

The Role of Teachers in Bullying: The Relation Between Antibullying Attitudes, Efficacy, and Efforts to Reduce Bullying

René Veenstra
University of Groningen

Siegwart Lindenberg
University of Groningen and Tilburg University

Gijs Huitsing
University of Groningen

Miia Sainio
University of Turku

Christina Salmivalli
University of Turku and Edith Cowan University

In order to battle bullying, it can be important for students to have teachers whom they see as taking an active stand against bullying in terms of propagating antibullying norms and having an efficacious approach to decreasing bullying. This expectation was tested with data from the control schools of the Finnish evaluation of the KiVa antibullying program. Multilevel analyses of data from 2,776 fourth- to sixth-graders showed that students' perceptions of their teachers' efficacy in decreasing bullying was related to a lower level of peer-reported bullying. Students' perceptions of their teachers' efforts to decrease bullying, however, was cross-sectionally related to a higher level of peer-reported bullying, but over time was related to a reduction in peer-reported bullying. In classes where teachers were not perceived as efficacious and had to exert a great deal of effort to reduce bullying, students with probullying attitudes and without antibullying effort had the highest level of bullying. The current findings show that teachers can play an important role in antibullying programs and should be seen as targets of intervention.

Keywords: bullying, goal-framing, longitudinal, significant others, teachers

Bullying is a common phenomenon in primary and secondary schools. Because bullying is a highly undesirable kind of behavior, the most obvious kind of intervention against it would seem to be sanctioning bullies through loss of privileges, detentions, and suspensions (Anderson & Kincaid, 2005). Alternatively, one may focus on empowering the victim (Fox & Boulton, 2003) or on mediation between bullies and victims (Pikas, 2002). Some of these interventions have indeed been successful. However, the insight that the social context of bullying is also important (Salmivalli, Lagerspetz, Björkqvist, Osterman, & Kaukiainen, 1996) has inspired new interventions that focus not only on bullies

and victims but also on bystanders (Polanin, Espelage, & Pigott, 2012; Smith, Pepler, & Rigby, 2004). The advantage of going beyond the scope of the bully and the victim is that a whole-group intervention can make all persons responsible for everyone's well-being, teach teachers and students safe strategies to support and help victims, and change classrooms norms in such a way that bullying behavior becomes associated with low status and low affection.

A great deal is known about the role that the peer group plays in bullying (Salmivalli, 2010), but less is known about the role of the teacher. Understanding how teachers' responses to bullying influ-

This article was published Online First February 24, 2014.

René Veenstra, Department of Sociology and Interuniversity Center for Social Science Theory and Methodology, University of Groningen, Groningen, the Netherlands; Siegwart Lindenberg, Department of Sociology and Interuniversity Center for Social Science Theory and Methodology, University of Groningen, and Department of Psychology, Tilburg University, Tilburg, the Netherlands; Gijs Huitsing, Department of Sociology and Interuniversity Center for Social Science Theory and Methodology, University of Groningen; Miia Sainio, Department of Psychology, University of Turku, Turku, Finland; Christina Salmivalli, Department of Psychology, University of Turku, and Department of Psychology, Edith Cowan University, Joondalup, Australia.

This research was partly supported by grants from the Academy of Finland (121091, 134843) to Christina Salmivalli and from the Dutch

Ministry of Education (Onderwijs Bewijs) to René Veenstra, and by a Toptalent Grant (021.002.022) from the Netherlands Organization for Scientific Research to Gijs Huitsing. In addition, the study is part of the KiVa project, funded by the Finnish Ministry of Education and Culture, for developing an antibullying intervention program for the comprehensive schools. The project is led by Christina Salmivalli (Department of Psychology) and Elisa Poskiparta (Centre of Learning Research) at the University of Turku. We are grateful to all children, their parents, and teachers who made the study possible, and all the colleagues working to realize the KiVa project.

Correspondence concerning this article should be addressed to René Veenstra, Interuniversity Center for Social Science Theory and Methodology, University of Groningen, Grote Rozenstraat 31, 9712 TG Groningen, the Netherlands. E-mail: d.r.veenstra@rug.nl

ence the likelihood of bullying occurring may be critical for the development and successful implementation of an antibullying program. On the basis of goal-framing theory (Lindenberg 2008, 2013), we hypothesized that teachers who stand up against bullying create an atmosphere in which more students find it easier to abstain from bullying. As we explicate below, we expected that teachers who clearly stood for antibullying norms would be likely to strengthen their students' goal to act appropriately. The aim of this study was to test this conjecture by analyzing how the teachers' stand against bullying in terms of their perceived antibullying attitudes, their efficacy, and their effort was related to the level of bullying in their class.

The Role of Teachers

The conjecture that teachers can do much to curb bullying is not at all trivial. There is a great deal of evidence for the effectiveness of peers in preventing bullying (Kärnä et al., 2011; Salmivalli et al., 1996). But there is also evidence suggesting that teachers might be less effective in this regard. For one thing, they may not be aware of bullying. For example, it has been found that teachers intervene in only 4% of bullying incidents on the playground (Craig & Pepler, 1998) and in only 18% of bullying incidents in the classroom (Atlas & Pepler, 1998). This may be because bullying often takes place on the playground, in hallways, in lunchrooms, and other places where teachers are not around. Teachers may also fail to take action: Even when they were judged to be aware of bullying, they did not intervene in one out of four cases (Atlas & Pepler, 1998). Thus it is no surprise that victims often perceive teachers as unable to protect them (Novick & Isaacs, 2010). Research has also shown that students are concerned that if they report bullying incidents, their reports may be dismissed as unbelievable, or that peers will find out, which could result in reprisals (Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Newman & Murray, 2005; Newman, Murray, & Lussier, 2001; Oliver & Candappa, 2007).

