

REFERENCES

- Abrams, D., Randsley de Moura, G., Hutchison, P., & Viki, G. T. (2005). When bad becomes good (and vice versa): Why social exclusion is not based on difference. In D. Abrams, M. A. Hogg, & J. M. Marques (Eds.), *Social exclusion and inclusion* (pp. 161–191). Hove, UK: Psychology Press.
- Abrams, D., Rutland, A., & Cameron, L. (2003). The development of subjective group dynamics: Children's judgments of normative and deviant in-group and out-group individuals. *Child Development, 74*, 1840–1856.
- Allport, G. (1954). *The nature of prejudice*. Boston: Beacon Press.
- Atria, M., Strohmeier, D., & Spiel, C. (2007). The relevance of the school class as social unit for the prevalence of bullying and victimization. *European Journal of Developmental Psychology, 4*, 372–387.
- Dollard, J. (1980). *Frustration and aggression*. Westport, CT: Greenwood.
- Gemmill, G. (1989). The dynamics of scapegoating in small groups. *Small Group Behavior, 20*, 406–418.
- George, T. P., & Hartmann, D. P. (1996). Friendship networks of unpopular, average, and popular children. *Child Development, 67*, 2301–2316.
- Gest, S. D., Graham-Bermann, S. A., & Hartup, W. W. (2001). Peer experience: Common and unique features of number of friendships, social network centrality, and sociometric status. *Social Development, 10*, 23–40.
- Gifford-Smith, M. E., & Brownell, C. A. (2003). Childhood peer relationships: Social acceptance, friendships, and peer networks. *Journal of School Psychology, 41*, 235–284.
- Jackson, M. F., Barth, J. M., Powell, N., & Lochman, J. E. (2006). Classroom contextual effects of race on children's peer nominations. *Child Development, 77*, 1325–1337.
- Juvonen, J., Graham, S., & Schuster, M. A. (2003). Bullying among young adolescents: The strong, the weak, and the troubled. *Pediatrics, 112*, 1231–1237.
- Mahdavi, D., & Smith, P. K. (2007). Individual risk factors or group dynamics? An investigation of the scapegoat hypothesis of victimization in school classes. *European Journal of Developmental Psychology, 4*, 353–371.
- McGlothlin, H., & Killen, M. (2006). Intergroup attitudes of European American children attending ethnically homogeneous schools. *Child Development, 77*, 1375–1386.
- Mouttapa, M., Vaete, T., Gallaher, P., Rohrbach, L. A., & Unger, J. B. (2004). Social network predictors of bullying and victimization. *Adolescence, 39*, 315–335.
- Pellegrini, A., & Blatchford, P. (2000). *The child at school: Interactions with peers and teachers*. London: Arnold.
- Schuster, B. (1999). Outsiders at school: The prevalence of bullying and its relation with social status. *Group Processes and Intergroup Relations, 2*, 175–190.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Blackwell.

The school class as a unit for prevalence estimations: Methodological variations, conceptual clarifications, and implications for intervention and theory testing

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The present article discusses the data source (self- as opposed to peer assessments) as one of the factors producing substantial variation in estimations of prevalence rates of peer victimization. It is argued that self-report data produce higher variation in prevalence estimations than peer reports. It is suggested that peer data may be preferable for research purposes, whereas self-reports may be more useful for intervention efforts. Second, the need for differentiating “discipline problems” and “genuine peer victimization” on a conceptual level is stressed. Third, it is outlined that this differentiation will lead to different intervention approaches (i.e., direct ones for discipline problems and more indirect ones for genuine peer victimization). Finally, more direct approaches to theory testing are called for. In doing this, the present article comments on data by Atria et al. (this issue) as well as questions raised by the analysis of Mahdavi and Smith (this issue).

In diverse fields of psychology such as educational, organizational, clinical or social, the phenomenon has been observed that some individuals are consistently excluded, and even harassed, in their social groups (see, e.g., Williams, Forgas, & Von Hippel, 2005). In pioneering research, Olweus (1978) referred to this phenomenon as “bullying” (or, in early works, borrowed from Konrad Lorenz, as “mobning/mobbing”). This research was taken up also under broader headings such as peer harassment or (peer) victimization.

