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Outsiders at School: The Prevalence of Bullying and Its Relation with Social Status

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This article examines the prevalence of bullying on a group (school-class) level, the impact of data sources (self vs. other nominations) on victim identification, and the relation between bullying and rejection by peers in two samples from different types of schools ($n = 930$). I found that each school class typically contained one or two victims, who were best identified by peer reports, which proved to be highly consensual and distinct, and correlated closely with teacher reports. The simultaneous use of peer and self-reports allowed me to identify 'defensive' as well as 'sensitive' victims, i.e. individuals who were nominated via one data source only. Finally, a positive correlation between rejection and bullying was found, reflecting the fact that almost all bullied students were simultaneously rejected. In contrast, not all rejected students were victimized. That is, two subgroups of rejected individuals were identified: 'Victimized-Rejected' and 'Nonvictimized-Rejected'. The findings are discussed with respect to the possibility of generalizing insights from the sociometric literature to the phenomenon of bullying.

KEYWORDS bullying/mobbing, peer rejection, social (sociometric) status, victimization

In recent years, researchers from various sub-disciplines of psychology have observed the same phenomenon in different settings, namely the exclusion and harassment of individuals in their social groups. This phenomenon has been reported in clinical settings in therapy groups (e.g. Lyndon, 1994), where it is referred to as scapegoating; in organizational settings in work groups, under the heading of mobbing or harassment at work (e.g. Einarsen, Raknes, & Mat-

thiesen, 1994; Leymann, 1993); and in forensic settings, such as bullying in prisons (Ireland &

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Archer, 1996). Scapegoating has also been discussed in relation to sports teams (e.g. Fabianic, 1994), and social exclusion, referred to as ostracism, has even been investigated in experimental groups (Williams, 1997).

Most notably, peer harassment and social exclusion have been described in the school context in pioneering research by Dan Olweus (1978). Although Olweus (1978) and others in this tradition called it bullying (see e.g. Boulton & Underwood, 1992; Hoover, Oliver, & Hazler, 1992; O'Moore & Hillery, 1989; Whitney & Smith, 1993), or sometimes mobbing (e.g. Pikas, 1989), increasingly, and especially in American publications, it is referred to as victimization (e.g. Kochendorfer & Ladd, 1996; Perry, Kusel, & Perry, 1988).

Olweus (1978, 1992) made one of the earliest attempts to define this phenomenon, and his definition guided much of the later research (see review in Schuster, 1996a). Bullying is said to take place when an individual, unable to defend him- or herself, is exposed repeatedly (e.g. at least once a week) and over a long period of time (e.g. at least half a year) to intentional harm by one or several others, either directly (e.g. through physical assaults) or indirectly (e.g. through spreading rumors).

The general phenomenon of poor social relations among individuals in groups is not new, but has been addressed for decades in the research field of sociometry. Moreno (1934) observed in different social groups 'outsiders' who were left out by the others, and he developed a measure, sociometric choices, for identifying them. Based on this work, Coie, Dodge, and Coppotelli (1982) distinguished among five social status groups: In contrast to 'average' students, 'rejected' students are often named when classmates indicate the three peers whom they like least (negative nominations, or sociometric choices) and hardly named when peers indicate the three peers whom they like best (positive nominations), whereas 'populars' receive mostly positive and few negative nominations. 'Controversial' students receive a large number of both positive and negative nominations, and 'neglected' students are nominated neither positively nor negatively. In this

research tradition, an impressive body of knowledge has accumulated on the mechanisms involved in the acquisition of low social status (see Gronlund, 1959, for a review of the early sociometric literature, and Asher & Coie, 1990, for a selection of newer research findings).

Unfortunately, the more recent research on bullying has rarely acknowledged this literature. As Schuster (1996a, 1996b) has argued, research on social status, because it is methodologically more differentiated and addresses causal mechanisms, could make an important contribution to research on bullying, which so far is mostly descriptive and correlative in nature. If conceptual and empirical relations between the phenomena of bullying and peer rejection could be revealed, then theoretical considerations regarding mechanisms, prevention, and intervention related to one phenomenon could possibly be generalized to the other.

On a conceptual level, there are similarities as well as differences between rejection and bullying (Schuster, 1996a, 1998a): Similarities are apparent because, in both phenomena, the respective individual experiences the negative *attitude* of others in a social *group* over a long period of time. Differences are also apparent, however, because a rejected child does not necessarily have to experience negative *actions* on top of the negative attitude, and potential negative actions are not always carried out with the *intent of harming* the target – a definitional prerequisite for bullying. Peers may even experience pity for the individual nobody likes, yet they still do not want to socialize with this person.

Given these and other similarities and differences between rejection and bullying, it seems necessary to establish empirical relations between the two phenomena before generalizations can be made from one field to the other. This is the first aim of my paper. On the basis of the conceptual similarities outlined above, one might expect that almost all individuals who are classified as rejected are also identified as bullied, and vice versa. However, given the conceptual differences, alternative data patterns are also conceivable, such as find-

ing no relation at all, or finding that neglected persons, who share with the rejected the problem of few positive nominations, are as likely to be victims of bullying as the rejected group.

Although these two literatures have not as yet been systematically related to each other, relevant data have been reported. For instance, Boivin and Hymel (1997) found a negative correlation between social preference scores (i.e. the number of positive nominations minus the number of negative nominations) and peer victimization ($r = -.68$). Similarly, in a study by Perry et al. (1988), the number of positive nominations that students received correlated negatively with their victimization scores ($r = -.36$), and positively with the number of negative nominations that they received ($r = .57$). Victims in a study by Salmivalli, Lagerspetz, Björkvist, Österman, and Kaukiainen (1996) received few positive and many negative sociometric nominations. Finally, Boulton and Smith (1994) found victims to be overrepresented in the rejected group.