Another possible reason that teachers are ineffective at reducing bullying is that they often do not perceive bullying in the same way as students (Bradshaw, Sawyer, & O'Brennan, 2007). For example, teachers may not identify relational aggression as bullying (Boulton, 1997; Craig, Henderson, & Murphy, 2000), or they may perceive it as being less serious than physical and verbal bullying (Bauman & Del Rio, 2006; Yoon & Kerber, 2003). Teachers also often believe that bullying is part of a normative developmental process, and they expect victims to handle it on their own (Hektner & Swenson, 2012; Kochenderfer-Ladd & Pelletier, 2008; Troop-Gordon & Ladd, 2014).

The Role of the Peer Group

Despite evidence that peers can be effective at reducing bullying (Kärnä et al., 2011; Salmivalli et al., 1996), there is also evidence that peers are often not willing to intervene (Espelage, Green, & Polanin, 2012). In an observational study of playground activity, O'Connell, Pepler, and Craig (1999) found that in half of the bullying episodes, peers watched without intervening. Only in a quarter of the episodes did they help victims, whereas in another quarter of the episodes peers even assisted the bullies. Students often do not support victims because bullying incidents tend to

have multiple witnesses (Salmivalli, 2010) and the likelihood of intervention might be reduced by the classic bystander effect: Help is less likely to be offered when many individuals witness a potentially harmful situation. Students might monitor each other and expect that someone else will intervene, or infer that as the others do nothing, it cannot be so serious. In addition, most bullying consists of attacks that might appear to be relatively "mild," such as verbal abuse (Rivers & Smith, 1994). The harm caused is mostly psychological and thus easy to explain away or construe as "only joking" (Teräsahjo & Salmivalli, 2003). As bullies are often perceived as popular, it also requires a great deal of skill and courage to put a stop to their behavior. Gini, Albiero, Benelli, and Altoe (2008) argued that defending is a risky type of prosocial behavior, because defenders have to confront powerful bullies and their assistants. Rather, it might seem adaptive for students to avoid the company of low-status victims and appear more like the bullies (Juvonen & Galvan, 2008). All this suggests that the potential for peers to curb bullying may have been overestimated in the literature and that teachers' potential may have been underestimated. Below we derive hypotheses for this potentially important role of the teacher in reducing bullying.

The Role of Overarching Goals and Significant Others

To gain a better understanding of what may or may not help curb bullying, it is useful to take a closer look at possible mechanisms. In our previous research on bullying, we found that it is especially useful to look at the role of goals, especially overarching goals. Goal-framing theory (Lindenberg, 2008, 2013) applies the insight from (social) cognition research that mental constructs have to be activated in order to affect behavior, and that goals are particularly important mental constructs in which cognitions and motivations are intricately intertwined (Kruglanski & Köpetz, 2009).

Bullying has been found to be associated with a goal to feel superior (status) without feeling bad as a result of losing the affection of other peers (Juvonen & Galvan, 2008; Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009; Veenstra et al., 2007; Volk, Camilleri, Dane, & Marini, 2012). Goal-framing theory suggests that goals that are focused on the way one feels (like gaining status and affection) can be inhibited by the activation of the overarching goal to act socially appropriately in a particular situation. This "normative" goal makes students focus on relevant norms that apply to the situation they are in. Given a norm that bullying is definitely not the right thing to do, and given strong cues to activate this norm, a feeling of oughtness concerning this antibullying norm arises, causing students to take the norm seriously, react negatively to infractions by others, and keep to the norm themselves. The strength of this oughtness consists in the degree to which the activated overarching goal inhibits conflicting goals (Delgado, Frank, & Phelps, 2005; Lindenberg & Steg, 2007). Thus, given a strongly activated normative goal, the temptation to bully is greatly reduced.

For the normative goal to inhibit bullying, however, strong and ongoing social support is necessary. The normative goal is quite precarious (Keizer, Lindenberg, & Steg, 2008; Lindenberg 2013). In the case of bullying, this precariousness is especially pronounced, as the status goal is strong in potential bullies (Sijtsema et al., 2009), and because peers may provide support for self-

justification of aggressive behavior (Caravita, Sijtsema, Rambaran, & Gini, 2014). Simply reiterating the antibullying norm is thus not enough. These norms need to be strongly and continuously activated, and this takes an active agent. Luckily, in the classroom, this agent is potentially available. Among the most important supports of the normative goal and its activation are *significant others* who stand for situationally relevant norms (Baldwin & Holmes, 1987; Lindenberg, 2013; Shah, 2003). It stands to reason that teachers could be such significant others, and if this is true, those implementing an antibullying intervention would do well to focus on boosting their role as such significant others with regard to an antibullying norm. So far, however, this proposition has not been tested empirically.

What is important in this significant-other effect is that students see teachers as figures of authority who clearly stand up against bullying. For most students, teachers are significant others (Veenstra, Lindenberg, Tinga, & Ormel, 2010), but in the case of bullying, this is only likely to help if the teachers take an active stand against bullying by demonstrating antibullying beliefs, and efficacy as well as effort in the enforcement of rules against bullying. In this way, they are likely to create the required strong and ongoing support by continuously activating the normative goal of potential bullies (thereby also inhibiting the competing goals of status and affection, and thus the temptation to bully) and by activating the normative goal of the bystanders, who are then more likely to support potential victims and, as a by-product, more likely to signal lowering of status and affection for behavior that goes against the norm.

The Present Study

We expected that the level of bullying would be lower when teachers as well as students had a stronger antibullying attitude, had a high degree of efficacy in battling bullying, and put effort into decreasing bullying. In addition, we hypothesized on the basis of arguments derived from goal-framing theory that teachers who clearly and actively stand for antibullying norms are likely to strengthen the normative goal of potential bullies and bystanders. In other words, we expected that the effects of students' own antibullying attitudes, efficacy, and effort to battle bullying would be less closely related to the peer-reported levels of bullying in classes where students perceive their teachers as taking an active stand against bullying. If these expectations bear out, students and teachers can work together at reducing bullying; this can solve the problem of each party shifting responsibility to the other party, in that students expect teachers to ensure their safety against peer victimization, whereas teachers expect students to deal with bullies by themselves (Crothers & Kolbert, 2004).