From early on, a disproportionately large number of studies addressed descriptive aspects, such as the forms bullying may take and frequency

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estimations. Despite the huge number of studies on "incidence" or more precisely, "prevalence" rates of bullying, no consensus emerged as to how often the phenomenon may indeed occur. An early review of these studies (Schuster, 1996) already revealed variations in prevalence estimations ranging from around 3% up to almost 90%! Not surprisingly, a closer inspection of this variability suggests that it is due to methodological diversity and conceptual disparity.

In the present paper, I will discuss the data source (self- as opposed to peer assessments) as one of the factors producing such a variability in prevalence estimations. I will first illustrate the problems inherent in self-reports, and demonstrate this point with the help of the studies reported by Atria, Strohmeier, and Spiel (this issue). I then turn to the data source "peer assessments" and discuss in what way they reveal systematic patterns on a school-class level. Thereby, I will again address data by Atria et al. (this issue) as well as questions raised by the analysis of Mahdavi and Smith (this issue).

Moving beyond the question of the exact number of victims identified on a school-class level, I turn to conceptual issues and suggest the need to differentiate precisely between "discipline problems" and "genuine peer victimization" in the Olweus sense, and stress the need to carefully take into account all of the definitional criteria in the empirical operationalizations.

Finally, I will address implications of the present discussion for intervention as well as theory testing.

METHODOLOGICAL VARIATIONS: ADVANTAGES AND DISADVANTAGES OF SELF-REPORTS AND SYSTEMATIC PATTERNS REVEALED BY PEER REPORTS

Self-reports

In addressing the question of frequencies of bullying, many studies, following the lead of Olweus' original research, relied, as many do to the present day, on self-reports.

Self-report data have in fact several important advantages: (1) When studying reactions in the victim, and likewise for therapy and intervention efforts, it may be more important whether a victim *feels*, rather than whether he or she *is*, being harassed. In fact, there exist subgroups of individuals who regard themselves as victims even though no one else does ("sensitives") contrasted to a subgroup of students who do not name themselves as victims even though there is consensus among peers that they are one ("defensives"; see Schuster, 1997, 1999a; or "deniers", see Juvonen, Nishina, & Graham, 2001). In addition (2) self-reports have for a long time been the common tool, thus comparisons across studies are facilitated. And finally (3) self-reports are easy to obtain, and they can be administered without

concern of violating ethical standards such as ensuring anonymity. Thus, they free the researcher from organizational work and major obstacles.

Despite these advantages, this data source also has shortcomings. For research purposes, it is problematic that self-reports tend to produce a huge variation in results. This not only held true for the studies considered in the review by Schuster (1996), but also for more recent studies. Illustrative of this point are the studies by Atria, Strohmeier, and Spiel (this issue), who report variations from 2.6% to 19.2% (see column "Prevalence victims" in Table 3 in Atria et al., this issue) when using this data source.

Given such variations between studies (as well as within studies when different methods are employed, see, e.g., Coyne, Smith-Lee Chong, Seigne, & Randall, 2003, reporting rates between 3.9% and 39.6%), I suggested (Schuster, 1997, 1999a) that it may be helpful to use peer-data instead of, or in addition to, self-report data, to gain a more accurate estimation of prevalence rates.

Peer-reports

A major obstacle for gathering peer data is the problem of confidentiality and anonymity. In order to ensure anonymous responses but still be able to obtain nominations of particular children and relate these to the additional data collected, I came up with the following procedure, which also allowed the grouping of children according to particular variables determined beforehand, in this case, it was the sex of the child (see Schuster, 1999a).

Specifically, all the girls of the class could pick a name of a city from a list on an overhead, whereas the boys could pick a name of a country. The overhead with the handwritten name of the child next to the city/country name (e.g., Marie - Munich; Michael - Germany) remained there for the entire time of data collection, so that participants could fill in the respective code names whenever suitable.

This procedure can be adapted for every set of predetermined variables. For instance, one could ask children of one ethnic group to pick from cities of one particular country, whereas children of other ethnic groups could be asked to pick names of cities of a different foreign country. As trivial as this solution may sound, it opens a door by circumventing a major barrier for collecting peer data, which so far has prevented many researchers from using this data source.

Given this procedure, it was possible to calculate the number of peers who named the same person as a victim—according to an everyday description of the Olweus definition stressing the major characteristics such as repetition, duration, and imbalance of strength.

Unpredictably, a systematic pattern emerged. In the first study with a very homogenous population, there was no single class in which there was

no child identified as victim, according to the criterion that he/she had to be nominated by at least five peers as victim. Of equal significance, the number of victims per class was limited to 1 or 2, not more.