These findings support the idea that bullying and low social status are related, and more specifically, that bullying and rejection may overlap. However, the precise nature of this relationship is as yet to be determined. Does rejection go hand in hand with bullying, or do subgroups of the rejected exist who are not bullied, and do subgroups of the bullied exist who are not rejected?

Furthermore, with respect to the goal of generalizing findings from one literature to the other, these findings are limited because bullying was not assessed with the Olweus Bullying Inventory (Olweus, 1989), i.e. the instrument most commonly used in the European research tradition (see Schuster, 1996a). This inventory presents children with a description of bullying in everyday language. By contrast, the Perry et al. (1988) procedure presents participants with descriptions of specific behaviors. In addition, most studies using the Olweus Bullying Inventory (1989) have relied on self-reports (with occasional use of teacher reports), whereas studies using the Perry et al. procedure have obtained data from peer reports. It is not as yet clear whether these two data sources produce

equivalent findings. In fact, the moderate correlation between the peer-assessed victimization scores in Perry et al. and three additional self-report items in that study suggest that this may not be the case.

The present study thus addresses the empirical relation between bullying and rejection in more detail, assessing bullying with the Olweus Bullying Inventory, in both a self version and a peer version. Using both sources of data (self and peer reports) also makes it possible to compare prevalence estimations yielded by different assessment methods, and may allow us to differentiate among four important subgroups. Next to the unequivocally identified victims and nonvictims, there may be students who perceive themselves as bullied without their peers sharing this judgment, and students whom peers perceive to be bullied who do not describe themselves as such. The former group may be called 'sensitive', whereas the latter may be called 'defensive'.

Identification of these groups would have implications for research as well as intervention efforts. By relying on just one data source, a significant set of relevant individuals might be missed. Beyond that, the existence of 'sensitives' would allow researchers to study whether it is the objective exposure to aggressive acts, or the subjective perception of being bullied that leads to the devastating consequences of bullying that have been repeatedly documented (e.g. Olweus, 1993). Therefore, a second aim of the present study is to compare two sources of bullying data, namely peer and self, and in case of discrepancies, to provide an analysis for deciding which source should be trusted most.

Finally, these two data sources are also compared with respect to prevalence estimations. The procedure typically employed for estimating the prevalence of bullying consists of aggregating across school classes and then referring to an entire sample (see the review by Schuster, 1996a). A final aim of the present study is to introduce a different perspective on these prevalence estimations. Specifically, a breakdown at the level of school classes is reported, because this may provide more information about the psychological mechanisms involved. Does the

level of bullying vary across different groups, i.e. are there some school classes with many victims whereas others don't have any? Or does every group have its victim – that is, does every class have its whipping boy, or 'scapegoat'? In the latter case, theorizing about a fundamental social psychological mechanism would be warranted, whereas in the former case, a search for differentiating group factors, such as leadership styles, would be suggested.

In summary, the present study examines (a) the prevalence of bullying while considering the impact of the data source, and by means of a breakdown at the level of school classes; (b) the relation between social (sociometric) status and bullying, using both standard measures and including peer and self-perspectives; and (c) the differences among the four subgroups created by crossing self- and peer identification as a victim of bullying.

Study 1

Method

Participants Data were collected from 442 students in six 5th grade classes, five 7th grade classes, and five 11th grade classes at two German *Gymnasien* (upper secondary school leading to university entrance qualifications). Except for two 11th grade classes from a small town, all classes came from one school on the outskirts of the city of Munich. Both schools were located in a middle-class catchment area containing a low proportion of foreigners and/or German emigrants from Eastern Europe.

Only students who had personally participated in the study were included in the analysis, except one student who was identified as a victim of bullying by peers but who did not attend class that day (see below). This student was included in the analyses and was assigned a missing value on the self-report variables.

Materials, procedure, and dependent variables

Participants were told that the study concerned social relations among children or adolescents, and that their reports would be dealt with in confidence. In particular, students were told that their responses would not be passed on to

teachers, school principals, or fellow students. It was also emphasized that there were no right or wrong answers, but only opinions. Finally, students were told not to talk to each other about what they had reported, and the researcher took care to ensure that nobody sneaked a look at his or her neighbor's questionnaire.

Students were then asked to give the names (forenames and, if necessary, the first letter of a family name) of three classmates whom they would 'most like to' sit next to on a school bus excursion, as well as the names of three classmates with whom they would 'in no way' or 'least like to' sit next to. The criterion of a seating companion was chosen because it is frequently used (e.g. Juvonen, 1991), and because Moreno (1934) suggested that the criterion should refer to a concrete activity in which the choice could actually be realized. Information about the reliability and validity of sociometric choices can be obtained in Gronlund (1959; Chs. 5 and 6); with respect to the five status groups see Newcomb and Bukowski (1983).

Students were then given the description of bullying provided in the Olweus Bullying Inventory (1989). The German version of the following paragraph was presented:

Here are some questions about *bullying*. We say a student is being *bullied* when another student, or a group of students, say nasty and unpleasant things to him or her. It is also bullying when a student is hit, kicked, threatened, locked inside a room, and things like that. These things may take place frequently and it is difficult for the student being bullied to defend himself or herself. It is also bullying when a student is teased repeatedly in a negative way. But it is *not bullying* when two students of about the same strength quarrel or fight.

