with complete data received higher reports of fall prosocial behavior ($M = 3.24$, $SD = 1.01$) than those with missing data ($M = 2.97$, $SD = .93$), $t(144.76) = 2.99$, $p = .02$, and participants with missing data received higher reports of fall aggressive behavior ($M = 1.72$, $SD = .89$) than those with complete data ($M = 1.61$, $SD = .80$), $t(134.29) = -1.27$, $p = .01$.

Of the participants included in this study, 781 (55.6%) were in the DRT intervention and 623 (44.4%) were in the empathy intervention. Chi-square tests indicated that participants in the DRT intervention did not differ significantly from those in the empathy intervention on gender. However, there was an association between intervention type and race, $\chi^2(1) = 7.48$, $p = .006$,

and there was a significant gender \times race interaction, $\chi^2(3) = 8.15, p = .043$, due to a significant main effect between Black boys (59.04% in the DRT intervention) and White boys (51.6% in the DRT intervention), $\chi^2(1) = 3.91, p = .048$, and no significant difference between Black girls (61.2% in the DRT intervention) and White girls (53.8% in the DRT intervention), $\chi^2(1) = 3.59, p = .06$. Independent samples *t*-tests indicated that participants in the DRT intervention had lower PSR classmates ($M = .53, SD = .20$) than those in the empathy intervention ($M = .58, SD = .23$), $t(1228.67) = 3.98, p < .001$. No significant difference was found for fall defending, $t(1228.67) = 3.98, p < .001$, and the intervention groups significantly differed only on teacher-reported prosocial behavior in the winter and spring, and teacher-reported aggressive behavior in the winter. Participants in the DRT intervention received lower reports of prosocial behavior in the winter ($M = 3.33, SD = 1.09$) than those in the empathy intervention ($M = 3.38, SD = .92$), $t(1299.94) = .91, p < .001$. However, participants in the DRT intervention received higher reports of prosocial behavior in the spring ($M = 3.43, SD = 1.03$) than those in the empathy intervention ($M = 3.38, SD = .95$), $t(1287.09) = .91, p = .03$. Lastly, those in the DRT intervention received lower reports of aggressive behavior in the winter ($M = 1.60, SD = .79$) than those in the empathy intervention ($M = 1.73, SD = .87$), $t(1206.58) = 2.83, p = .009$. Given these intervention differences, intervention was included as a covariate in all subsequent analyses.

Unconditional Growth Curve Models

Unconditional growth curve models were first estimated for teacher-reported prosocial behavior. Chi-square difference tests were conducted to identify any group (i.e., Black girls, Black boys, White girls, White boys) differences in the means and variances of the intercept and slope of prosocial behavior. A model in which all means and variances were freely estimated fit

the data significantly better than one in which all parameters were constrained to be equal, $\Delta\chi^2(12) = 95.52, p < .001$. Follow-up analyses indicated that the mean intercept differed across all four groups (all $ps < .001$). The mean slope did not differ across the four groups, $\Delta\chi^2(3) = 4.91, p = .18$, nor did the variance in the intercept, $\Delta\chi^2(3) = 3.69, p = .30$, or slope, $\Delta\chi^2(3) = 3.19, p = .36$. A final model constraining all of the parameters to be equivalent across groups except the mean intercept was estimated, yielding good model fit, $\chi^2(13) = 24.83, p = .02$, comparative fit index (CFI) = .99, root mean square error of approximation (RMSEA) = .051, standardized root mean square residual (SRMR) = .068. The mean intercept for each group paralleled the gender and racial biases reported above: Black girls $M = 3.23$, Black boys $M = 2.99$, White girls $M = 3.52$, and White boys $M = 3.07$. The mean slope for each group was positive and significantly different from 0 ($M = .10; p < .001$). There was significant variance in the latent intercept ($M = .79; p < .001$) and slope ($M = .11; p < .001$) for all children.

Unconditional growth curve models were next estimated for teacher-reported aggressive behavior. A model in which all means and variances were freely estimated fit the data significantly better than one in which all parameters were constrained to be equal, $\Delta\chi^2(12) = 89.17, p < .001$. Follow-up analyses indicated that the mean intercept differed across all four groups (all $ps \leq .001$). The mean slope did not differ across the four groups, $\Delta\chi^2(3) = 3.62, p = .31$. The variance of the intercept was significantly different for White girls, $\Delta\chi^2(1) = 13.80, p < .001$, and Black boys, $\Delta\chi^2(1) = 12.44, p < .001$, but not for Black girls, $\Delta\chi^2(1) = 2.21, p = .14$, or White boys, $\Delta\chi^2(1) = .20, p = .89$, and the variance of the slope did not differ across the four groups, $\Delta\chi^2(3) = 2.04, p = .56$. A final model constraining all parameters except those for which there was a significant group difference was estimated. This model fit the data well, $\chi^2(11) = 8.31, p = .69$, CFI = 1.00, RMSEA = .000, SRMR = .034. The mean intercept for each group

paralleled the racial biases reported above: Black girls $M = 1.77$, Black boys $M = 1.84$, White girls $M = 1.41$, and White boys $M = 1.57$. The mean slope for each group was positive and significantly different from 0 ($M = .046, p < .001$). There was significant variance in the latent intercept (all $ps < .001$; Black girls and White boys $M = .538$; Black boys $M = .738$; White girls $M = .319$) and significant variance in the latent slope for all children ($M = .06, p < .001$).

Conditional Growth Model for Teacher-reports of Prosocial Behavior

A multi-group conditional growth curve model was estimated for teacher-reported prosocial behavior. The model included the three predictor variables (i.e., fall peer-reported defending, PSR, and the defending \times PSR interaction) and intervention condition. Based on the unconditional models for prosocial behavior, the mean intercept was allowed to be freely estimated across the four groups. In addition, to allow for the predictor variables to accurately estimate differences in the slope across groups, the mean slope was allowed to be freely estimated. A model in which all predictive associations were allowed to be freely estimated fit significantly better than a model in which they were constrained to be equal across the four groups, $\Delta\chi^2(24) = 57.52, p < .001$. Follow-up analyses indicated that freeing the effect of condition on the intercept, $\Delta\chi^2(3) = 3.77, p = .29$, and on the slope, $\Delta\chi^2(3) = 4.83, p = .18$, for the four groups did not significantly improve model fit. For the effect of fall defending on the intercept, freeing the path led to significantly improved model fit, $\Delta\chi^2(3) = 8.69, p = .03$. Follow-up analyses showed that freeing this path for Black girls, $\Delta\chi^2(1) = 4.25, p = .04$, and White girls, $\Delta\chi^2(1) = 4.45, p = .04$, improved model fit, and that the path was significantly different between Black and White girls, $\Delta\chi^2(1) = 7.06, p = .008$. Freeing the pathway from defending to the slope did not lead to significantly better model fit, $\Delta\chi^2(3) = 1.01, p = .79$. For the effect of PSR on the intercept, freeing the path led to significantly improved model fit, $\Delta\chi^2(3) = 17.24, p = .001$.

Follow-up analyses showed that freeing this path for Black boys, $\Delta\chi^2(1) = 5.58, p = .02$, and White boys, $\Delta\chi^2(1) = 10.02, p = .001$, improved model fit, and that the path was significantly different between Black and White boys, $\Delta\chi^2(1) = 12.21, p = .001$. For the effect of PSR on the slope, freeing the paths led to significantly improved model fit, $\Delta\chi^2(3) = 13.23, p = .004$. Follow-up analyses showed that freeing this path for White girls, $\Delta\chi^2(1) = 18.62, p = .001$, improved model fit. Freeing the effect of the of defending \times PSR interaction on the intercept did not lead to significantly improve model fit, $\Delta\chi^2(3) = 1.19, p = .76$, but freeing the effect of the interaction on the slope did, $\Delta\chi^2(3) = 12.73, p = .005$. Follow-up analyses indicated that freeing this pathway for Black girls, $\Delta\chi^2(1) = 7.66, p = .005$, and White girls, $\Delta\chi^2(1) = 6.69, p = .009$, improved model fit, and that the path was significantly different between Black and White girls, $\Delta\chi^2(1) = 11.77, p = .001$.