Both of these findings invite interesting speculations. The limitation to 1 or 2 victims enables the entire class to negotiate the attributional reputation that it is the victim's own fault (see Schuster, 2001, for an empirical follow-up of this speculation), and the fact that in Study 1, all classes had a victim invites (and invited in Schuster, 1999a, post hoc) speculations about the necessity of "scapegoats" in social groups.

Attention should also be drawn to a further aspect of the data. Variation between classes did exist with respect to the *amount of consensus* of these choices. Table 2 in Schuster (1999a) reveals that, for instance, in class #1, one student was nominated as victimized by five peers; his fellow victim in class, however, was nominated 14 times.

The varying consensus of nominations may give a first (indirect) hint that what may differ between cases/classes is the amount and severity of victimization suffered. And this varying *severity* of victimization experiences may account for the variance discovered when using self-report data.

Given the unpredictedness of the systematic finding of 1 or 2 peer-identified victims per class, a second study published in Schuster (1999a) explored these phenomena in an entirely different school with a far more heterogeneous population (which for Munich is quite heterogeneous, e.g., with respect to ethnic mix. Yet, in inner cities in the UK or USA, still more heterogeneity should be found). The pattern, then, was no longer as neatly clear cut as in Study 1, but the basic trend was still there, i.e., in *most* of the classes, 1 or 2 victims were identified, even though now classes with up to 4 victims emerged as well as ones without a target named by at least 5 peers.

The basic pattern of findings in Study 2 (Schuster, 1999a) is mirrored in the study "Secondary schools – a (grades 6 and 7)" by Atria et al. (this issue). (The remaining studies by Atria et al. all used self-reports.) Even though the Atria et al. study "Secondary schools – a, grades 6 and 7" had important methodological differences to the Study 2 by Schuster (e.g., different wordings in the definition of bullying, and an additional focus on acting as a bully oneself, providing a different framing of the phenomenon), basically the data can be read as replicating that the *majority* of classes have their victims, and *limit* the number of those *to just a few*. In cases where there were more than 1 or 2 victims, it was not dramatically many more. And with this procedure, no victim per class was identified in only 5 out of 28 classes.

Similarly, when using a peer-nomination procedure that was very similar to the one used by Schuster (1999a), this held true for their Studies 1 and 2, the data reported by Mahdavi and Smith (this issue) reveal in my eyes the same pattern of findings. Even though their schools served a much more deprived population, and heterogeneity (e.g., regarding ethnic mix)

was far greater, they still found that the majority of classes produced 1 or 2 victims.

Specifically, in their Study 1, out of 14 classes, 9 fall into this category, and only 3 do not identify a victim named by at least 5 peers. It is quite conceivable that this criterion was failed by just 1 nomination. On the other side, only 2 (out of 14) classes had more than 1 or 2 victims, equivalent to the finding of the Schuster Study 2, where 4 out of 18 classes had more than 2 students named consensually.

Less clear cut, but still keeping with the basic trend, in Mahdavi and Smith's Study 2, the category with the highest number was the "1 or 2 victim" category, i.e., in 18 of 37 classes. In this study, a fairly high proportion of classes with no victims (i.e., 8) or more than 2 victims (i.e., 11) was also found.

Why does Study 2 (by Mahdavi & Smith) produce a slightly less clear cut pattern as compared to their Study 1? Mahdavi and Smith's Study 2 differs in one important respect from Mahdavi and Smith's Study 1 and Schuster's Study 1. In Mahdavi and Smith's Study 2, students from primary as well as secondary schools were included, suggesting that there were classes that had only recently before formed. For these classes, the dynamics had not yet had enough time to unfold. Nevertheless, here too, one could summarize the data as indicating that the *majority* of classes *focus on a limited subset of targets* as victims.

In addition, it would be interesting to analyse the choices in those classes who identified no victim or more than 2. Did they still replicate the finding of Schuster (1999a) that the nominations were highly consensual and distinct, or did they produce a great diversity of different names? My guess would be the former.

Conclusions with respect to methodological variations: The role of the data source

So, what do these three sets of studies (Schuster, 1999a; Atria et al., this issue; Mahdavi & Smith, Studies 1 and 2, this issue) together tell us so far? I suggest the following.