Students were then asked to name any classmates whom they thought suffered from bullying, or to just put a line through the space if they thought that nobody was bullied. If students believed that they were bullied themselves, then they were asked to enter their own name. The order of assessment of sociometric and bullying nominations was fixed; sociometric choices were always made first.

After the end of the main study (six weeks

later), the same definition was given to the teachers of 14 of the 16 classes, and they were asked to report victims of bullying. Questionnaires were returned for eight classes. Social status was thus assessed with one (peer) measure and bullying with three measures (peer, self, teacher reports).

Classifications Social status was determined on the basis of the procedure used by Newcomb and Bukowski (1983). As suggested by these researchers, these classifications were made on a grade by grade basis. To be classified as 'popular', students had to receive at least seven positive nominations and fewer negative nominations than the mean for their respective grades. 'Rejected' students had at least seven negative nominations and fewer positive nominations than the mean for their respective grades. 'Neglected' students had an impact score below chance, i.e. the sum of their positive and negative nominations was less than, or equaled, 2. 'Controversial' students were required to have either at least seven positive and negative nominations, or at least seven positive nominations and more negative nominations than the mean for their respective grade, or at least seven negative nominations and more positive nominations than the mean. Finally, 'Averages' were required to have fewer than seven positive and negative nominations, and a chance impact score (i.e. the sum of their positive and negative nominations was greater than 2). This categorization resulted in exhaustive and exclusive groups.

Students were also classified with respect to the presence or absence of bullying on the basis of either self- or peer reports. On the latter basis, students were categorized as 'bullied' when identified as such by at least five different peers. This criterion will be discussed in more detail in the analyses reported below.

Results

Prevalence and description of different status groups Table 1 reports the number of students classified in the various status groups, as well as the mean number of positive and neg-

Table 1. Number of students in each status group and number of positive and negative nominations per group

	Status groups				
	R	N	C	P	A
Absolute frequency	48	68	7	15	305
Frequency in %	10.8	15.3	1.6	3.4	68.8
Average positive nominations	.85	1.31	4.00	7.40	1.74
Average negative nominations	12.46	.28	6.71	.27	3.07

Note: R = Rejected, N = Neglected, C = Controversial, P = Popular, A = Average.

ative nominations in each status group. Forty-eight individuals (10.8% of the total sample) were rejected by their classmates, 68 (15.3%) were neglected, and 7 (1.6%) were classified as controversial. Popular students were less common than rejected ones: only 15 students (3.4%) fell into this category. The majority of students (305 or 68.8%) were classified as average.

Interestingly, there was a greater consensus about rejected students than about popular ones. Whereas up to 25 students nominated a rejected student negatively, the most positive nominations received by a popular child was eight. Accordingly, the group of rejected students received, on average, more negative nominations ($M = 12.46$) than the group of popular students received positive ones ($M = 7.40$), ($t(50.05) = 7.00, p < .001$).

Prevalence of bullying and the impact of assessment mode According to peer reports, 22 of the students (5%) were bullied (i.e. identified as victims by at least five other students). Interesting information was obtained from a further breakdown of the data at the level of each school class. Does bullying occur in every class, or are there classes in which it is widespread and classes in which nobody is bullied? Table 2 reports, separately for each of the 16 classes, how many individuals were named as victims of bullying by one peer, two peers, three peers, four peers, or five peers and more. These data provide support for the hypothesis that bullying

victims may be found in every class, regardless of the persons involved. Row 5 reveals that there were always one or two students in each class who were bullied, i.e. mentioned as being bullied by at least five peers! In 10 out of 16 classes, only one student was a victim, and in six classes, two students were victims. There were no classes in which no student, or more than two students, were bullied.

Whereas 22 students (5%) were bullied according to peer reports, only 16 students (3.6%) identified themselves as victims. The correlation between self- and peer reports was only moderate ($r = .36, p < .001$). Of the 22 students identified by their peers as victims, only 7 described themselves as victims. And the other way round, 9 students who were not identified as victims by their peers reported that they were victims of bullying.

To determine which of the two data sources could best identify bullied students, peer and self-reports were compared with the (external

criterion of) teacher reports. Whereas self-reports had a relatively low correlation with teacher reports ($r = .23, p < .002$), the correlation between peer and teacher reports was high ($r = .71, p < .001$).

A second way of determining the best method for identifying 'real' victims of bullying involves a further analysis of peer reports about who was bullied. Table 2 presents a breakdown of how many students were nominated by peers per class, and in each case, how frequently such nominations were made. Apart from the names of the 22 students who were unanimously identified (by more than five peers), few other students were nominated – only 25 in all. For example, in Class 1, alongside the two persons about whom there was consensus that they were bullied, only one further person was mentioned, and that person was named as a victim of bullying by only two students. On average, only 2.94 persons per class were named as victims of bullying by somebody or other, and of these, an aver-

Table 2. Frequency of nominations of students identified as bullied by peers – separately for individual classes