Method

Sample

We used two waves of data collected for the KiVa antibullying program evaluation (see Kärnä et al., 2011, for more details on the intervention program and sampling procedures). The data used in this study were collected in May 2007 (Grades 3–5, ages 9–11 years) and May 2008 (Grades 4–6, ages 10–12 years). To recruit schools, letters describing the KiVa project were sent in the fall of

2006 to all schools in mainland Finland, including Swedish-speaking schools but excluding schools for special education. The letters included information about the goals and content of KiVa and an enrolment form. Out of 3,444 schools, 279 volunteered to participate in the study. These schools were stratified by province in the mainland of Finland (five provinces), and 78 schools were randomly assigned to intervention and control conditions. To recruit students, their guardians were sent letters containing information and a consent form. In total, 91.7% of the target sample received active consent to participate (Kärnä et al., 2011). Because the KiVa intervention would (theoretically) fundamentally change the associations between our study variables, we focused on students from the control schools only to investigate the “pure” mechanisms before any intervention.

Our final sample included 31 schools, 144 classrooms, and 2,776 students. We had data for all students on peer-reported bullying at both waves. The proportion of missing data for student characteristics was at most 15.2%. Details concerning the percentage of missing data and common missing data patterns in the data set are discussed extensively elsewhere (Kärnä et al., 2011). After multiple imputation (Royston, 2005), we were able to use all 2,776 cases; 49.5% were girls and 50.5% boys. Most students were native Finns (i.e., Caucasian); the proportion of immigrants was 0.8%.

Measures

Students filled out Internet-based questionnaires in the schools' computer labs during regular school hours. The process was administered by the teachers, who were provided with detailed instructions concerning the procedure about 2 weeks prior to the data collection. The teachers received individual passwords for all students who had obtained parental permission to participate in the study. They distributed the passwords to the students, who used them to log in to the questionnaire. The students were assured that their answers would remain strictly confidential and would not be revealed to teachers or parents.

The term *bullying* was defined to the students in the way formulated in the Revised Olweus Bully/Victim Questionnaire (Olweus, 1996); this emphasizes the repetitive nature of bullying and the power imbalance between the bully and the victim. Several examples covering different forms of bullying were given. An explanation of what is not bullying (teasing in a friendly and playful way; fighting between students of equal strength) was also provided. Teachers read the definition out loud, while students could read the same definition from their computer screens. Additionally, to remind the students of the meaning of the term *bullying*, a shortened version of the definition appeared on the upper part of the computer screen while they responded to bullying-related questions.

Outcome variable: Peer-reported bullying. Students were asked to indicate which classmates (a) start bullying, (b) make others join in the bullying, and (c) always find new ways of harassing the victim (Salmivalli et al., 1996). The number of nominations students could make was unlimited. All students in a class could be nominated, including nonparticipating classmates. After the numbers of nominations students received had been added up, proportions were calculated to take differences in the number of respondents per class into account, yielding scores from

0 to 1. Internal consistency (three items) at the pretest and posttest was .91.

Student's attitudes. Students responded on a 5-point Likert-type scale (0 = *disagree completely*, 4 = *agree completely*) to items regarding attitudes to bullying ("I feel bad seeing a child bullied"), victimization ("Kids who are weak are just asking for trouble" [reversed]), and defending ("It irritates me when nobody defends a bullied child"). This scale was based on Rigby and Slee (1991). To derive students' scores on antibullying attitudes, four negatively keyed items were reverse coded. Internal consistency (nine items) was .77 at the pretest and .82 at the posttest.

Students' efficacy. Students were asked to evaluate how easy or difficult it would be for them to defend and support victims. The three items used to measure self-efficacy beliefs for defending behavior (Pöyhönen, Juvonen, & Salmivalli, 2010) were (a) trying to make others stop bullying, (b) comforting the bullied person or encouraging him or her to report the bullying to the teacher, and (c) asking others to stop bullying or saying that bullying is stupid. Students responded on a 4-point scale (0 = *very difficult*, 3 = *very easy*). Internal consistency (three items) was .69 at the pretest and .79 at the posttest.

Students' effort. To measure students' effort to decrease bullying, students were asked to indicate which classmates (a) comfort victims or encourage them to tell the teacher about bullying, (b) tell others to stop bullying, and (c) try to make others stop bullying. The number of nominations students could make was unlimited. After the numbers of nominations students received had been added up, proportions were calculated to take differences in the number of respondents per class into account, yielding scores from 0 to 1. This scale was developed by Salmivalli et al. (1996). Internal consistencies (three items) at the pretest and posttest were .91 and .93.

Students' perceptions of their teacher's attitudes, efficacy, and effort. Three single items were used to measure students' perceptions of their teachers' (a) attitude toward bullying ("What does your teacher think of bullying?" ranging from 0 = *a good thing* to 4 = *absolutely wrong*), (b) efficacy in decreasing bullying ("How much can the teacher do in order to decrease bullying?" ranging from 0 = *nothing* to 4 = *a great deal*), and (c) effort to decrease bullying ("How much has the teacher done in order to decrease bullying since last autumn?" ranging from 0 = *nothing* to 4 = *a great deal*). The average score of students' perceptions of a teacher was calculated for each of these three measures. On

average, the students' perceptions of teachers were based on the perceptions of 19 students per class, and for that reason were highly reliable. These questions were developed for the purposes of the study.