A final model which constrained all paths to be equal across groups with the exception of those for which there was a significant group difference was estimated. This model fit the data well, $\chi^2(46) = 71.48, p = .009$, CFI = .981, RMSEA = .04, SRMR = .046. Across all four groups, intervention condition has no effect on the intercept ($b = -.04, p = .49$), but did positively predict the slope ($b = .09, p = .001$), indicating greater growth in prosocial behavior for the DRT intervention than for the empathy intervention.

All predictive paths are presented in Figure 3. In the prediction of the intercept, the main effect of defending was positive and significantly different for 0 for all groups ($ps < .001$). However, this effect was stronger for Black girls ($b = .81$) than for Black and White boys ($b = .62$) and was stronger for Black girls, Black boys, and White boys than for White girls ($b = .43$). The main effect of PSR was significant and negative for White boys, ($b = -.93, p = .001$) but was non-significant for Black boys ($b = .20, p = .26$) and for Black and White girls ($b = .02, p = .93$).

Moreover, the interaction between defending and PSR was significant for all four groups, ($b = .71, p = .009$).

In the prediction of the slope, the main effect of defending was non-significant for the four groups ($b = .00, p = .89$). PSR did not significantly predict the slope for Black boys or girls or for White boys ($b = .08, p = .23$), but was negatively associated with the slope for White girls ($b = -.42, p < .001$). Finally, the defending \times PSR interaction did not predict the slope for Black or White boys ($b = -.27, p = .12$) or for Black girls ($b = .25, p = .20$), but did negatively predict the slope for White girls ($b = -.63, p = .002$).

To interpret these findings, I estimated and plotted the trajectories of prosocial behavior for each group at high and low levels of fall defending and PSR (see Table 6 and Figure 3). For Black girls, fall defending was associated with higher teacher-reported prosocial behavior in the fall, and their prosocial behavior did not significantly increase or decrease throughout the school year as a function of defending or PSR classmates.

For Black boys, fall defending was associated with higher levels of teacher-reported prosocial behavior, particularly for Black boys in high PSR classrooms. However, at low levels of defending in the fall, Black boys were reported to have relatively low levels of prosocial behavior regardless of PSR. Furthermore, Black boys were estimated to have increases in teacher-reported prosocial behavior in high PSR classrooms regardless of their fall defending behavior.

For White girls, fall defending was associated with higher teacher-reported prosocial behavior, although even at lower levels of fall defending, White girls received higher ratings of prosocial behavior than most other children. At high levels of defending and high levels of PSR, teachers' ratings of White girls' prosocial behavior declined over the school year. In contrast, at

high levels of defending and low levels of PSR classmates, teachers' ratings of White girls' prosocial behavior increased.

Finally, for White boys, being high in defending and in low PSR classrooms was associated with higher teacher-ratings of prosocial behavior. Furthermore, White boys' received increasingly higher ratings of prosocial behavior from teacher regardless of how much they defended in the fall or the PSR classmates, although at low levels of defending and high levels of PSR the estimated slope was not statistically significant.

Conditional Growth Model for Teacher-reports of Aggressive Behavior

Next, a multi-group conditional growth curve model was estimated for teacher-reported aggressive behavior. The model included the three predictor variables and intervention condition. Based on the unconditional models for aggressive behavior, the mean intercept was allowed to be freely estimated across the four groups, and the variance of the intercept was allowed to be freely estimated for Black boys and White girls. In addition, to allow for the predictor variables to accurately estimate differences in the slope across groups, the mean slope was allowed to be freely estimated. A model in which all predictive associations were allowed to be freely estimated fit significantly better than a model in which they were constrained to be equal across the four groups, $\Delta\chi^2(24) = 60.19, p < .001$. Follow-up analyses indicated that freeing the effect of condition on the intercept, $\Delta\chi^2(3) = .45, p = .93$, and on the slope, $\Delta\chi^2(3) = 7.78, p = .051$, for the four groups did not significantly improve the model fit. For the effect of fall defending on the intercept, freeing the path led to significant improvement in model fit, $\Delta\chi^2(3) = 21.34, p = .001$. Follow-up analyses indicated that the path was different for Black and White boys compared to Black and White girls, $\Delta\chi^2(1) = 21.3, p = .001$. Freeing the pathway from fall defending to the slope led to significantly better model fit, $\Delta\chi^2(3) = 12.73, p = .005$. Follow-up analyses

indicated that freeing this pathway for White girls, $\Delta\chi^2(1) = 6.11, p = .01$, and White boys, $\Delta\chi^2(1) = 6.57, p = .01$, improved model fit, and White girls and boys significantly differed from each other, $\Delta\chi^2(1) = 7.53, p = .006$. For the effect of PSR on the intercept, freeing the paths did not lead to significantly improved model fit, $\Delta\chi^2(3) = 4.43, p = .22$. Freeing the pathway of PSR on the slope led to significantly improved model fit, $\Delta\chi^2(3) = 8.17, p = .04$. Follow-up analyses showed that freeing this pathway for Black boys improved model fit, $\Delta\chi^2(1) = 6.52, p = .01$. For the effect of the defending \times PSR interaction on the intercept, freeing the path did not lead to significantly improved model fit, $\Delta\chi^2(3) = 1.36, p = .72$, nor did freeing the path on the slope, $\Delta\chi^2(3) = 1.77, p = .62$.

A final model which constrained all paths to be equal across groups except for those for which there was a significant group difference was estimated. This model fit the data well, $\chi^2(45) = 72.69, p = .009, CFI = .99, RMSEA = .04, SRMR = .04$. Across all four groups, intervention condition had a significant negative effect on the intercept ($b = -.19, p < .001$), but did not have a significant effect on the slope ($b = .01, p = .55$).

All other parameter estimates are presented in Figure 4. In the prediction of the intercept, the main effect of defending was negative and significantly different from 0 for all groups, ($ps \leq .001$). The effect was strongest for Black and White boys ($b = -.63$), followed by Black and White girls ($b = -.37$). The main effect of PSR ($b = .14, p = .22$) and the defending \times PSR interaction were non-significant ($b = -.11, p = .61$).

For the slope, the effect of defending was negative and significant for White boys ($b = -.11, p = .004$), and non-significant for Black girls and Black boys ($b = -.02, p = .49$), and White girls ($b = .04, p = .25$). The main effect of PSR was positive and significant for Black girls, White girls, and White boys ($b = .16, p = .004$), and non-significant for Black boys ($b = -.09, p =$

.33). The main effect of the defending \times PSR interaction was non-significant for all four groups ($b = .04, p = .69$).

In interpreting these findings, I estimated and plotted the trajectories of aggressive behavior for each group at high and low levels of fall defending and PSR classmates (see Table 6 and Figure 4). For all children, fall defending was associated with lower ratings of aggressive behavior from teachers, and this effect was particularly strong for Black and White Boys. For Black girls, regardless of their level of fall defending, in classrooms with high PSR, they were estimated to have increasingly higher levels of teacher-reported aggressive behavior over the course of the school year, regardless of their fall defending. In contrast, and regardless of their fall defending, Black boys received increasingly higher ratings of aggressive behavior if they were in low PSR classrooms. White girls were estimated to receive increasingly higher ratings of aggressive behavior if they were reported to have high levels of defending in the fall in combination with being in a high PSR classroom, and White boys received increasingly higher ratings of aggressive behavior if they had low fall defending scores, regardless of whether they were in a high or low PSR classroom.