Frequency of nominations	Class															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Number of names nominated once ($n = 13, M = 0.81$)	-	-	2	-	-	2	-	-	-	1	3	-	1	-	4	-
Number of names nominated twice ($n = 5, M = 0.31$)	1	1	-	-	1	1	-	-	-	-	-	-	1	-	-	-
Number of names nominated three times ($n = 6, M = 0.38$)	-	2	1	-	-	1	-	-	1	-	-	-	-	-	-	1
Number of names nominated four times ($n = 1, M = 0.06$)	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Number of names nominated five or more times ($n = 22; M = 1.38$)	2	1	1	2	1	1	2	2	1	1	2	2	1	1	1	1
Frequency of nominations of consensually named names ($n = 274; M = 12.45$)	5	6	13	6	24	11	6	16	25	28	5	6	12	6	5	7
	14			15			19	16			23	6				

age of 1.38 persons were mentioned by at least five peers. This leaves only an additional 1.56 students per class who were named 'incorrectly'. A total of 45 (an average of only 1.80) nominations were allotted to these 'incorrectly' named (25) students, whereas a total of 274 nominations (an average of 12.45) were allotted to the group of 'correctly' named (22) students. This difference was significant ($t(21.61) = 6.65, p < .001$). In other words, there were very few incorrect identifications, because all possible names in a class did not appear arbitrarily or at random, and if a name came up, it was usually given with high consensus.

To further test whether the pattern of findings produced by peer ratings was random, actual frequencies were compared with expected ones. On the basis of a binomial distribution, the likelihood that one and the same person is nominated by one peer is .38, by two peers .19, by three peers .06, and by four peers .01 (see Table II in Hays, 1981). Thus, 64 percent of the names, or a total of 283 students, were expected to be mentioned up to 4 times, whereas the actual frequency was 25. The probability that a name would be mentioned by five peers is .0025, or a total of 1.1 students in my sample. The actual frequency, however, was 22 students. The chi-square test comparing the actual frequencies of 25 and 22 with the expected frequencies of 283 and 1.1 showed this difference was significant ($\chi^2(1) = 632.31, p < .001$).

Overlap between bullying and rejection Table 3 presents how many individuals in each status group were bullied, and reports the correlations between membership in each of the social status groups and bullying. Peer-assessed bullying showed no relation to membership of the controversial and popular status groups, a moderate negative relationship to the average and neglected groups (see Table 3), and, as predicted, a strong positive relationship to the rejected status group ($r = .52, p < .001$). Of the 22 victimized students (sum of row 1, Table 3), 18 were classified as rejected, whereas among the 48 rejected students (sum of column 1), 18 were also victimized. That is, there is one set of students who are rejected plus victimized ('vic-

Table 3. Overlap between bullying (peer and self-identified) and social status

Victimization	Status groups				
	R	N	C	P	A
<i>Peer-identified bullying victims</i>					
Yes	18	0	0	1	3
No	30	68	7	14	302
Corr. with bullying					
<i>r</i>	.52	-.10	-.03	.01	-.27
<i>p</i>	.000	.041	.543	.758	.000
<i>Self-identified bullying victims</i>					
Yes	9	0	1	0	6
No	38	68	6	15	299
Corr. with bullying					
<i>r</i>	.29	-.08	.07	-.04	-.13
<i>p</i>	.000	.083	.128	.446	.005

Note: R = Rejected, N = Neglected, C = Controversial, P = Popular, A = Average.

timized-rejected'), and another set of rejected students who 'manage' not to be bullied, or to be rejected only ('nonvictimized-rejected').

One possible difference between the 'nonvictimized-rejected' and the 'victimized-rejected' students may be the degree of rejection suffered. Indeed, as compared to a maximum of 16 negative nominations in the 'nonvictimized-rejected' set of students, 'victimized-rejected' students received up to 25 negative choices. Accordingly, the group of 'victimized-rejected' experienced, on average, more ($M = 15.61$) negative nominations than did the 'nonvictimized-rejected' group ($M = 10.57$) ($t(23.18) = 3.42, p < .002$).

A relationship between rejection and bullying was also found when the latter was assessed via self-reports (see lower part of Table 3), but it was weaker there ($r = .29, p < .001$). In addition, although peer identification of victims showed that nearly all of them (18 out of 22) were classified as rejected, this applied to only about half (9 out of 16) of the self-identified victims.

Analyses of the four subgroups created by crossing self- and peer identifications Table 4 crosses self- and peer identification as victim of bullying and reports the frequencies as well as

number of sociometric and bullying nominations for each subgroup. Table 4 ('Number of participants') reveals, first of all, that all four cells created by crossing self- and peer reports were occupied. That is, next to the unequivocally identified victims and nonvictims, 'defensive' and 'sensitive' students also existed.

Two 2 (Data Source: Peer vs. Self-Report) × 2 (Identification as Victim: Yes vs. No) ANOVAs produced a main effect for identification as a victim for the dependent variable of positive nominations, as well as for negative nominations. Students who described themselves as victims received more negative nominations ($M = 10.94$) than did students who did not consider themselves to be bullied ($M = 2.39$) ($F(1, 438) = 25.76, p < .001$). They also received fewer positive nominations ($M = 1.38$ vs. 2.78), but this difference was only marginally significant ($F(1, 438) = 3.12, p < .08$). Likewise, students who were described as victims of bullying by their peers received more negative nominations ($M = 13.67$) than did those who were not considered bullied ($M = 2.15$) ($F(1, 438) =$

$172.83, p < .001$), and they also received fewer positive nominations ($M = 1.10$ vs. 2.81) ($F(1, 438) = 13.05, p < .001$).

Inspection of Table 4 reveals that students who were identified unequivocally as victims (in both data sources) received more negative nominations ($M = 17$) than did students identified via just one data source (i.e. the 'defensive' ($M = 12$) and 'sensitive' ($M = 6.22$) students). Analogously, unequivocally identified victims received more nominations as bullying victims ($M = 15.43$) than did either the 'defensives' ($M = 11.50$) or the 'sensitives' ($M = 1.22$). However, the respective interactions between 'identification as victim' and 'data source' were not significant ($F_s < 1$).