Analyses

We performed multilevel regression analyses using MLwiN 2.23 (Rasbash, Steele, Browne, & Goldstein, 2012). The multilevel analyses were necessary to control for the nested structure of the data: Two assessments among individuals nested in classrooms within schools (Snijders & Bosker, 2012). Peer-reported bullying was the dependent variable. The predictor variables were at the classroom (students' perceptions of the teacher's attitude, efficacy, and effort) and individual level (students' attitude, efficacy, and effort).

We started the multilevel analyses with a model of the main effects of students' and teacher's attitudes, efficacy, and effort directed at peer-reported bullying. To control for possible composition differences between schools, we controlled for Swedish-language schools (at the school level), grade, class size (both at the class level), age, gender, family breakup, and immigrant status (all at the individual level). In the second model we tested whether or not effects changed over time (from the pretest to the posttest). In the third model, we also included at the individual level interactions between students' and teachers' characteristics.

To facilitate the interpretation of the results of the multilevel regression analyses and to obtain standard errors of the same magnitude, all continuous variables including the dependent variables were *z* standardized ($M = 0$, $SD = 1$) across the whole sample before being entered into the multilevel model.

Results

Table 1 reveals that students scored 3.20 at the pretest and 3.00 at the posttest on antibullying attitudes, on a scale from 0 to 4. Students scored 1.81 and 1.82 on efficacy, on a scale from 0 to 3. The proportion score of students' effort to decrease bullying was .19 at the pretest and .17 at the posttest. According to the students, teachers' antibullying attitudes were 3.39 at the pretest and 3.29 at the posttest. The efficacy of teachers was 2.38 at the pretest and 2.23 at the posttest, and teachers' effort to decrease bullying was 2.37 and 2.26. The teacher variables as perceived by students were

Table 1

Descriptives of and Correlations Among the Study Variables at the Pretest (Above the Diagonal) and Posttest (Below the Diagonal), and Stability Coefficients at the Diagonal

Variable	1	2	3	4	5	6	7	Pretest		Posttest	
								<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1. Attitude children	.48	.21	.28	.12	.12	.09	-.22	3.20	0.66	3.00	0.78
2. Efficacy children	.18	.31	.10	.03	.06	.01	-.03	1.81	0.72	1.82	0.72
3. Effort children	.34	.14	.65	.14	.09	.07	-.36	0.19	0.14	0.17	0.14
4. Attitude teachers	.12	.01	.14	.34	.57	.66	-.06	3.39	0.39	3.29	0.45
5. Efficacy teachers	.09	.06	.08	.65	.43	.67	-.05	2.38	0.46	2.23	0.44
6. Effort teachers	.05	.04	.09	.66	.74	.51	.02	2.37	0.46	2.26	0.50
7. Peer-reported bullying	-.26	-.01	-.32	-.12	-.13	-.07	.76	0.07	0.12	0.07	0.12

Note. The diagonal is in bold. All correlations larger than |.05| are significant at $p < .001$.

all measured on a scale from 0 to 4. The proportion score of bullying was .07 at both assessments.

The bivariate associations between the study variables are shown in Table 1. On the diagonal it is shown that the stability of the variables ranges from .31 for students' efficacy to .76 for peer-reported bullying. The teacher variables correlate from .57 to .74 with each other, indicating that these variables share 32% to 55% of the variance. This is not high enough to indicate multicollinearity.

Main Effects

Table 2 shows the results of the multilevel analyses with respect to the relation between peer-reported bullying and students' efficacy, and effort to decrease bullying as well as students' perceptions of their teachers' attitude, efficacy, and effort. The findings reveal that the stronger students' antibullying attitudes, the less they were reported by peers as bullies ($b = -0.053$). Also, students' effort to decrease bullying was

related to lower levels of peer-reported bullying ($b = -0.217$). For the students' perceptions of their teachers, we found that teachers' perceived efficacy (which correlates highly with their antibullying attitudes) was related to a lower level of peer-reported bullying ($b = -0.076$). Teachers' effort to decrease bullying, however, was related to a higher level of peer-reported bullying ($b = 0.051$).

Modeling Change

In the second model in Table 2 we tested whether or not effects changed over time. The only change effect we found was for teachers' effort to decrease bullying. Teachers' effort at the pretest was positively related ($b = 0.088$) to peer-reported bullying at the pretest, but it was related to a lower level of peer-reported bullying at the posttest ($b = 0.088 - 0.119 = -0.031$). For all other characteristics, we found no difference between the effect at the pretest and the effect over time.

Table 2
Multilevel Analyses: Fixed and Random Effects for Peer-Reported Bullying ($N = 31$ Schools, 144 Classrooms, and 2,776 Children)

Variable	Main-effects model	Change model	Interactions model
Fixed part			
Students'			
Attitude	-.053 (.011)***	-.055 (.011)***	-.051 (.011)***
Efficacy	-.006 (.009)	-.006 (.009)	-.006 (.009)
Effort	-.217 (.014)***	-.216 (.014)***	-.217 (.014)***
Students' perceptions of teachers'			
Attitude	.008 (.023)	-.003 (.023)	-.003 (.023)
Efficacy	-.076 (.024)**	-.060 (.024)*	-.054 (.024)*
Effort	.051 (.026)***	.088 (.028)***	.096 (.028)***
Change at postassessment			
Teacher's effort		-.119 (.030)***	-.128 (.030)***
Interactions			
Teachers' Effort \times Students' Attitude			.039 (.009)***
Teachers' Efficacy \times Students' Effort			.034 (.013)**
Teachers' Effort \times Students' Effort			-.056 (.013)***
Random part for intercept			
School variance	.022 (.009)*	.020 (.008)*	.022 (.009)*
Class variance	.022 (.008)**	.021 (.008)**	.023 (.008)**
Individual variance	.758 (.021)***	.757 (.021)***	.750 (.021)***
Random part for change			
School variance	.000 (.000)	.000 (.000)	.000 (.000)
Class variance	.104 (.015)***	.093 (.014)***	.097 (.014)***
Individual variance	.404 (.011)***	.402 (.011)***	.399 (.011)***
Intercept-change covariance			
School variance	.000 (.000)	.000 (.000)	.000 (.000)
Class variance	-.025 (.008)**	-.023 (.008)**	-.025 (.008)**
Individual variance	-.211 (.012)***	-.210 (.012)***	-.207 (.011)***
Decrease in deviance (df)	295.0 (6)***	29.4 (2)***	30.9 (3)***

Note. Standard deviations are in parentheses except where noted. In all models, we also controlled for Swedish-language schools, grade (both at the school level), class size (at the class level), age, gender, family breakup, and immigrant status (all at the individual level). The effect for Grade 3 students differed over time, whereas all other control variables did not vary. The predictor variables were at the classroom (students' perceptions of the teachers' attitude, efficacy, and effort) and individual level (students' attitude, efficacy, and effort).