Discussion

Undoubtedly, teachers' perceptions of their students are informed by their students' behaviors (e.g., Bennet et al., 1993; Gest et al., 2005; Timmermans et al., 2016), as well as the biases they hold with regard to race and gender (e.g., Al-Thani & Semmar, 2017; Irizarry & Cohen, 2019; Muntoni & Retelsdorf, 2018; Saft & Pianta, 2001). The current study is novel in examining not only how teachers' perceptions of their students may be shaped by a confluence of observed behaviors and gender/racial biases, but also how biases may impact the extent to which teachers draw upon students' behaviors when forming their impressions. Therefore, the

focus was specifically on defending behaviors which are often ambiguous in intent and assertive in nature (Hawkings et al., 2001), and may, therefore, lead the teacher to view students as either increasingly prosocial or aggressive. There was strong evidence that teachers' early perceptions of their students' prosocial and aggressive behavior are associated with their students' gender, race, and defending of bullied peers and that these early biases in their initial perceptions persisted throughout the school year. Sadly, but not surprisingly, there were few instances in which defending was sufficient to counter teachers' racial biases, and there was no evidence of countering gender biases. Moreover, defending was predictive of changes in teachers' perceptions of students prosocial and aggressive behavior, but, in line with my predictions, only for White children. In contrast, changes in teachers' perceptions of Black children were tied only to the extent to which there was a higher percentage of Black children in their class. Together, the findings suggest that for all students defending was associated with more positive perceptions by their teacher, but there remained enduring gender and racial biases. Furthermore, teachers appeared to be more sensitive to White children's, but not Black children's, defending behavior when adjusting their perceptions of their students over the school year

Enduring of Effects of Defending, Gender, and Race

Although the primary goal of this study was to examine whether defending predicts changes in teachers' perceptions of students, the most salient pattern of findings reflected differences that emerged in the fall and were sustained throughout the school year. Consistent with the proposition that children's defending behaviors would be associated with more positive teacher evaluations of their behavior, peer-reported defending in the fall was associated with higher levels of teacher-reported prosocial behavior and lower levels of aggressive behavior. This parallels previous findings showing that children reported by peers as defenders are also

seen by peers as generally prosocial (Lambe & Craig, 2020). Defending behaviors encompass support of peers via methods such as comforting victims or telling the teacher of a bullying encounter (Huitsing & Monks, 2018; Kollerová et al., 2018; Lambe & Craig, 2020). It is not surprising, then, that they are seen as prosocial by their classmates. The current study extends this research by suggesting that teachers are similarly aware of their students' defending behavior and possibly are attuned to the social dynamics of the classroom that led to the defending behavior (Norwalk et al., 2016), allowing them to see students who defend as prosocial. Furthermore, students who frequently defend peers often are high in empathy, low in moral disengagement, and accepted by peers (Pöyhönen et al., 2010; Sainio et al., 2011). Teachers, therefore, may be prone to see children who defend in a positive light. Consequently, defending may not only aid the socioemotional development of students, but also aid in children's positive relationships with teachers.

However, the strength of the associations between defending and teachers' perceptions often varied by children's race, gender, or PSR classmates. For Black boys and girls, defending was more strongly associated with teacher-reported prosocial behavior when they were in a higher PSR classroom. These findings are consistent with Intergroup Contact Theory (ICT). Teachers in classrooms with a high percentage of Black students may have more consistent interactions with students not part of their racial in-group and have more opportunities to create positive connections with out-group students (Hughes et al., 2017; Pettigrew & Tropp, 2006). Hence, teachers with many Black students may hold reduced biases and more positive regard for their students' behaviors, creating greater sensitivity to their students' defending behaviors and a stronger propensity to utilize defending behaviors as a basis for seeing their students as prosocial.

In addition, the association between defending and teacher-rated prosocial behavior was stronger for Black girls than for any other group. Unfortunately, society often stereotypes Black girls as lacking traditional standards of femininity, particularly passivity in the face of conflict (e.g., framing normative assertive behaviors as loud, angry, or bossy; Blake et al., 2011; Leath et al., 2019). Observing, or learning about, their Black female students' defending of peers may cause teachers to view their Black female students' assertive behaviors through a less stereotypical, more prosocial, lens. While one may be tempted to interpret this finding in terms of how defending benefits Black girls, it is important to be mindful that it also underscores how Black youth often have to go above and beyond to achieve the same outcomes as White youth, including establishing a positive impression among teachers (Blake et al., 2011).

In comparison, defending had the weakest association with teacher-reported prosocial behavior for White girls. This was counter to expectations, but highly consistent with the stereotype that White girls are highly prosocial (Morris, 2007). White girls at high levels of defending received amongst the highest teacher reports of prosocial behavior regardless of whether they were in a high or low PSR classroom. Additionally, White girls at lower levels of defending, regardless of the PSR children in their class, received moderately high teacher reports as prosocial, with ratings matching that of the highest ratings of prosocial behavior for boys. Thus, White girls appear to benefit from teachers' assumptions of traditional standards of femininity, including that girls are caring, supportive, and generally prosocial (Brown, 2001; Morris, 2007). Thus, while girls are seen as more prosocial by their teachers when they engage in defending, they are still seen as relatively prosocial compared to other students even if they do not defend.

Perhaps due to defending countering gender stereotypes for boys, the association between defending and teacher-reports of prosocial behavior was stronger for White boys than for White girls. Moreover, for White boys, the positive effects of defending were strongest in lower PSR classrooms. This finding suggests that White boys tend to benefit from being in classrooms where they are in the racial minority. When in the racial minority, White boys may benefit from two seemingly contradicting processes. Due to increased contact with Black children, teachers with a higher percentage of Black students may view those children in less stereotypical ways (Hughes et al., 2017; Pettigrew & Tropp, 2006). However, as pointed out by Biernat (2003) individuals can be judged positively on within-group standards while simultaneously holding prejudicial between-group standards (e.g., they may view one student as high on prosocial behavior for a Black child and one student as average for a White child while still viewing the White student as more prosocial than the Black child). Thus, as teachers with majority Black students come to see their Black students more positively, they may adjust their evaluations of their White students to maintain their prejudicial views (e.g., rate their White students even more positively than they would have if they were teaching in a White majority classroom). That this was found for boys only may reflect the strong bias to rate girls as high in prosocial behaviors regardless of the racial composition of the classroom.

Similarly, peer-reported defending in the fall was associated with lower levels of teacher-reported aggressive behavior for all groups. However, this association was stronger for boys than girls. This implies that, with regard to being seen as aggressive, boys receive the most benefit from being defenders. This may be due to the common perception that boys are more aggressive than girls (Martin, 1995), as well as mounting evidence that boys are, at least, more overtly aggressive than girls (Card et al., 2008). Additionally, in the bullying context, boys are more

likely to take the role of the bully or the bully's assistant or reinforcer (Salmivalli et al., 1996). Teachers, therefore, may assume that they are aggressive, or engage in pro-bullying behaviors, if they are not defenders. When boys do defend peers, their behaviors may be salient because they contrast with commonly held stereotypes. However, even when taking into account the positive effects of defending for boys, robust racial differences were still present. Indeed, Black children at high levels of defending still received aggression scores similar to those of low-defending White girls. These results underscore the pervasiveness of teachers' assumptions that White girls are less aggressive than other children (Graham & Juvonen, 2002; Hudley, 1993; Zimmerman et al., 1995).