Discussion

This study replicated several findings in the literature: 10.8 percent of students were classified as rejected (see Asher, 1990; Newcomb & Bukowski, 1983) and 5 percent were classified as being bullied (see Schuster, 1996a). Such replications increase trust in our procedures. Several new findings were also produced:

(1) Analyses of sociometric nominations showed that rejection was more frequent than acceptance, and that the consensus about rejected students was much higher than that about popular ones.

(2) Prevalence estimations of bullying showed that every class had one, and occasionally two, victim(s).

(3) A high level of trust can apparently be placed in peer reports of bullying, which were highly distinct and consensual. Moreover, peer reports correlated more strongly with the external criterion of teacher judgments than did self-reports.

(4) With respect to the four subgroups created by crossing self- and other identification as a victim of bullying, this study showed the existence of both unambiguously identified 'victims' and 'nonvictims', as well as 'defensive' and 'sensitive' students.

(5) Finally, a strong link between bullying and social status was revealed. There was a significant positive correlation between (peer and self-assessed) bullying and rejection when

Table 4. Frequencies per cell and number of peer nominations: self- vs. other-identification as bullying victim

Other-identification	Self-identification	
	Yes	No
<i>Names of the groups</i>		
Yes	'victimized'	'defensive'
No	'sensitive'	'non-victimized'
<i>Number of participants</i>		
Yes	7	14
No	9	412
<i>Positive nominations</i>		
Yes	.29	1.50
No	2.22	2.82
<i>Negative nominations</i>		
Yes	17.00	12.00
No	6.22	2.06
<i>Number of peer nominations as victims</i>		
Yes	15.43	11.50
No	1.22	.08

bullying was assessed with the Olweus Bullying Inventory. This link reflected an interesting pattern: although (almost) all bullied students were rejected, not all rejected students were bullied. That is, one subgroup was rejected only ('nonvictimized-rejected') and another was rejected plus victimized ('victimized-rejected').

Note that these findings were obtained in schools that were not representative, but whose students were middle-class and interested in university entrance degrees. One school (from which 14 of 16 classes were drawn) seemed to provide a particularly warm and enthusiastic environment. Therefore, it seemed advisable to replicate these findings in a very different type of school. Such a replication was the aim of Study 2.

Study 2

To test the generalizability of the main findings from Study 1, a second study was carried out using a sample that differed from the first in several important respects. The school for Study 2 was a so-called *Gesamtschule* – a school type very rare in Germany. Students stay there for the entire day (in normal schools, for the morning only), and as a result, they probably have closer contacts with each other as compared to regular schools. Further, students of this school type are flexibly assigned to different courses in each subject. That is, a student may receive the highest level of education in mathematics, and the lowest level in languages. This implies that students do not stay in single class groups all the time, and different courses are composed of different constellations of students. Yet certain hours are reserved for the so-called 'core group', so that rudimentary forms of classes still exist. Therefore, the groups are not as fixed or stable as compared to regular school classes, yet they still constitute social groups. Finally, this particular school was located in one of the most 'difficult' areas of Munich, characterized not only by a lower parental socioeconomic status, but also by a greater percentage of immigrants. In particular, a high percentage of students came from former Yugoslavia – and of these,

there were immigrants from Croatia as well as Serbia. According to teacher observations, these subgroups were fairly segregated from each other.

The specific features of this school thus made it likely that the class did not constitute a fixed social unit. Therefore, it is conceivable that no scapegoat was needed, and that no victims would be found at all. Alternatively, it is conceivable that different subgroups in each class might have their own victims. In these classes, then, one would not expect the number of victims to be limited. Therefore, a replication of the finding of at least one victim per group, and typically no more than two victims per group, would be particularly noteworthy. Given the major differences between settings, such a replication would increase our trust in the generalizability of the results.

Method

Participants Data were collected from six 6th, 7th, and 8th grade classes; 453 students filled out a questionnaire. Another 35 students did not attend class that day, but were mentioned (nominated on either the like least or like most measure, or on the bullying measure) by participating peers. These nominations were also included, resulting in a total of 488 'participants' for some analyses.

Materials, procedure, and dependent variables

As in Study 1, participants were told that the study concerned social relations among children and adolescents. To collect the sociometric and bullying nominations, the following procedure was invented in order to allow for anonymous assessment. All student names were written on the left part of the blackboard, and each student then chose a code name for him- or herself. The codes chosen were written on the right part of the board. Children were requested to use their code names instead of their real names. The use of the code name was repeatedly stressed, both in the materials and the oral instructions by the experimenter. All of the children followed this procedure.

As in Study 1, students indicated the three (code) names of peers next to whom they

would like to sit in a bus during a school excursion, the three peers they would not want to sit next to, and the peers whom they considered bullied. If they considered themselves as bullied, students were asked to fill in their own (code) name, and if they felt nobody was bullied, they were asked to put a line through the space.

Classifications of social and victim status were conducted as in Study 1.

Results

Prevalence and description of different status groups Analogous to Table 1, Table 5 reports the number of students classified into the various status groups, as well as the mean number of positive and negative nominations. Inspection of these two tables reveals percentages in the various status groups comparable to those of Study 1. For example, 10 percent of the students were rejected in Study 2, as compared to 10.8 percent in Study 1.