* $p < .05$. ** $p < .01$. *** $p < .001$.

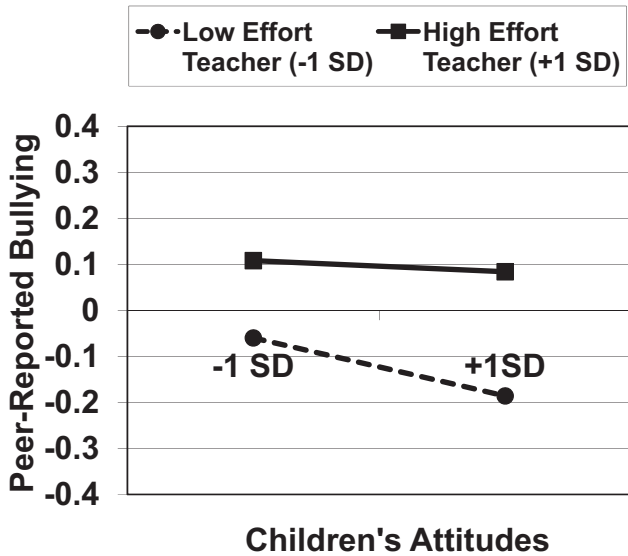


Figure 1. Graphical presentation of the interaction between students' antibullying attitudes and students' perceptions of their teachers' effort in relation to peer-reported bullying.

Interaction Effects

We next tested interactions between teachers' and students' characteristics. Three out of the nine interactions were significant (using the Holm-Bonferroni method to correct for multiple testing). The interactions are depicted in several figures and are based on the interaction model shown in Table 2. We see in Figure 1 that students' antibullying attitude was less closely related to peer-reported bullying in classes where the teachers exerted a great deal

of effort to stop bullying ($b = -0.012, ns$), compared with classes in which teachers exerted a low level of effort ($b = -0.090, p < .001$).

The effect of students' effort to decrease bullying on peer-reported bullying was stronger in classes where the teachers had a low level of efficacy ($b = -0.251, p < .001$), compared with classes in which teachers had a high level of efficacy ($b = -0.183, p < .001$; see Figure 2). At low levels of students' effort (-1 standard deviation), teacher efficacy appeared to have a dampening effect on peer-reported bullying. By contrast, when teachers were low on efficacy (-1 standard deviation) and students' effort was also low (-1 standard deviation), peer-reported bullying was at its highest levels; when teachers' efficacy was strong (1 standard deviation), bullying was lower. At higher levels of students' anti-bullying effort (1 standard deviation), teachers' efficacy made no difference to peer-reported bullying.

Contrary to our expectations, Figure 3 shows that the effect of students' effort on peer-reported bullying was stronger in classes where the teachers exerted a high level of effort to decrease bullying ($b = -0.273, p < .001$) than in classes where the teachers exerted a low level of effort ($b = -0.161, p < .001$).

The explained variance in peer-reported bullying in the full model in Table 2 was 20.6% at the individual level and 1.6% at the class level. The decrease in deviance was significant for each model. The intercept-change covariance can be used to calculate the correlation at the class and student level: These correlations are $-.16$ at the class level and $-.38$ at the student level, indicating that a high level of peer-reported bullying at the pretest is associated with a change toward less bullying over time (regression to the mean).

Discussion

The social context of bullies and victims has increasingly been the target of antibullying interventions (Polanin et al., 2012; Smith

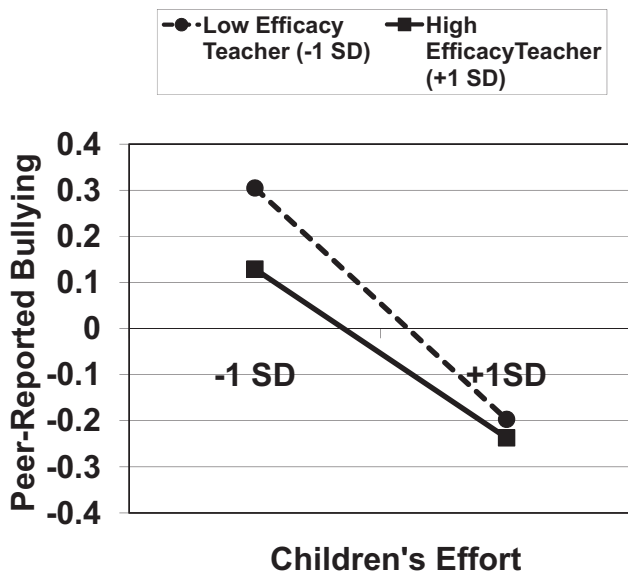


Figure 2. Graphical presentation of the interaction between students' effort and students' perceptions of their teachers' efficacy in relation to peer-reported bullying.