Effects of Defending, Gender, and Race on Changes in Teachers' Perceptions of Students

Although the most prominent pattern of findings reflected differences that occurred in the fall, changes in teachers' perceptions of students also appeared throughout the year. The initial hypothesis was that peer reports of defending behaviors would predict trajectories of increasing teacher-rated prosocial behavior and decreasing teacher-rated aggression. Results indicated that only for White boys did defending predict trajectories of aggression. When White boys had higher levels of defending, they maintained their trajectory of low levels of reported aggression. However, when White boys had low levels of defending, they were estimated to have a trajectory of increasing teacher-reported aggression. This may further confirm that when White boys do not engage in defending behaviors, they are increasingly stereotyped as more aggressive (Archer, 2004) However, for White boys, defending may reduce how much teachers see them through this stereotypic lens.

Defending also predicted the trajectories of teacher-reported prosocial behavior, but, in this case, only for White girls. Unexpectedly, this association between defending and changes in

prosocial behavior was further moderated by PSR classmates. Defending was predictive of teacher-reports of decreasing prosocial behavior when White girls were in high PSR classrooms and was predictive of increasing teacher-reported prosocial behavior when White girls were in low PSR classrooms. As shown in Figure 5, over the school year, teachers gradually see their students, on average, more positively. When White girls are in the racial minority and they engage in defending behaviors teachers may see them as increasingly more positive as a means of maintaining prosocial stereotypes about White girls and women (see Biernat, 2003). An opposite process may happen for high defending girls in high PSR classrooms. The effect of teachers' gender and racial stereotypes may cause these girls to increasingly seem "typical" for their gender and racial group. Thus, teachers may see them as gradually less prosocial over time as they are compared to a large number of White girls who are also seen as prosocial. However, it is important to note that while the findings point to a within-person decrease in teacher-reported prosocial behavior for White girls in high PSR classrooms, they were still among the most highly rated as prosocial by teachers in the spring.

The extent of same-race classmates also moderated the association between defending and within-person changes in aggression, but only for girls and Black boys. Girls were reported by teachers as being increasingly aggressive over the school year if they were in high PSR classrooms. When girls are in classrooms with more same-race peers, they may become more involved in social dynamics (e.g., cliques; Closson & Watanabe, 2018) and conflicts that could reinforce stereotypes of girls as mean, "catty," and social aggressive (Coyne et al., 2008; Horn, 2004). One caveat to this was that, for White girls, increases in teacher-reported aggression in high PSR classrooms was found only for girls high in defending. White girls who refrain from defending may be likely to take on an outsider role (Salmivalli et al., 1996), and, therefore may

be less engaged in social conflicts and less likely to be seen as aggressive by their teachers. Low levels of defending, however, did not protect Black girls from being seen by teachers as increasingly aggressive.

In contrast to girls, Black boys were seen by teachers as increasingly aggressive when they were in low PSR classrooms. This finding is consistent with ICT. Due to the stereotype that Black boys are aggressive (Graham & Juvonen, 2002; Hudley, 1993; Zimmerman et al., 1995), teachers may be inclined to see them as increasingly aggressive. However, being in a high PSR classroom may protect Black boys from being seen as increasingly aggressive, as their teacher's biases are reduced through greater exposure to Black children. It should be acknowledged that these within-person changes were slight relative to the large between-group differences that were present beginning in the fall and reflected the joint influence of defending, gender, and race.

Strengths, Weakness, and Future Directions

This study is novel in its focus on understanding the role of defending behaviors in teachers' perceptions of their students. By adding gender, race, and racial composition as variables, this study furthers our understanding of how biases influence teachers' evaluations of students, particularly when students' behavior intends to be prosocial but may be interpreted otherwise. One weakness of this study was that the majority of the teachers were White, prohibiting a comparison of the effects across teachers of different races. Studies have shown that Black teachers are less likely to report their Black students as aggressive or disruptive compared to teachers of other races (Redding, 2019). Thus, to fully understand teachers' perceptions of all students who defend and how biases may influence those perceptions, research is needed in which the sample contains more racially and ethnically diverse teachers. Similarly, this study was completed in rural schools in the southeastern United States and focused only on

Black and White children. Thus, the sample was limited in terms of demographic diversity (i.e., race, ethnicity, socio-economic status, historical context). Similar studies in varied regions of the world or the United States, or in more urban or suburban communities may produce different results and should be conducted to further this line of research.

Strengths of this study included the large sample size and longitudinal design with data collected over three waves. Further, by using peer-reported defending and teacher-reported prosocial and aggressive behaviors, associations could not be due to shared method variance. However, a limitation to this study was the inability to examine teachers' perceptions of the defending behavior itself. Future studies should examine how teachers evaluate the pro-sociality and aggressiveness of defending behaviors and whether those evaluations vary as a function of the gender or race of the child enacting the defending. For example, researchers could present teachers with hypothetical scenarios of students defending a bullied peer. The scenario could then be altered to incorporate protagonists of diverse gender and race.

Additionally, one of the weaknesses of this study was that the peer-report measure was limited to three items that varied as to the nature of the defending behaviors assessed. This did not allow for an analysis of how different types of defending may be associated with teachers' perceptions of their students. For example, defending when directed toward the bully is more assertive and physically or verbally aggressive, while defending directed towards the victim is more comforting and supportive (Hawkings et al., 2001). It is therefore important to understand how engaging in different types of defending behaviors is associated with teachers' judgments of their students and how this may vary by the students' gender or race.

Another limitation of this study is the inclusion of only children in the 4th- and 5th- grades. It will be important to examine these associations with younger and older samples. For

example, younger children are in self-contained classrooms with more opportunities for their teachers to observe their behavior. Younger children are also more likely to engage in both aggression (Lee et al., 2007) and defending (Lambe et al., 2017; Pöyhönen et al., 2010). Therefore, teachers may have more opportunities to observe or learn about their students defending, making such behaviors a basis for their impressions of their students. In contrast, as children move into adolescence, their attitudes and beliefs about bullies adjust, becoming more approving of aggressive behaviors and less inclined to engage in defending behaviors (Salmivalli & Voeten, 2004). Moreover, teachers in middle and high schools may have less knowledge of their students' peer interactions due to having different classrooms of students throughout the day (Košir & Tement, 2014). Since frequency and time spent with adolescents diminishes for teachers, they may rely more heavily on gender and racial biases when interpreting their students' behaviors.

Implications for School Personnel

A significant finding in this study is that, overall, defending is associated with being perceived by teachers as more prosocial and less aggressive. Though defending may be only weakly related to changes in teachers' perceptions over the year, this study highlights how the benefits of defending extend to teacher-student relationships. Thus, one implication of this work is that it provides further evidence for the need to implement programs that encourage and teach defending among children and adolescents. The KiVa anti-bullying program, which includes lessons, online games, interactive role-plays, and poster creation, is one intervention that has been developed and found to improve students' affective empathy towards the victim of bullying (Garandeau et al., 2021). Additionally, several anti-bullying interventions found that encouraging

students' pro-victim stances was associated with reduced bullying perpetration in classrooms and increased defending (Gaffney et al., 2021; Salmivalli et al., 2005).

Similarly, this study suggests that teachers are unlikely to adjust their perceptions of their Black students based on their defending behaviors. Teachers may often be unaware of the circumstances surrounding their Black students' defending behaviors. They, therefore, may be prone to pigeon-hole their Black students rather than adjusting their perceptions based on the students' peer interactions. However, if more aware of their students' peer relationships and the peer dynamics of their classroom, teachers may be less inclined to rely on initial impressions and stereotypes when evaluating their students. Training programs geared toward instructing teachers how to identify and understand their students social relationships have been successful in promoting teachers' positive classroom management and student adjustment, and students whose teachers have gone through such programs report more supportive and positive environments with teachers and peers (Farmer et al., 2010; Hamm et al., 2011). Such programs may be similarly successful in helping teachers see the prosocial actions of all of their students and help reduce biases in teachers' perceptions of their students.