First, self-reports produce huge variability, whereas peer reports narrow the range of prevalence rates markedly. Unless the focus is on psychological reactions in the affected child him/herself, it seems advisable to (additionally) collect peer data to get the best estimate of prevalence. As shown in Schuster (1999a), peer data can be trusted because they are highly distinct and highly consensual, and also because they correlate highly with teacher assessments.

Second, peer reports suggest that in the *majority* of classes there are victims of peer harassment, and *typically not too many* of them—even though the exact numbers may exceed 2 students, as was the case in class

#15 of Study 2 in Schuster (1999a), which had 4 victims. Still, the high consensus and distinctiveness of peer reports suggests that even if the number is greater than 2, it should not be many more (e.g., it seems very unlikely that, say, 10 students would be identified as victims).

Third, the discussion has been very helpful in drawing attention to the need to be more careful in considering the *severity* of bullying. The amount of consensus in victim nominations may be indicative of the obviousness of the victimization, but possibly also very indirectly indicative of the amount, or severity, thereof. More severe victimization is likely to produce more negative consequences in the victim, yet this variable has not received much attention so far.

CONCEPTUAL CLARIFICATIONS: DIFFERENTIATING BULLYING AS A "DISCIPLINE PROBLEM" AND "GENUINE PEER VICTIMIZATION"

In my eyes, the varying severity calls for the need to carefully distinguish various bullying-related phenomena on a conceptual level. There may be classes with a lot of "bullying" in the sense that many students hit each other, whereas others curse at each other, and yet others ostracize each other. As long as this is an "each against everyone" (of about the same physical or psychological strength), I would prefer to call this phenomenon a "discipline problem" or an unfortunate "class climate".

However, whenever a school teacher realizes (or for that matter a researcher uncovers) that the "each against everyone" pattern has changed into a more systematic "all against one (or two) (weaker one/s)" pattern, it is high time to realize that "genuine peer victimization" is taking place.

This conceptual distinction is helpful when interpreting results. For instance, Mahdavi and Smith (this issue) state in their discussion (p. 366): "The rates of victim . . . nominations were rather similar in Studies 1 and 2, and not dissimilar from that of Schuster (1999a) . . . However, Study 3 produced noticeably higher rates of victim . . . nominations".

Let us therefore have a closer look at this Study 3 of Mahdavi and Smith (this issue), and analyse in what respects it addresses a different phenomenon according to the conceptual distinction proposed here. Before doing so, however, it should be noted that the method in Study 3 differed in so many aspects that these data are not comparable to either their Studies 1 or 2, or the studies published in Schuster (1999a). First, there had been major "reshufflings in class composition" (see p. 360) producing entirely different classes longitudinally and thus preventing the group from forming its hierarchy.

Even more important, the method did not follow the format of Mahdavi and Smith's Studies 1 and 2—in particular, a sorting of photographs

into piles of victims and bullies was used instead of nominations. The way this procedure was explained might have suggested to participants (at least it suggested to me) that the victim pile should also be "filled". Therefore, the threshold for selecting someone as a "victim" was possibly markedly reduced. In fact, the deviation from the other studies was in the direction that this pile was never empty and always filled with more than two pictures. (For further relevant differences between this study and the other studies see discussion of this topic in Mahdavi and Smith, on p. 361.)

For the present discussion of *conceptual* issues, however, the most important aspect of Study 3 (Mahdavi & Smith, this issue) is that another wording than the Olweus definition was provided. As already outlined, when interpreting the variations between studies (Schuster, 1996), it is mandatory to carefully consider whether all of the essential criteria of the Olweus definition are taken into account in the operationalizations. For instance, the Olweus definition requires the negative acts to be carried out (1) systematically. Operationally, this is often defined as repeatedly (e.g., at least once a week) and long-lasting (e.g., at least over a period of six months); for more recent suggestions, see Kallestad and Olweus (2003). Studies finding rates of up to 90%, in contrast, asked participants whether they had once in their school life experienced such an incident! Whereas duration and repetition can be taken into account fairly easily, the potentially more genuine criteria of (2) imbalance of power and (3) intention of harm have been neglected even more often.

These criteria have also not been attended to in the operationalization of Study 3 by Mahdavi and Smith (this issue), possibly due to the fact that data collection happened long ago when the discussion of the concept had just started. Instead, Mahdavi and Smith (this issue) "ascertained that the child understood what bullying meant, for example, 'someone who picks on other children and hits them for no reason'" (p. 361). With this wording, certainly no reference to "intent to harm" is made, and no focus on imbalance in strength, nor even on duration and repetition.