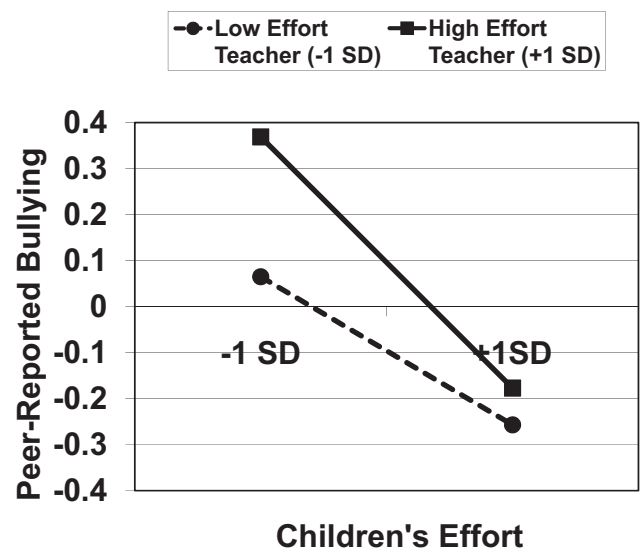


Figure 3. Graphical presentation of the interaction between students' effort and students' perceptions of their teachers' effort in relation to peer-reported bullying.

et al., 2004). Peers are an important target, but how important is it to make teachers take an antibullying stand? On the basis of goal-framing theory (Lindenberg, 2008, 2013), we predicted that it was possible for teachers to be significant others who are able to strengthen antibullying norms and their activation in students, and in that way help inhibit goals that encourage bullying. We tested the direct implications of this conjecture by examining how students' perceptions of their teachers antibullying stand is related to peer-reported bullying and how these perceptions interact with students own antibullying attitudes, efficacy, and effort to decrease bullying in classrooms. Even though goals were not directly measured in this study, we were able to test the implications of the theory.

Understanding how teachers' responses to bullying (in the eyes of students) affect the likelihood of bullying occurring may be critical for the development and successful implementation of a whole-school antibullying prevention program. For students, the attitudes teachers display can signal ways to act appropriately. If teachers are seen to be efficacious, they are likely to prevent bullying (Novick & Isaacs, 2010; Yoon, 2004). Teachers' efficacy correlates highly with their antibullying attitudes, and we found that it was indeed related to a lower level of peer-reported bullying. Teachers' effort to reduce bullying, however, was cross-sectionally related to a higher level of peer-reported bullying, but over time it was related to a reduction in peer-reported bullying.

If teachers exert effort to decrease bullying, they can also help students to keep up the antibullying classroom norm by strengthening their goal to act appropriately. In classes where students clearly perceived that their teachers exerted a great deal of effort to battle it, students' own antibullying attitude was less strongly related to bullying. In addition, we found that students' own effort to decrease bullying was more strongly related to peer-reported bullying in classes where students perceived teachers to have low efficacy and to exert a great deal of effort to stop it. The finding for teachers' efficacy is in line with the idea that students' characteristics are less closely related to bullying in classes where teachers strengthen the goal to act appropriately concerning the antibullying norm. The interaction between teachers' and students' efforts did not work as expected in this study. Yet, it stands to reason that teachers put in more effort to reduce bullying where there is (at first) more bullying, and that later this effort leads to a reduction in bullying. Our findings are in line with this interpretation. They suggest that teachers' effort to reduce bullying is a response to more bullying (see also Totura et al., 2009) and that over time teachers' effort is related to a reduction in bullying.

These results imply that with regard to bullying, the ideal class for students is a class in which the teacher is perceived by the students as having a high degree of efficacy in battling bullying and does not have to exert much effort to solve bullying incidents. In such classes not only the students who are against bullying (in terms of attitude and effort) show relatively low levels of bullying, but also those who are in favor of it. This is exactly what one would expect from a significant-other effect of teachers.

Strengths and Limitations

We used data from fourth- to sixth-graders from control schools. Future studies are needed to reveal whether these findings can be replicated among younger and older students in Finland. It is also

important to replicate the findings in other countries. This study has several strengths, including the use of a proper sample size, multimethod and multi-informant assessments, and proven valid and reliable measures. Our study also has some limitations. The lack of a direct measure of teacher characteristics is of concern. This limitation may not be so grave because when it comes to significant-other effects, there is also much to say for using students' perceptions of teacher characteristics. It would have been ideal to have direct observations of actual bullying, in addition to peer reports of bullying. Given the large number and geographic dispersion of the schools, it was, however, impossible to collect such observations. Another limitation is that the descriptive findings of this study can only be generalized to schools that are motivated to implement an antibullying program. Nowadays more than 90% of schools in Finland are registered as KiVa schools. But the control schools in our study were pioneering schools that wanted to implement the program early on. This motivation to participate in the program is not likely to be a disturbing factor, however, because the focus of this study was not on descriptives but on the role of teachers in bullying.

In sum, our findings revealed that the level of bullying was lowest in classes in which the teacher (in the eyes of students) showed high efficacy in battling bullying and low effort in reducing bullying. Teachers' effort was related to a reduction in bullying over time. In classes where teachers were not efficacious and had to exert a great deal of effort to stop bullying, students with probullying attitudes and without antibullying effort had the highest level of bullying. With teachers as significant others standing up against bullying, all persons in a classroom are made responsible for a climate in which bullying is not accepted and in which bullying is associated with low status and low affection. Our results show that students and teachers can work together at reducing bullying; this can solve the problem of each party shifting responsibility to the other party, in that students expect teachers to ensure their safety against peer victimization, whereas teachers expect students to deal with bullies by themselves (Crothers & Kolbert, 2004). For this cooperative solution to happen, teachers need to be seen as important targets of antibullying interventions.