There was again an asymmetry in the consensus about rejected vs. popular students: rejected students were assigned a higher number of negative nominations than popular students were assigned positive ones ($t(57.92) = 5.91, p < .001$) (see Table 5).

Prevalence of bullying and the impact of assessment mode According to the peer reports, 33 individuals (6.8%) were identified as bullied, and 40 individuals (8.2%) identified themselves

as bullied. Thirty-five students (7.2%) could not identify themselves because they did not attend class. These percentages of victims are slightly higher than in Study 1. The correlation between peer and self-reports was again moderate but significant ($r = .34, p < .001$), as in Study 1.

The most interesting aspect of Study 2 concerns the presence of victims in each class. Table 6, which is equivalent to Table 2, shows how many individuals were named as victims per class. As in Study 1, the vast majority of classes contained either one or two students who were identified as victims by at least five peers. Thus, the basic pattern of findings was replicated in this different type of school. There was one class in this study that contained no peer-identified victim, but that individual just missed the criterion by one nomination. In addition, only four (out of 18) classes contained more than two victims (three times there were three victims, and once four).

Again, as in Study 1, the consensus about ‘correctly’ identified individuals was much higher ($M = 12.09$) than that for ‘incorrectly’ identified ones ($M = 0.31$) ($t(32.08) = 11.55, p < .001$). A comparison between the expected and actual frequencies of a maximum of five nominations again showed that choices were not random, but highly distinct. Although 64 percent (312.32 students in this sample) were expected to have fewer than five nominations, this actually held true for only 81 individuals, and although 0.0025 percent of the sample (1.22 students) was expected to have at least five nominations, many more students (33) were nominated at least five times. This difference was again significant ($\chi^2(1) = 999.17, p < .001$).

Overlap between bullying and rejection Table 7 displays the correlations between peer and self-assessed bullying and membership in the different status groups. The correlation between rejection and bullying was again, as in Study 1, significant and positive ($r = .53, p < .001$), and was weaker when the latter was determined on the basis of self-reports ($r = .25, p < .001$).

In this study, too, ‘nonvictimized-rejected’ (n

Table 5. Number of participants in each status group and number of positive and negative nominations per group

	Status groups				
	R	N	C	P	A
Absolute frequency	49	73	13	18	335
Frequency in %	10.0	15.0	2.7	3.7	68.6
Average positive nominations	.82	1.10	3.92	7.67	3.10
Average negative nominations	10.92	.47	8.23	.44	1.84

Note: R = Rejected, N = Neglected, C = Controversial, P = Popular, A = Average.

Table 6. Frequency of nominations of students identified as bullied by peers – separately for individual classes

Frequency of nominations	Class																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Number of names nominated once (<i>n</i> = 47, <i>M</i> = 2.61)	4	5	8	2	1	6	-	4	-	4	1	2	1	1	4	2	-	2
Number of names nominated twice (<i>n</i> = 16, <i>M</i> = 0.89)	1	3	1	-	2	1	-	2	-	-	2	-	-	1	1	-	-	2
Number of names nominated three times (<i>n</i> = 10, <i>M</i> = 0.56)	-	1	-	-	1	-	-	2	3	-	1	1	-	-	-	1	-	-
Number of names nominated four times (<i>n</i> = 8, <i>M</i> = 0.44)	1	1	-	1	2	-	1	-	-	-	-	1	-	-	-	1	-	-
Number of names nominated five and more times (<i>n</i> = 33; <i>M</i> = 1.83)	2	2	1	1	2	1	1	1	2	1	3	2	3	2	4	-	3	2
Frequency of nominations of consensually named names (<i>n</i> = 407; <i>M</i> = 12.15)	15	5	24	22	14	11	15	16	7	22	18	17	8	9	7	-	10	21
	11	8			7				5		8	5	6	11	7		19	17
											20		14		7		8	
															7			

= 26) and 'victimized-rejected' (*n* = 23) students were identified, whereas the combination 'victimized, but not rejected' was more rare (*n* = 10) (see Table 7). Again, the 'victimized-rejected' students suffered from a higher degree of consensual rejection (*M* = 12.70) than did the 'nonvictimized-rejected' students (*M* = 9.35) ($t(36.32) = 3.50, p < .001$). These students also experienced less acceptance (*M* = .57 vs. 1.04; $t(47) = 2.50, p = .016$).

Analyses of the four subgroups created by crossing self- and peer identification As in Study 1, all four cells created by crossing peer and self-identification of victims were filled. Table 8 presents the frequencies with which these cells were filled, as well as the number of nominations these subgroups received. A series of 2 (Data Source: Self vs. Other) \times 2 (Bullied: Yes vs. No) ANOVAs on positive, negative, and

bullying nominations revealed significant main effects for both factors, as well as an interaction among those factors for all three dependent variables (with the exception of positive nominations, where the interaction just failed to reach significance). Peer-identified victims received fewer positive (*M* = 1.11) nominations than did nonvictims (*M* = 2.97) ($F(1, 449) = 16.65, p < .001$), but they also received more negative nominations (*M* = 10.21 vs. 2.09) ($F(1, 449) = 173.52, p < .001$), and more nominations as victim (*M* = 12.36 vs. 0.30) ($F(1, 449) = 1193.60, p < .001$). Similarly, self-identified victims received fewer positive (*M* = 1.68) nominations than did nonvictims (*M* = 2.97) ($F(1, 449) = 7.33, p = .007$), but they also received more negative nominations (*M* = 5.53 vs. 2.31) ($F(1, 449) = 3.92, p = .048$), and more nominations as victim (*M* = 5.43 vs. .62) ($F(1, 449) = 28.30, p < .001$).