Therefore, in my eyes, Mahdavi and Smith's Study 3 assessed bullying behaviours that I would subsume under the conceptual umbrella of "discipline problems", whereas their Studies 1 and 2, as the Schuster studies, in fact dealt with "bullying" in the Olweus sense, i.e., with "genuine peer victimization".

That is, I suggest that we are dealing with a discipline problem and an unfortunate class climate as long as we find an "each against everyone" pattern. However, when all of these (or simply a few) bullies eventually focus on the same target unable to defend him/herself, that is, when we have an (few or) all *against one* pattern, then I would talk about genuine peer victimization.

IMPLICATIONS FOR INTERVENTION AND THEORY TESTING: CLASSROOM MANAGEMENT AND MEANS TAILORED FOR PEER VICTIMIZATION AS WELL AS DIRECT TESTS OF SCAPEGOATING

When talking about “bullying” and, in particular, when designing interventions against it, the distinction between “discipline problems” and “genuine peer victimization” should be carefully kept in mind. I certainly feel entirely misread by both Atria et al. (this issue) as well as Mahdavi and Smith (this issue) when they imply that I suggested that the finding of 1 or 2 victims in most classes invites resignation or justification for non-intervention. Definitely to the contrary, a vast amount of literature on “classroom management” (beginning with the seminal work by Kounin, 1970, on *Discipline and Group Management in Classrooms*; via classical treatments by eminent researchers such as Good & Brophy, 2002, *Looking in Classrooms*, again with pertinent treatments of managing classroom problems via prevention and effective coping; to more recent studies like the one by Roland & Galloway, 2002) suggests, in line with informal everyday observation of any parent with school-aged children, that teacher behaviour makes a huge difference!

However, general discipline problems such as disruptive and antisocial behaviour in class require and enable very different interventions as compared to more genuine “peer victimization” in the systematic sense as dealt with here. For instance, classroom discussions may be very helpful for establishing classroom rules that prevent future discipline problems such as hitting and kicking and swearing at each other. However, if there is a systematic victim in class, that is, given genuine peer victimization, classroom discussions may be the least appropriate action that can be taken. Open classroom discussions put way too much stress and pressure on the victim. In the course of such discussions, victims get openly marked, with all the known negative effects of labelling mechanisms. And making explicit what the victim him/herself is bravely trying to hide may bereave him/her of his/her last defence mechanism. That is, with “genuine bullying” in the Olweus sense, rather indirect measures might need to be taken, whereas discipline problems require open, transparent, and direct actions!

Let me now turn to a final and crucial aspect— theory testing. In my eyes, the most important message of the discussion held here is the need to conduct more theory-oriented research. So many studies have addressed descriptive questions with only limited success in helping us understand the dynamics driving the phenomenon. Far more interesting than the exact percentage of victims are the mechanisms involved!

For example, in following up these descriptive data, I tried to show that there are (social behaviour) mechanisms in the victim him/herself in the sense that he/she may be too submissive. Using the prisoners’ dilemma paradigm, I found that victimized children displayed a tendency to prefer co-operative choices—regardless of the moves of the interaction partner (Schuster, 1999b, 2001). Another set of mechanisms is operating on the group level. Using an attribution paradigm, I demonstrated that there exists a reputation bias against the victim against which the victim cannot defend him/herself even via changes in behaviour (see Schuster, 2001).

An *additional* mechanism (and not *competing*, as Mahdavi & Smith seem to think—mechanisms operating on a group level certainly do not exclude the possibility of the existence of individual risk factors) might be scapegoating. In a post hoc speculation, I suggested that this phenomenon may be at work. Mahdavi and Smith (this issue) have taken up this proposal and elaborated such an account much more systematically.

As convincing as their theoretical portrayal is, I am not sure whether I really understand the reasoning why the typical sex segregation found at this age level may be used as a means for testing this theory. To me, it seems preferable to test the scapegoating reasoning more directly than with the very indirect detour via prevalence patterns. An adequate test should involve systematic experiments manipulating the factors hypothesized to lead to scapegoating.