References

- Anderson, C. M., & Kincaid, D. (2005). Applying behavior analysis to school violence and discipline problems: Schoolwide positive behavior support. *Behavior Analyst, 28*, 49–63.
- Atlas, R. S., & Pepler, D. J. (1998). Observations of bullying in the classroom. *Journal of Educational Research, 92*, 86–99. doi:10.1080/00220679809597580
- Baldwin, M. W., & Holmes, J. G. (1987). Salient private audiences and awareness of the self. *Journal of Personality and Social Psychology, 52*, 1087–1098. doi:10.1037/0022-3514.52.6.1087
- Bauman, S., & Del Rio, A. (2006). Preservice teachers' responses to bullying scenarios: Comparing physical, verbal, and relational bullying. *Journal of Educational Psychology, 98*, 219–231. doi:10.1037/0022-0663.98.1.219
- Boulton, M. J. (1997). Teachers' views on bullying: Definitions, attitudes and ability to cope. *British Journal of Educational Psychology, 67*, 223–233. doi:10.1111/j.2044-8279.1997.tb01239.x
- Bradshaw, C. P., Sawyer, A. L., & O'Brennan, L. M. (2007). Bullying and peer victimization at school: Perceptual differences between students and school staff. *School Psychology Review, 36*, 361–382.

- Caravita, S. C. S., Sijtsema, J. J., Rambaran, A. J., & Gini, G. (2014). Peer influences on moral disengagement in late childhood and early adolescence. *Journal of Youth and Adolescence, 43*, 193–207. doi:10.1007/s10964-013-9953-1
- Craig, W. M., Henderson, K., & Murphy, J. G. (2000). Prospective teachers' attitudes toward bullying and victimization. *School Psychology International, 21*, 5–21. doi:10.1177/0143034300211001
- Craig, W. M., & Pepler, D. J. (1998). Observations of bullying and victimization in the school yard. *Canadian Journal of School Psychology, 13*, 41–59. doi:10.1177/082957359801300205
- Crothers, L. M., & Kolbert, J. B. (2004). Comparing middle school teachers' and students' views on bullying and anti-bullying interventions. *Journal of School Violence, 3*, 17–32. doi:10.1300/J202v03n01_03
- Delgado, M. R., Frank, R. H., & Phelps, E. A. (2005). Perceptions of moral character modulate the neural systems of reward during the trust game. *Nature Neuroscience, 8*, 1611–1618. doi:10.1038/nn1575
- Espelage, D., Green, H., & Polanin, J. (2012). Willingness to intervene in bullying episodes among middle school students: Individual and peer-group influences. *Journal of Early Adolescence, 32*, 776–801. doi:10.1177/0272431611423017
- Fekkes, M., Pijpers, F. I. M., & Verloove-Vanhorick, S. P. (2005). Bullying: Who does what, when and where? Involvement of children, teachers and parents in bullying behavior. *Health Education Research, 20*, 81–91. doi:10.1093/her/cyg100
- Fox, C. L., & Boulton, M. J. (2003). Evaluating the effectiveness of a social skills training (SST) programme for victims of bullying. *Educational Research, 45*, 231–247. doi:10.1080/0013188032000137238
- Gini, G., Albiero, P., Benelli, B., & Altoe, G. (2008). Determinants of adolescents' active defending and passive bystander behavior in bullying. *Journal of Adolescence, 31*, 93–105. doi:10.1016/j.adolescence.2007.05.002
- Hektner, J. M., & Swenson, C. A. (2012). Links from teacher beliefs to peer victimization and bystander intervention tests of mediating processes. *Journal of Early Adolescence, 32*, 516–536. doi:10.1177/0272431611402502
- Juvonen, J., & Galvan, A. (2008). Peer influence in involuntary social groups: Lessons from research on bullying. In M. J. Prinstein & K. A. Dodge (Eds.), *Understanding peer influence in children and adolescents* (pp. 225–244). New York, NY: Guilford Press.
- Kärnä, A., Voeten, M., Little, T. D., Poskiparta, E., Kaljonen, A., & Salmivalli, C. (2011). A large-scale evaluation of the KiVa antibullying program: Grade 4–6. *Child Development, 82*, 311–330. doi:10.1111/j.1467-8624.2010.01557.x
- Keizer, K., Lindenberg, S., & Steg, L. (2008). The spreading of disorder. *Science, 322*, 1681–1685. doi:10.1126/science.1161405
- Kochenderfer-Ladd, B., & Pelletier, M. E. (2008). Teachers' views and beliefs about bullying: Influences on classroom management strategies and students' coping with peer victimization. *Journal of School Psychology, 46*, 431–453. doi:10.1016/j.jsp.2007.07.005
- Kruglanski, A. W., & Köpetz, C. (2009). What is so special (and non-special) about goals? A view from the cognitive perspective. In G. B. Moskowitz & H. Grant (Eds.), *The psychology of goals* (pp. 27–55). New York, NY: Guilford Press.
- Lindenberg, S. (2008). Social rationality, semi-modularity and goal-framing: What is it all about? *Analyse & Kritik, 30*, 669–687.
- Lindenberg, S. (2013). Social rationality, self-regulation, and well-being: The regulatory significance of needs, goals, and the self. In R. Wittek, T. A. B. Snijders, & V. Nee (Eds.), *Handbook of rational choice social research* (pp. 72–112). Stanford, CA: Stanford University Press.
- Lindenberg, S., & Steg, L. (2007). Normative, gain and hedonic goal frames guiding environmental behavior. *Journal of Social Issues, 63*, 117–137. doi:10.1111/j.1540-4560.2007.00499.x
- Newman, R. S., & Murray, B. J. (2005). How students and teachers view the seriousness of peer harassment: When is it appropriate to seek help? *Journal of Educational Psychology, 97*, 347–365. doi:10.1037/0022-0663.97.3.347
- Newman, R. S., Murray, B., & Lussier, C. (2001). Confrontation with aggressive peers at school: Students' reluctance to seek help from the teacher. *Journal of Educational Psychology, 93*, 398–410. doi:10.1037/0022-0663.93.2.398
- Novick, R. M., & Isaacs, J. (2010). Telling is compelling: The impact of student reports of bullying on teacher intervention. *Educational Psychology, 30*, 283–296. doi:10.1080/01443410903573123
- O'Connell, P., Pepler, D., & Craig, W. (1999). Peer involvement in bullying: Insights and challenges for intervention. *Journal of Adolescence, 22*, 437–452. doi:10.1006/jado.1999.0238
- Oliver, C., & Candappa, M. (2007). Bullying and the politics of "telling." *Oxford Review of Education, 33*, 71–86. doi:10.1080/03054980601094594
- Olweus, D. (1996). *The Revised Olweus Bully/Victim Questionnaire*. Bergen, Norway: University of Bergen.
- Pikas, A. (2002). New developments of the shared concern method. *School Psychology International, 23*, 307–326. doi:10.1177/0143034302023003234
- Polanin, J. R., Espelage, D. L., & Pigott, T. D. (2012). A meta-analysis of school-based bullying prevention programs' effects on bystander intervention behavior. *School Psychology Review, 41*, 47–65.
- Pöyhönen, V., Juvonen, J., & Salmivalli, C. (2010). What does it take to stand up for the victim of bullying? The interplay between personal and social factors. *Merrill-Palmer Quarterly, 56*, 143–163. doi:10.1353/mpq.0.0046
- Rasbash, J., Steele, F., Browne, W. J., & Goldstein, H. (2012). *A user's guide to MLwiN*. Bristol, England: Centre for Multilevel Modelling, University of Bristol.
- Rigby, K., & Slee, P. T. (1991). Bullying among Australian schoolchildren: Reported behavior and attitudes toward victims. *Journal of Social Psychology, 131*, 615–627. doi:10.1080/00224545.1991.9924646
- Rivers, I., & Smith, P. K. (1994). Types of bullying behaviour and their correlates. *Aggressive Behavior, 20*, 359–368. doi:10.1002/1098-2337(1994)20:5<359::AID-AB2480200503>3.0.CO;2-J
- Royston, P. (2005). Multiple imputation of missing values: Update. *Stata Journal, 5*, 1–14.
- Salmivalli, C. (2010). Bullying and the peer group: A review. *Aggression and Violent Behavior, 15*, 112–120. doi:10.1016/j.avb.2009.08.007
- Salmivalli, C., Lagerspetz, K., Björkqvist, K., Osterman, K., & Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior, 22*, 1–15. doi:10.1002/(SICI)1098-2337(1996)22:1<1::AID-AB1>3.0.CO;2-T
- Shah, J. (2003). The motivational looking glass: How significant others implicitly affect goal appraisals. *Journal of Personality and Social Psychology, 85*, 424–439. doi:10.1037/0022-3514.85.3.424
- Sijtsema, J. J., Veenstra, R., Lindenberg, S., & Salmivalli, C. (2009). Empirical test of bullies' status goals: Assessing direct goals, aggression, and prestige. *Aggressive Behavior, 35*, 57–67. doi:10.1002/ab.20282
- Smith, P. K., Pepler, D., & Rigby, K. (Eds.). (2004). *Bullying in schools: How successful can interventions be?* Cambridge, England: Cambridge University Press. doi:10.1017/CBO9780511584466
- Snijders, T. A. B., & Bosker, R. J. (2012). *Multilevel analysis: An introduction to basic and advanced multilevel modeling* (2nd ed.). Los Angeles, CA: Sage.
- Teräsahjo, T., & Salmivalli, C. (2003). "She is not actually bullied": The discourse of harassment in student groups. *Aggressive Behavior, 29*, 134–154. doi:10.1002/ab.10045
- Totura, C. M. W., MacKinnon-Lewis, C., Gesten, E. L., Gadd, R., Divine, K. P., Dunham, S., & Kamboukos, D. (2009). Bullying and victimization