Table 7. Overlap between bullying (peer- and self-identified) and social status

Victimization	Status groups				
	R	N	C	P	A
<i>Peer-identified bullying victims</i>					
Yes	23	0	1	0	9
No	26	73	12	18	326
Corr. with bullying					
<i>r</i>	.53	-.11	.01	-.05	-.24
<i>p</i>	.000	.013	.893	.245	.000
<i>Self-identified bullying victims</i>					
Yes	13	4	1	0	22
No	29	59	11	18	296
Corr. with bullying					
<i>r</i>	.25	-.04	-.003	-.06	-.10
<i>p</i>	.000	.456	.951	.179	.028

Note: R = Rejected, N = Neglected, C = Controversial, P = Popular, A = Average.

Inspection of Table 8 reveals that victims identified via both self- and peer reports received the most nominations as victims of

Table 8. Frequencies per cell and number of peer-nominations: self- vs. other-identification as bullying-victim

Other-identification	Self-identification	
	Yes	No
<i>Names of the groups</i>		
Yes	'victimized'	'defensive'
No	'sensitive'	'non-victimized'
<i>Number of participants</i>		
Yes	13	15
No	27	398
<i>Positive nominations</i>		
Yes	1.23	1.00
No	1.89	3.05
<i>Negative nominations</i>		
Yes	8.92	11.33
No	3.89	1.97
<i>Number of peer nominations as victims</i>		
Yes	14.00	10.93
No	1.30	.23

bullying ($M = 14$), and the most negative sociometric nominations ($M = 8.92$; along with the defensive group, which in this study received only a few more negative nominations).

Conclusions

Study 2 revealed a slightly higher percentage of victims than did Study 1. This is consistent with previous findings that bullying may be more prevalent in lower class areas (e.g. Whitney & Smith, 1993). Apart from this minor difference, Study 2 provided a replication of all of the main findings from Study 1 with respect to the (1) characteristics of individual social status groups, (2) prevalence of bullying, (3) method most appropriate for assessing bullying, (4) four sub-groups created by crossing self- and other identification, and (5) relationship between rejection and bullying.

First, rejection was again more frequent, and showed greater consensus, than acceptance. Both of these findings are in line with early evidence by Moreno (1934). He observed that a certain percentage of students were persistently left out ('sociodynamic effect'), and that more 'outsiders' than 'stars' were identified than would be expected by chance (see also Moreno, 1987). Moreno (1954) also maintained that the mechanisms responsible for rejection were not simply the mirror-image of those responsible for acceptance, because 'repulsions' are felt more deeply than acceptance, and his participants found it easier to give reasons for rejection than acceptance. In line with this, Coie et al. (1982) observed that 'Overall, children seemed to have clearer ideas about the [behavioral] correlates of rejection than of acceptance' (p. 560).

Second, the systematic finding that all school classes contained at least one, and usually no more than two, victim(s) was replicated. The fact that there was at least one victim in each social group has theoretical significance. For instance, organizational psychologists have stressed that harassment (at work) depends on situational factors, such as stress, and poor leadership skills among managers (Leymann,

1993). Such an explanation implies variation in the occurrence of bullying across groups. Because such a variance was not found (either between classes or between schools), the present study suggests that situational factors, or group characteristics, may play a subordinate role with respect to whether bullying *occurs* or not. This is not to say that factors such as leadership style play no role at all. Rather than influencing the occurrence of bullying *per se*, they may influence its *degree*.

The finding of at least one victim per group also invites speculation about the function bullying may serve. Perhaps bullying constitutes a fundamental social psychological mechanism with important group-dynamic functions, such as establishing or maintaining group coherence. This function is succinctly captured by the term 'scapegoat', which is also often used in this context (e.g. Lyndon, 1994).

Finally, the finding of at least one victim per class suggests that it is not realistic to attempt to entirely eliminate bullying in schools. However, relevant programs may be able to prevent the same student from remaining in this role for a long period of time. Much would already be gained as a result.

Equally noteworthy is the finding that in most groups, only one or two victims of bullying are found. This suggests that one scapegoat may suffice for establishing or maintaining group coherence, and that cases involving more than one victim per class may reflect the formation of distinct subgroups. This interpretation was suggested by an informal observation from one teacher in Study 1, who believed that there were two subgroups in her class that had hardly any contact with each other. Consistent with this explanation is the finding from Study 2 that three and four victims were found in some classes. Due to the greater heterogeneity of this sample, as compared to the sample in Study 1, the likelihood of separate subgroups was heightened in Study 2. This would create a greater number of victims in each class, if in fact different cliques in that class each contained a victim.

With respect to the method most appropriate for identifying bullying victims, peer data

proved very suitable. The validity of peer data (as compared to self-reports) was suggested by the high correlation between peer and teacher reports, as compared to peer-self or self-teacher correlations. Even though the correlation may have been slightly overestimated due to selection effects (only teachers who best knew their students may have returned questionnaires), this pattern of correlations was consistent with findings from an entirely different field. Malloy, Yarlay, Montvilo, and Sugarman (1996) reported that judgments of such diverse features as physical attractiveness, academic performance, and social successes correlate more closely with peers and teachers than do self- and peer judgments.

Because such correlations do not constitute conclusive evidence, a further type of analysis was necessary for deciding which data source can best be trusted. This analysis consisted of determining the consensus and distinctiveness of peer responses. This analysis, too, suggested that peer data are valid, because across both studies peer data were highly consensual, as well as highly distinct. This finding has far-reaching implications for both research and intervention. A precise diagnosis of who is a victim and who not is crucial for the selection of research participants, as well as the identification of candidates for interventions. Yet most (European) studies on bullying use self-reports.