Lastly, as shown here and in previous studies, teachers' perceptions of their students are strongly affected by their racial and gender biases (e.g., Al-Thani & Semmar, 2017; Irizarry & Cohen, 2019; Saft & Pianta, 2001; Tenenbaum & Ruck, 2007), and evidence shows that these biases affect how teachers interact with their students (Alvidrez & Weinstein, 1999; Veenstra et al., 2008). Training teachers to become aware of, and modify, their biases may allow them to adjust their interactions and perceptions of their students consciously and quickly. Research on interventions aimed to lessen the effect implicit biases has grown over the last two decades (Paluck et. al., 2021). For example, one intervention reported improvements in participants'

awareness and reduction of their implicit biases after completing a 12-week training focused on recognizing stereotypes, perspective taking, and increased contact with out-group members (Devine et. al., 2012). Extending such programs to school personnel would allow for teachers to see their students as unique individuals and support their students' efforts to succeed educationally and emotionally.

Conclusion

Ultimately, this study underscores how students' defending is associated with being seen more positively by teachers, how this potential benefit of defending is limited by teachers' racial and gender biases, and how the impact of those biases may be dependent on the racial composition of the classroom. Although the exact findings for prosocial and aggressive behavior varied, a pattern emerged such that White children benefitted in both in how defending was less necessary for being perceived positively by teachers than it was for Black children and in how, for White children only, defending predicted being seen by teachers as increasingly more prosocial and less aggressive over time.

There is strong evidence to rebut any arguments that teachers' less positive ratings of Black students could reflect actual racial differences in behavior. There is an extensive literature demonstrating that when children's behavior is assessed using objective measures (e.g., observational data, school records), no racial differences in prosocial behavior, aggression, or delinquency are found (e.g., McCarthy & Hoge, 1987; Putallaz et al., 2007; Skiba et al., 2002; Vaughn et al., 2000). At the same time, there is overwhelming evidence that implicit racial biases impact interpersonal perceptions (e.g., Graham & Juvonen, 2002; Hudley, 1993; Saft & Pianta, 2001; Zimmerman et al., 1995). Moreover, stereotypes of Black individuals as behaviorally deviant stand in stark contrast to the strong emphasis placed within Black families

and communities on socializing children to have strong moral values, community engagement, respect for others, and prosociality (Hill, 2001; Murry et al., 2018; Stevenson, 1998). Whether differences in teachers' ratings of girls and boys is based on actual gender differences in behavior is more difficult to determine. Although gender differences in more covert, relational forms of aggression are trivial (Archer, 2004; Card et al., 2008), observational studies typically find that girls are more prosocial (Hay et al., 2021; Kuhnert et al., 2017) and less overtly aggressive than boys (Card et al., 2008). Teachers' ratings may be more influenced by the observable overt aggressive and prosocial behaviors displayed by their students than the more covert ones. Therefore, the gender differences in teachers' ratings found in this study likely reflect a combination of actual observed gender differences in students' behavior and teachers' biases and gender stereotypes.

By examining gender and race separately, we are able to explicate how these two facets of identity uniquely and interactively contribute to teachers' perceptions of their students and how behaviors adults desire from children may not equally lead to positive adult evaluations. The patterns were often nuanced, showing that White girls enjoy strong positive teacher appraisals while White boys benefitted from improved teachers' perceptions across the school year regardless of whether they engaged in defending. Consistent with an intersectionality lens (Cho et al., 2013), whether children were advantaged or disadvantaged by their gender or race also varied by context. For example, when Black children were highly represented in classrooms, gender became a salient factor in whether the teacher rated them positively or negatively. It is important to note that these biases in perceptions likely contribute to larger power differences and structural inequities in schools, including disproportionate rates and severity of school punishments (Hughes et al., 2017; Putallaz et al., 2007; Skiba et al., 2002) and lower academic

expectations by teachers (Kleen & Glock, 2017). The findings in this study underscore the importance of further research regarding awareness and adjustment of teachers' perceptions of their students, especially when influenced by gender and racial biases, and prosocial behaviors such as defending.

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Table 1

Descriptive Statistics.

Variable	Black girls		Black boys		White girls		White boys	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Percent the same race	.44	.27	.47	.26	.61	.15	.62	.14
Fall defending	2.44	.43	2.25	.46	2.74	.45	2.44	.45
Fall prosocial behavior	3.25	.97	2.94	.93	3.56	.97	3.05	1.02

Winter prosocial behavior	3.42	.96	3.15	1.02	3.62	.97	3.12	1.04
Spring prosocial behavior	3.37	.98	3.21	.97	3.69	.97	3.28	.99
Fall aggressive behavior	1.79	.89	1.83	.93	1.43	.62	1.56	.79
Winter aggressive behavior	1.80	.87	1.91	1.03	1.46	.62	1.61	.77
Spring aggressive behavior	1.87	.85	1.99	1.02	1.47	.64	1.65	.82

Table 2

Black Girls Bivariate Correlations.

Variable	1	2	3	4	5	6	7
1. Percent the same race	-						
2. Fall defending	-.23**	-					
3. Fall prosocial behavior	-.08	.37**	-				
4. Winter prosocial behavior	.11	.27**	.64**	-			
5. Spring prosocial behavior	-.05	.34**	.57**	.62**	-		
6. Fall aggressive behavior	.01	-.23**	-.34**	-.24**	-.27**	-	
7. Winter aggressive behavior	.05	-.19**	-.28**	-.32**	-.28**	.72**	-
8. Spring aggressive behavior	.09	-.19**	-.31**	-.32**	-.41**	.60**	.74**

* $p < .05$. ** $p < .01$.

Table 3

Black Boys Bivariate Correlations.

Variable	1	2	3	4	5	6	7
1. Percent the same race	-						
2. Fall defending	-.13*	-					
3. Fall prosocial behavior	-.03	.19**	-				
4. Winter prosocial behavior	.17**	.22**	.59**	-			
5. Spring prosocial behavior	.04	.26**	.48**	.55**	-		
6. Fall aggressive behavior	.12	-.34**	-.36**	-.39**	-.39**	-	
7. Winter aggressive behavior	.05	-.34**	-.27**	-.40**	-.35**	.79**	-
8. Spring aggressive behavior	.09	-.38**	-.29**	-.38**	-.39**	.73**	.81**

* $p < .05$. ** $p < .01$.

Table 4

White Girls Bivariate Correlations.

Variable	1	2	3	4	5	6	7
1. Percent the same race	-						
2. Fall defending	.15*	-					
3. Fall prosocial behavior	-.01	.21**	-				
4. Winter prosocial behavior	-.08	.14**	.64**	-			
5. Spring prosocial behavior	-.15**	.18**	.53**	.59**	-		
6. Fall aggressive behavior	-.02	-.23**	-.28**	-.26**	-.29**	-	
7. Winter aggressive behavior	.13**	-.18**	-.29**	-.37**	-.33**	.69**	-
8. Spring aggressive behavior	.13*	-.16**	-.27**	-.26**	-.37**	.58**	.73**

* $p < .05$. ** $p < .01$.

Table 5

White Boys Bivariate Correlations.

Variable	1	2	3	4	5	6	7
1. Percent the same race	-						
2. Fall defending	.15**	-					
3. Fall prosocial behavior	-.08	.34**	-				
4. Winter prosocial behavior	-.08	.31**	.70**	-			
5. Spring prosocial behavior	-.10*	.24**	.48**	.59**	-		
6. Fall aggressive behavior	.07	-.30**	-.38**	-.29**	-.23**	-	
7. Winter aggressive behavior	.08	-.33**	-.33**	-.41**	-.31**	.73**	-
8. Spring aggressive behavior	.08	-.41**	-.33**	-.35**	-.46**	.62**	.73**

* $p < .05$. ** $p < .01$.