SUMMARY AND FINAL CONCLUSIONS

So, let’s ask again: What sense can we make of the entire sets of data (i.e., from Schuster, 1999a; Atria et al., this issue; Mahdavi & Smith, this issue) together? Should the differences between studies be explained by “culture” (British vs. German vs. Austrian schools)? see discussion in Mahdavi and Smith (this issue). I hope that I have succeeded in convincing the reader that rather systematic variations in methods and concepts do account for the variation. Is there a “failure to replicate Schuster”? Beyond explaining some of the differences by methodological variations, I believe that the discussion has helped to make clear that in fact the majority of classes have a “genuine” bullying problem, in that they focus on a small subset of targets. The discussion has been helpful, however, in pointing out the necessity to carefully formulate this hypothesis in a “weak” form and not in a strict “every class does have to have a victim” form.

Should we stay with the question of prevalence? Definitely no. I believe it is far more interesting to understand the mechanisms involved (as addressed by many researchers already). In doing so, I think the field would be well advised to carefully differentiate on a conceptual level between “genuine

peer victimization" vs. "disruptive and bullying behaviours" in the context of a more general "discipline problem".

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REFERENCES

- Atria, M., Strohmeier, D., & Spiel, C. (2007). The relevance of the school class as social unit for the prevalence of bullying and victimization. *European Journal of Developmental Psychology*, 4, 372–387.
- Coyne, J., Smith-Lee Chong, P., Seigne, E., & Randall, P. (2003). Self and peer nominations of bullying: An analysis of incident rates, individual differences, and perceptions of the working environment. *European Journal of Work and Organizational Psychology*, 12, 209–228.
- Good, T. L., & Brophy, J. E. (2002). *Looking in Classrooms* (9th ed.). Boston, MA: Allyn & Bacon.
- Juvonen, J., Nishina, A., & Graham, S. (2001). Self-views versus peer perceptions of victim status among early adolescents. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 105–124). New York: Guilford Press.
- Kallestad, J. H., & Olweus, D. (2003). Predicting teachers' and schools' implementation of the Olweus bullying prevention program: A multilevel study. *Prevention and Treatment*, 6 (np).
- Kounin, J. (1970). *Discipline and group management in classrooms*. New York: Holt, Rinehart & Winston.
- Mahdavi, J., & Smith, P. K. (2007). Individual risk factors or group dynamics? An investigation of the scapegoat hypothesis of victimization in school classes. *European Journal of Developmental Psychology*, 4, 353–371.
- Olweus, D. (1978). *Aggression in the schools: Bullies and whipping boys*. Washington, DC: Hemisphere Publishing Corporation.
- Roland, E., & Galloway, D. (2002). Classroom influences on bullying. *Educational Research*, 44, 299–312.
- Schuster, B. (1996). Rejection, exclusion, and harassment at work and in schools: An integration of results from research on mobbing, bullying, and peer rejection. *European Psychologist*, 1, 293–317.
- Schuster, B. (1997). Außenseiter in der Schule: Prävalenz von Viktimisierung und Zusammenhang mit sozialem Status. *Zeitschrift für Sozialpsychologie*, 28, 251–264.
- Schuster, B. (1999a). Outsiders at school: The prevalence of bullying and its relation with social status. *Group Processes and Intergroup Relations*, 2, 175–190.
- Schuster, B. (1999b). Zu brav oder zu böse? Mobbing-Opfer und Abgelehnte im Prisoner's Dilemma-Paradigma. *Zeitschrift für Sozialpsychologie*, 30, 179–193.
- Schuster, B. (2001). Rejection and victimization by peers: Social perception and social behavior mechanisms. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 290–309). New York: Guilford Press.
- Williams, K. D., Forgas, J. P., & Von Hippel, W. (2005). *The social outcast: Ostracism, social exclusion, rejection, and bullying* (Sydney symposium on social psychology). Hove, UK: Psychology Press.

Good friendships, bad friends: Friendship factors as moderators of the relation between aggression and social information processing

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The primary objective was to examine whether the associations between aggression and social information processing was moderated by friendship quality and the aggressiveness of the best friend. Drawn from a larger normative sample of 5th and 6th graders, 385 children (180 boys) completed questionnaires pertaining to friendship quality and social information processing. Friendship and peer nominations of behaviours were collected. Results revealed positive associations between aggressive behaviour and the endorsement of aggressive coping strategies in cases where the protagonist was an unfamiliar peer. However, one important exception emerged: no significant associations between aggression and aggressive coping were revealed for children with high-quality friendships with aggressive peers. In cases where the protagonist was the best friend, there was a significant relation between

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