among boys and girls in middle school: The influence of perceived family and school contexts. *Journal of Early Adolescence*, 29, 571–609. doi:10.1177/0272431608324190

Troop-Gordon, W., & Ladd, G. W. (2014). Teachers' victimization-related beliefs and strategies: Associations with students' aggressive behavior and peer victimization. *Journal of Abnormal Child Psychology*. Advance online publication. doi:10.1007/s10802-013-9840-y

Veenstra, R., Lindenberg, S., Tinga, F., & Ormel, J. (2010). Truancy in late elementary and early secondary education: The influence of social bonds and self-control. The TRAILS study. *International Journal of Behavioral Development*, 34, 302–310. doi:10.1177/0165025409347987

Veenstra, R., Lindenberg, S., Zijlstra, B. J. H., De Winter, A. F., Verhulst, F. C., & Ormel, J. (2007). The dyadic nature of bullying and victimization: Testing a dual perspective theory. *Child Development*, 78, 1843–1854. doi:10.1111/j.1467-8624.2007.01102.x

Volk, A. A., Camilleri, J. A., Dane, A. V., & Marini, Z. A. (2012). Is adolescent bullying an evolutionary adaptation? *Aggressive Behavior*, 38, 222–238. doi:10.1002/ab.21418

Yoon, J. S. (2004). Predicting teacher interventions in bullying situations. *Education and Treatment of Children*, 27, 37–45.

Yoon, J. S., & Kerber, K. (2003). Bullying: Elementary teachers' attitudes and intervention strategies. *Research in Education*, 69, 27–35. doi:10.7227/RIE.69.3

Received July 11, 2012

Revision received December 18, 2013

Accepted January 17, 2014 ■

Statement of Ownership, Management, and Circulation for Journal of Educational Psychology. Includes fields for publication title, issue frequency, circulation data, and publisher information.

Statement of Ownership, Management, and Circulation for Journal of Educational Psychology. Includes a detailed table for circulation data by category and publication type.

Statement of Ownership, Management, and Circulation for Journal of Educational Psychology. Includes a detailed table for circulation data and a section for publication of statements of ownership.

This document is copyrighted by the American Psychological Association or one of its allied publishers. This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.