Table 6

Estimated Intercepts and Slopes by Racial/Gender Group

	Prosocial behavior				Aggressive behavior			
	Intercept	<i>p</i>	Slope	<i>p</i>	Intercept	<i>p</i>	Slope	<i>p</i>
Black girls								
High def/high PSR	3.78	.001	0.00	1.00	1.75	.001	.09	.02
High def/low PSR	3.52	.001	.03	.55	1.70	.001	-.01	.74
Low def/low PSR	3.04	.001	-.04	.37	1.99	.001	.02	.53
Low def/high PSR	2.83	.001	.07	.08	2.08	.001	.09	.009
Black boys								
High def/high PSR	3.39	.001	.09	.03	1.67	.001	.04	.22
High def/low PSR	3.19	.001	.05	.26	1.62	.001	.08	.03
Low def/low PSR	2.69	.001	.04	.30	2.18	.001	.11	.008
Low def/high PSR	2.68	.001	.11	.006	2.26	.001	.06	.19
White girls								
High def/high PSR	3.81	.001	-.08	.03	1.38	.001	.07	.003
High def/low PSR	3.73	.001	.09	.01	1.36	.001	.007	.77
Low def/low PSR	3.41	.001	.06	.09	1.66	.001	-.02	.52
Low def/high PSR	3.33	.001	-.03	.46	1.72	.001	.025	.43
White boys								
High def/high PSR	3.27	.001	.07	.02	1.39	.001	.02	.27
High def/low PSR	3.43	.001	.07	.04	1.38	.001	-.03	.15
Low def/low PSR	2.96	.001	.05	.15	1.91	.001	.07	.02
Low def/high PSR	2.58	.001	.11	.003	1.96	.001	.11	.002

Figure 1.

Predicting the Trajectory of Teacher-Reported Prosocial Behavior

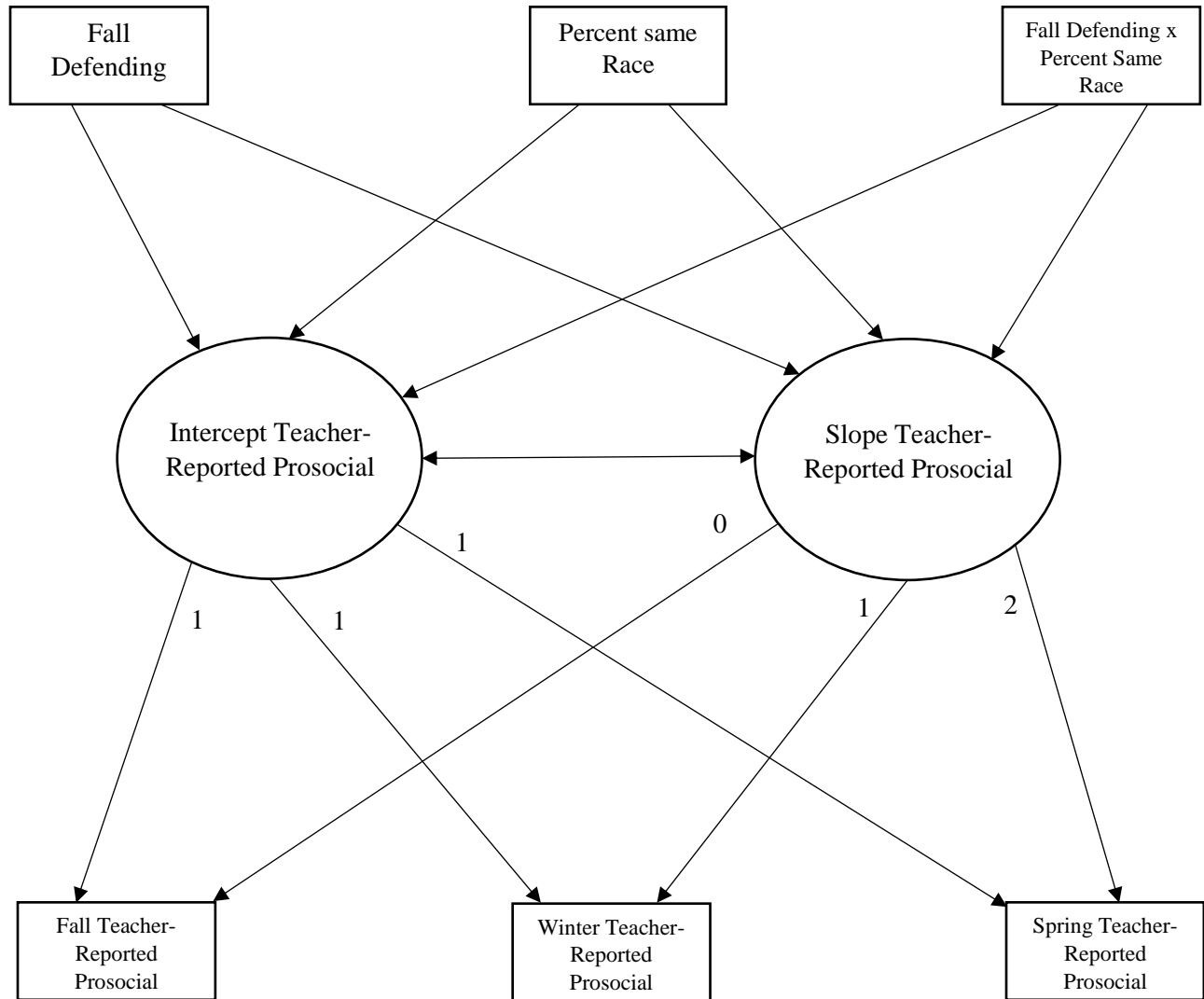


Figure 2.