Thus, the findings from both studies imply that a focus on self-reports may prevent important insights, and should be supplemented by peer reports. To supplement rather than replace self-reports is suggested by the fourth finding from my research, concerning the subgroups created by crossing of self- and other-identification. In particular, the existence of 'sensitives' and 'defensives', a categorization supported by related measures, seems important. While the present manuscript was being written, I came across a paper making a similar distinction. Graham and Juvonen (in press) also found subgroups created by crossing self- and peer identification. They called the resulting groups 'deniers' and 'paranoids'.

The existence of both 'defensives' and 'sensi-

tives' is noteworthy. 'Sensitive' students may indeed be exposed to aggressive acts that are unobserved by others. For instance, they might be attacked by a single bully when s/he meets them unaccompanied. Other sensitives, however, may not be 'objectively' exposed to aggressive acts, but display instead a tendency to interpret 'harmless' acts as hostile and aggressive. This may induce 'sensitives' to show reactions that peers, in turn, find weird, and lead to a vicious circle at the end of which the perceived bullying eventually becomes real bullying. Another alternative is that these sensitive students experience rejection (without aggressive actions) that they interpret as bullying. Such a speculation is invited by the finding that sensitives receive more negative nominations than nonvictimized students.

Aside from the risk of 'subjective' bullying turning into 'objective' bullying, subjective bullying in itself may constitute an important risk factor for psychosocial adjustment. If sensitives feel they are left out of the group or feel attacked by the others, then they may feel hurt and develop as low a level of self-esteem as children who are indeed exposed to this mistreatment. Therefore, for theorizing about bullying, important insights may be gained from disentangling the psychological consequences of bullying experiences in those two different groups, which share the impression of being bullied, but differ with respect to the peer judgment of their being victimized by bullying. Is it the actual aggressive act, or the subjective experience of being attacked, that results in the devastating consequences of bullying for victims (e.g. Leymann, 1993; Olweus, 1993)?

Likewise, the existence of a defensive group should be considered more carefully. These 'defensives' are typically left out in research studies and intervention programs that select bullied children on the basis of self-reports, but the apparent validity of peer reports suggest that they require attention and help just as much as students who identify themselves as victims.

Finally, the main issue of my research concerns the overlap between bullying and rejection. As was the case at the conceptual level, the

data showed similarities as well as differences. Similarities were suggested by the strong positive correlation between the two concepts, and by the finding that all bullied students were also rejected. Differences were also apparent, however, because the correlation was not perfect, and all rejected students were not bullied.

The close *parallels* at both the conceptual and empirical level imply that theoretical considerations and research findings can indeed be generalized from one research area to the other. Because most bullied students are also rejected, the literature on correlates of rejection may offer important insights for understanding bullying too (see Schuster, 1996a, b). For instance, rejected children display characteristic social competence deficits, suggesting opportunities for intervention, such as teaching rejected children specific social skills (see e.g. Mize & Ladd, 1990). Such training may likewise help bullied students to gain a better level of acceptance in their group, which may then serve as a buffer against aggressive attacks.

The sociometric literature also suggests, however, that training programs may be more efficient if they target peers as well. Hymel (1986), for instance, showed that peers often develop a negative stereotype of the rejected individual, an image that is not easily modified by contradictory information (Schuster, 1998b). Denham and Holt (1993) showed that differences in behavior no longer predict differences in social status, once a negative reputation is acquired. That is, even if a rejected and/or victimized child learns more effective social behavior, his or her status may only change after peers are forced to reconsider their stereotypes.

A simultaneous consideration of both rejection and bullying also led to the discovery of two distinct subgroups of rejected students not identified so far, namely 'nonvictimized-rejected' vs. 'victimized-rejected'. The existence of these two subgroups may imply that rejection constitutes a risk factor for bullying. It would be interesting to examine what additional factors must be present for bullying to arise, or what factors prevent rejection from turning into bullying. Does the environment of rejected but nonvictimized students prevent bullying, perhaps by interference

from teachers or peers? Do these students possess certain abilities or resources that 'victimized-rejected' students lack? Possibly, the 'victimized-rejected' group respond to attacks in a way that encourages bullying (see Mohr & Becker, 1997; Schuster, in press).

These considerations imply that bullying is a consequence of rejection. It is quite conceivable, however, that rejection in the two subgroups is caused by two different mechanisms. 'Nonvictimized-rejected' students may be rejected because of factors identified in the sociometric literature, such as disruptiveness (see Asher & Coie, 1990), whereas the 'victimized-rejected' students are *first* victimized because they constitute easy targets. Only *then* are they rejected, due to a 'derogation of the victim-process', by which peers justify their attacks or lack of help. That is, rejection in this case might be a *consequence* rather than a cause of bullying. Thus, different mechanisms may be responsible for the status of different subgroups of rejected students. A recent study indeed suggests the operation of two different mechanisms (Schuster, in press). Whereas 'nonvictimized-rejected' students behave in the prisoners' dilemma paradigm very competitively, the 'victimized-rejected' are very cooperative.

All of this suggests that generalizations from one field to the other must be carefully founded in empirical research. My results also warn us not to overgeneralize within the sociometric field itself, because rejected students are not a homogeneous group, but rather two different groups whose poor social status may be caused by entirely different mechanisms.

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