Predicting the Trajectory of Teacher-Reported Aggressive Behavior

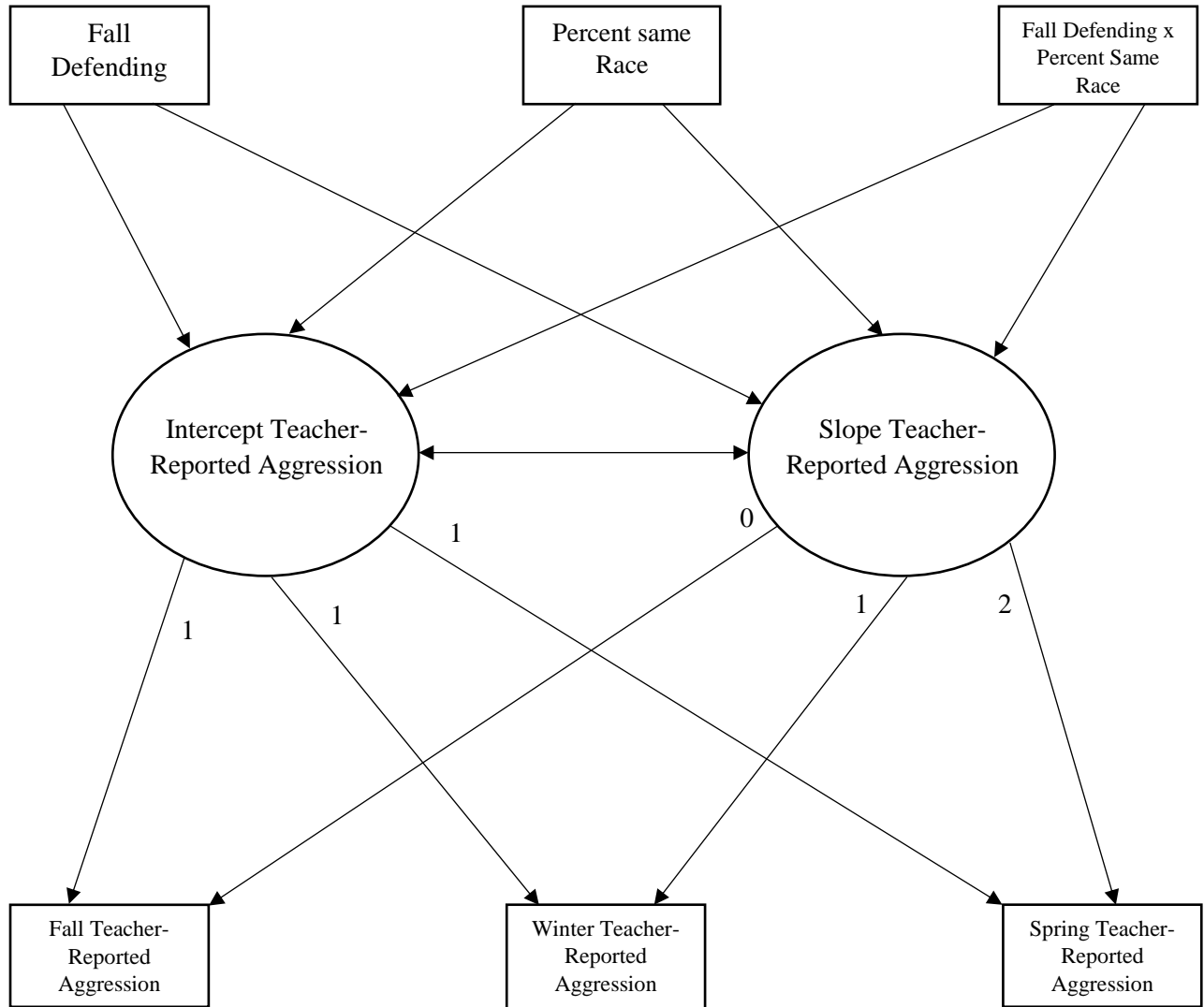
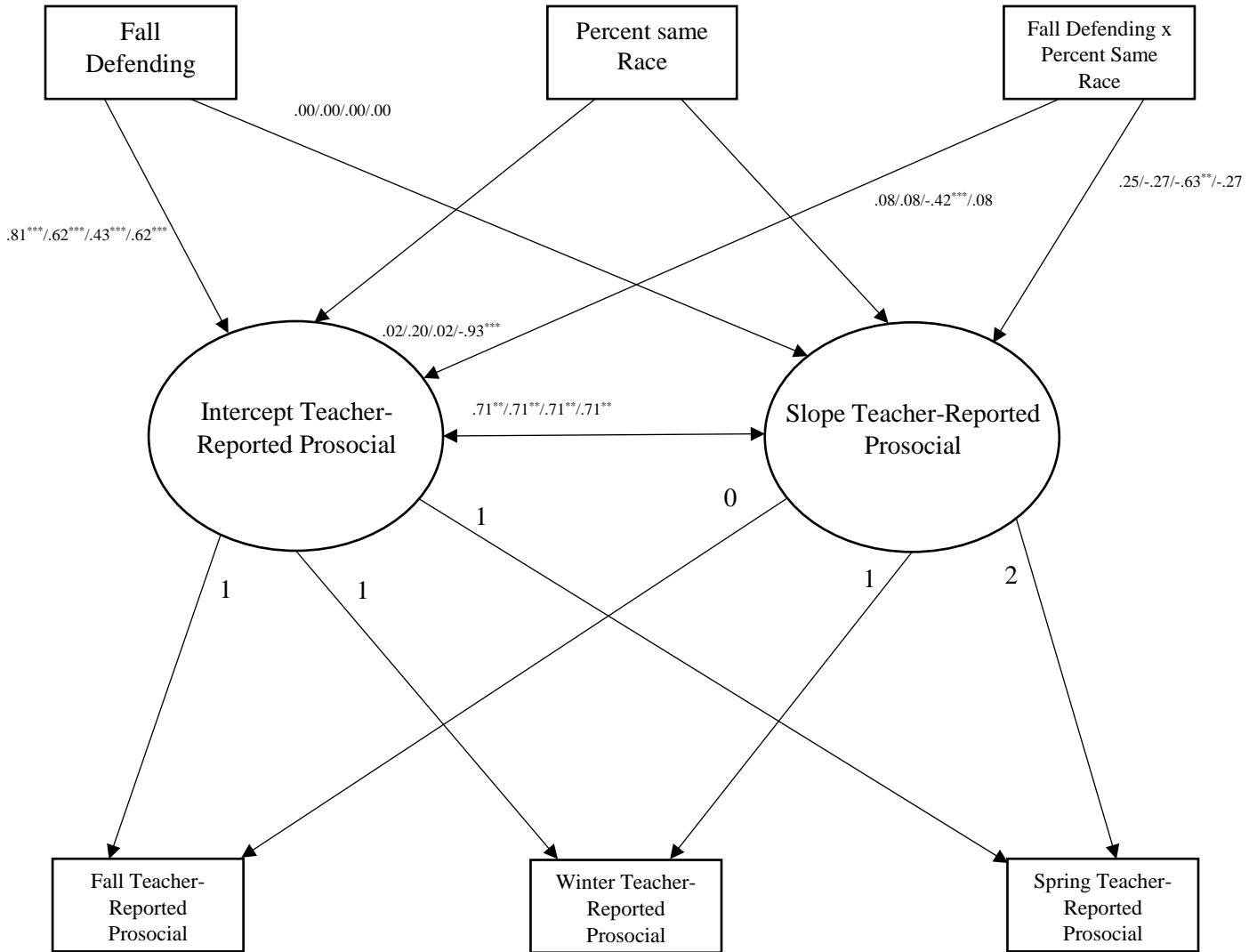


Figure 3.

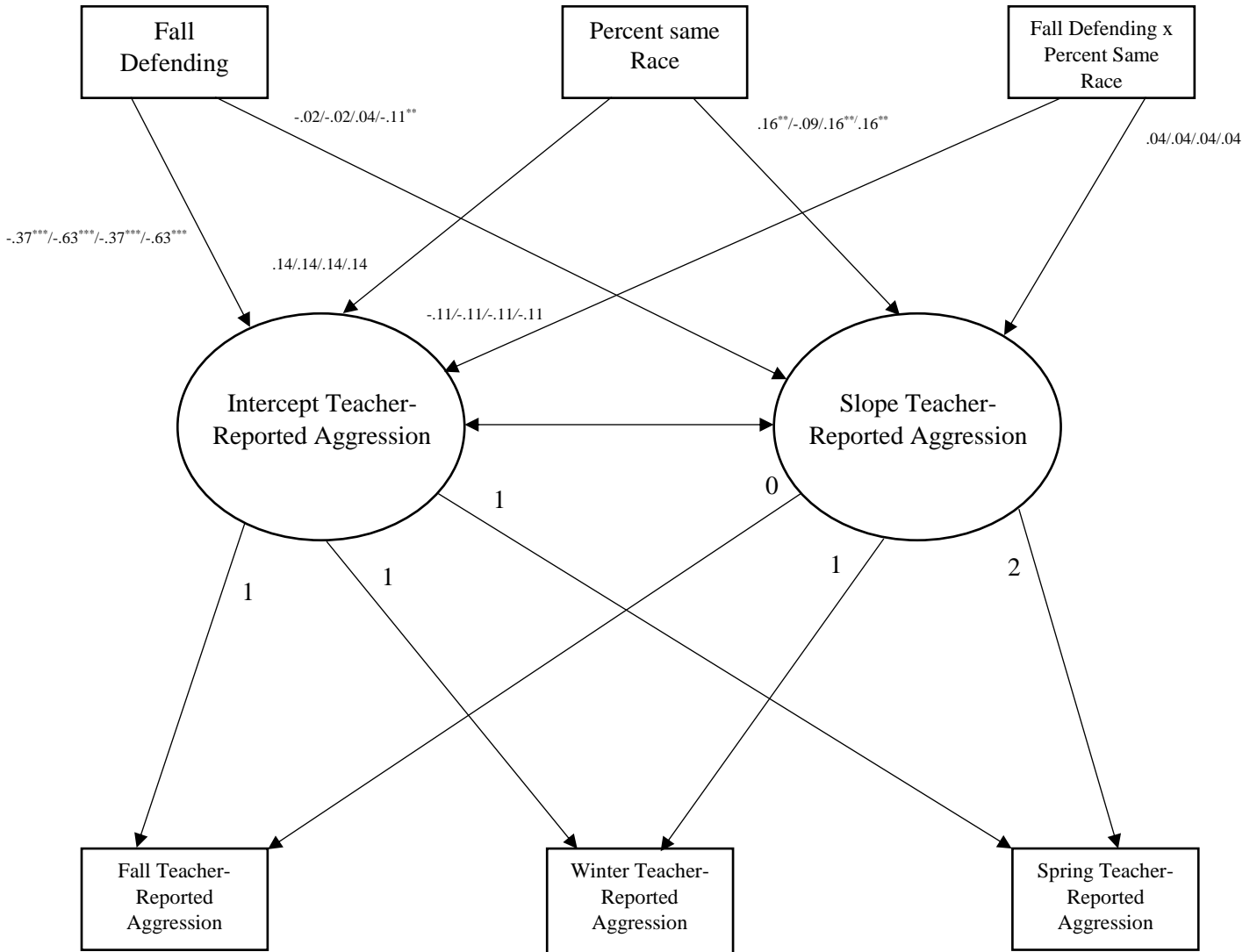
Predicting the Trajectory of Teacher-Reported Prosocial Behavior



Note. Coefficients are presented in the following order: Black girls, Black boys, White girls, and White boys.

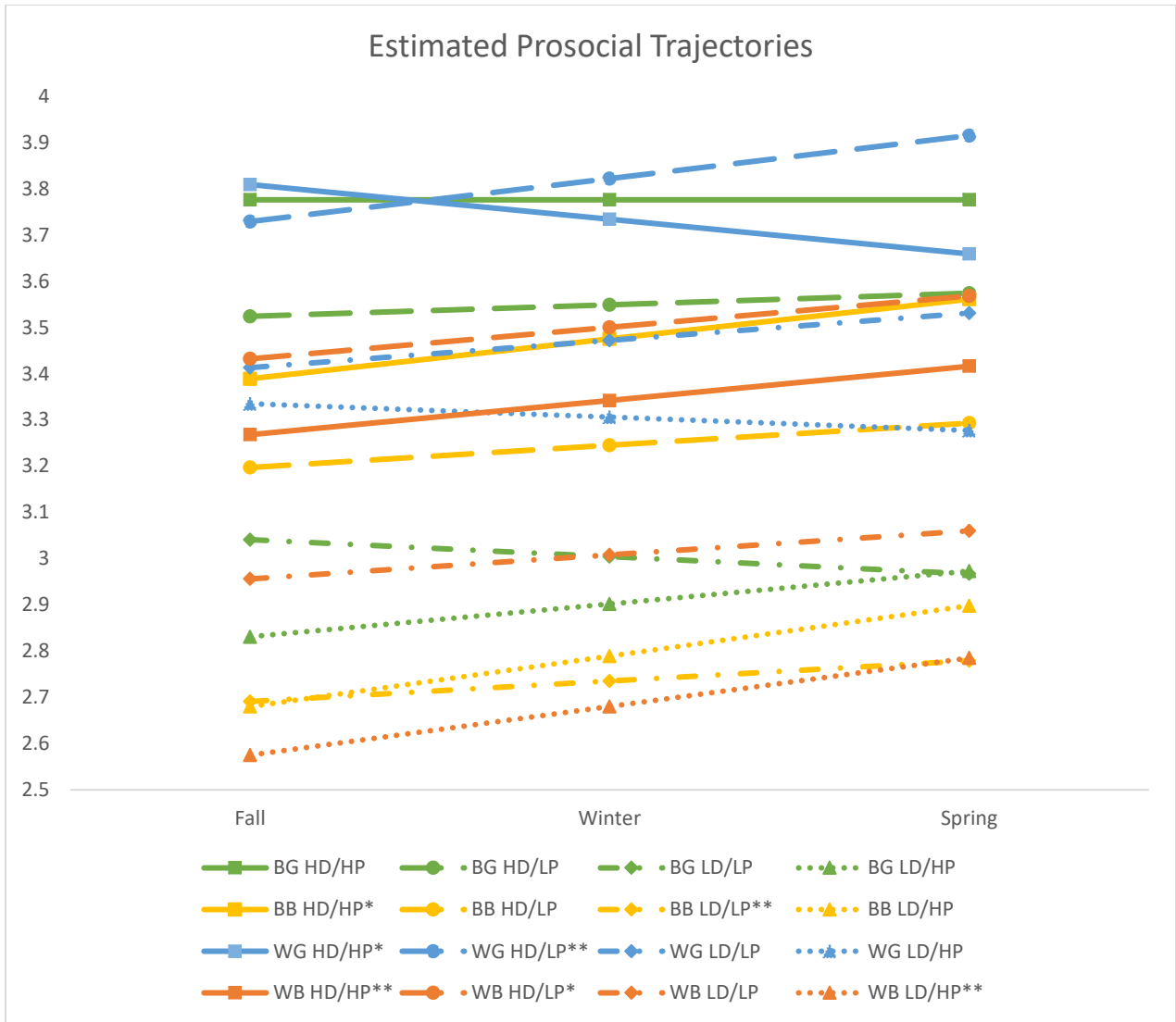
Figure 4.

Predicting the Trajectory of Teacher-Reported Aggressive Behavior



Note. Coefficients are presented in the following order: Black girls, Black boys, White girls, and White boys.

Figure 5.



Note. The graph shows estimated trajectories of teacher-reported prosocial behavior during the academic school year.

Figure 6.



Note. The graph shows estimated trajectories of teacher-reported aggressive behavior during the academic school year.

Appendix A

Peer-Reported Participant Role Questionnaire-Revised

How often does _____ comfort kids when they are bullied or encourage them to tell the teacher about the bullying?

How often does _____ tell others to stop bullying?

How often does _____ try to make other kids stop bullying?

Appendix B

Children's Social Behavior Questionnaire

Directions: Here is a list of things that some kids do. How true are each of these statement for this student?

	Never True of This Child				Almost Always True of This Child
1. When this child is mad at a peer, she or he gets even by excluding the peer from his or her clique or peer group.	1	2	3	4	5
2. When mad at a peer, this child ignores the peer or stops talking to the peer.	1	2	3	4	5
3. This child threatens to hit or to beat up other children.	1	2	3	4	5
4. This child spreads rumors or gossips about some peers.	1	2	3	4	5
5. This child threatens to stop being a peer's friends in order to hurt the peer or to get what he or she wants from the peer.	1	2	3	4	5
6. This child tries to dominate or bully peers.	1	2	3	4	5
7. This child says supportive things to peers.	1	2	3	4	5
8. When angry at a peer, this child tries to get other children to stop playing with the peer or to stop liking the peer.	1	2	3	4	5
9. This child tries to exclude certain peers from peer group activities.	1	2	3	4	5
10. This child tries to cheer up peers when they are sad or upset about something.	1	2	3	4	5
11. This child tries to get others to dislike certain peers by telling lies about the peers to others.	1	2	3	4	5
12. This child hits, shoves, or pushes peers.	1	2	3	4	5
13. This child is helpful to peers.	1	2	3	4	5
14. This child initiates or gets into physical fights with peers.	1	2	3	4	5
15. This child is kind to peers.	1	2	3	4	5