

SUBTYPES OF VICTIMIZATION IN SCHOOL

ARE PASSIVE VICTIMS, PROVOCATIVE VICTIMS AND BULLY-VICTIMS DISTINCT  
GROUPS?

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## ABSTRACT

**Background:** While most research on victimization distinguishes between two subtypes of victims, there is initial evidence for the existence of three subtypes, differing on aggression, resource control strategies and social dominance. The purpose of this study was to further explore differences between those three subtypes: passive victims, provocative victims, and bully-victims. **Method:** data were collected from 1230 Dutch fourth through sixth grade elementary school children (ages 8 to 14 years), using peer nominations as well as self- and teacher reports. **Results:** Multivariate analyses of variance showed that victim subtypes did differ from each other and from the control group. Passive victims used little resource control strategies, including aggression and had low social dominance status. Provocative victims were especially reactively aggressive, had higher social dominance than passive victims, but lower than bully-victims. Bully-victims were found to use coercive strategies the most and have the highest resource control, compared to the other subtypes and the control group. Furthermore similarities were found between bullies and bully-victims on reactive aggression, self-reported resource control, prosocial and coercive strategies, and depression. **Conclusion:** results confirm the distinctiveness of three subgroups of victims. These differences stress the need to use different intervention strategies for different subtypes of victims.

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Bullying was originally defined by Olweus in the late 1970s and is usually regarded as a subcategory of aggressive behaviour (Salmivalli & Peets, 2009; Solberg, Olweus, & Endresen, 2007). Although definitions can vary to some extent, it seems universally accepted that it involves an intent to harm, repetition over time and a power differential, meaning that it is difficult for the victim to defend himself (Salmivalli & Peets, 2009). The Health Behavior in School-Aged Children (HBSC) survey of the World Health Organization (WHO) indicates that bullying is a common form of violence among children (ages 11, 13 and 15) from different countries. Over 200,000 children from forty different European, North-American countries and Israel were questioned about bullying and victimization, using self-reports. Results indicated that in general 26% of these children were involved in bullying behaviour, either being a bully (10.7%), a victim (12.6%) or both (3.6%, Craig et al., 2009).

Since the 1970s bullying and victimization has become an important subject of research. Since then, the number of publications has been increasing, with between 100 and 200 new studies emerging every year nowadays (Salmivalli & Peets, 2009; Stassen Berger, 2007). For a long time, there has been a stereotypical view of bullies as socially incompetent children, with low self-esteem, low social standing in the peer group, and other adjustment problems (Salmivalli & Peets, 2009).

Contrasting with this view however, bullying behaviour can be characterized as deliberate and systematic (Salmivalli & Nieminen, 2002). Furthermore it seems that most bullies feel powerful and have high self-esteem (Graham & Bellmore, 2007; Stassen Berger, 2007), that they often enjoy high social status and are perceived as popular by peers (Graham & Bellmore, 2007). Thus, instead of social incompetence, bullying is recently seen as socially skilled behaviour, aimed at gaining and maintaining social status and a powerful, dominant position within the peer group (Olthof, Goossens, Vermande, van der Meulen-van Dijk, & Aleva, 2008; Pellegrini & Long, 2002; Salmivalli & Peets, 2009).

Recent views define social dominance in terms of resource control, that is, access to valuable resources (Hawley, 1999; Pellegrini, 2008). According to Hawley's Resource Control Theory, coercive and pro-social strategies can be used to acquire good resource control. Olthof et al. (2008) confirmed findings of Hawley (1999, 2003) in that children using either coercive or pro-social strategies (monostrategics) had better resource control and were more perceived popular than children not using such strategies. Furthermore, children flexibly using both types of strategies (bistrategic controllers) had better resource control and were more perceived popular than monostrategics. In line with resource control theory, it is found that bullies are likely to be either coercive or bistrategic controllers and indeed seem to have higher resource control than other children (Olthof et al., 2008). Being a bully was related to a desire to be dominant. Sijtsema, Veenstra, Lindenberg and Salmivalli (2009) also concluded that bullies attached values to status goals, whereas victims did not.

As a mean to display dominance, bolster power and win admiration, bullies are expected to use proactive aggression (Stassen Berger, 2007), that is planned and unemotional aggressive behaviour aimed at taking possession of things, dominating or intimidating (Dodge, 1991, as cited by Polman, Orobio de Castro, Thomaes, & van Aken, 2009). Multiple studies confirmed the use of proactive aggression, however (some) bullies used reactive aggression (i.e., aggression as a reaction to a presumed threat, being associated with anger and instigated by provocation; Dodge, 1991, as cited by Polman et al., 2009) as well (Camodeca, Goossens, Meerum Terwogt, & Schuengel, 2002; Pellegrini, Bartini, & Brooks, 1999; Salmivalli & Nieminen, 2002; Sijtsema et al., 2009).

Initially, research focused on two broad categories of children involved in bullying: bullies and victims, with victims typically seen as weak, defenceless, passive and submissive (Schwartz, 2000; Schwartz, Proctor, & Chien, 2001; Stassen Berger, 2007). However, already in 1978 Olweus found that although the majority of victims were consistent with the view of passive or over submissive children, there was a small subgroup, which he called provocative victims, which teachers depicted as irritable, restless and hostile. Since the 1990s, there has been an increase in research on those different types of victims (Solberg et al., 2007). The term bully-victim is often used in literature to describe a group of children who are both victims and bullies (Pellegrini et al., 1999; Salmivalli &

Nieminen, 2002; Solberg et al., 2007; Unnever, 2005). However, exact definitions do vary and there is a tendency in the literature of interchangeably using the terms bully-victims, aggressive victims and, to a lesser extent, provocative victims to describe a second group of victims (Solberg et al., 2007). Whether this is justified seems to be questionable. There are inconsistencies in research findings when victims are categorized as low-aggressive, passive victims versus aggressive, provocative or bully-victims. Vermande et al. (2008) pointed out that while some studies found passive victims to be nonaggressive and submissive (e.g. Stassen Berger, 2007) others indicated that passive victims are reactively aggressive (e.g., Pellegrini et al., 1999; Salmivalli & Nieminen, 2002; Unnever, 2005). Furthermore bully-victims are found to be reactively aggressive in some studies (e.g., Olweus, 1978; Pellegrini et al., 1999; Schwartz et al., 2001), but reactively as well as proactively aggressive in others (e.g., Salmivalli & Nieminen, 2002; Unnever, 2005).

Thus, there is initial evidence of the existence of three groups of victims, although it is still unclear whether these are overlapping categories or distinct groups. Vermande et al. (2008) suggested that there is a distinction between passive victims, reactively aggressive victims, and proactively and to a lesser extent reactively aggressive victims. This second group of reactively aggressive victims might be the provocative victims as described by Olweus (1978), while this third group of proactively as well as reactively aggressive victims might comprise the bully-victims. In this study the terms passive victim (for the passive, submissive, pure victims), provocative victim (for the reactive-aggressive victims) and bully-victim (for those victims who also bully) will be used. The term provocative victim was preferred in this study, because the term aggressive victim is often used in the literature to describe the group of bully-victims, or for a combined group of bully-victims and provocative victims.

Based on the current literature, passive victims, provocative victims and bully-victims are expected to differ on a couple of variables. As described earlier, passive victims are seen as weak, defenceless, passive and submissive (Schwartz, 2000; Schwartz et al., 2001; Stassen Berger, 2007). They have few friends, reinforce the bully by showing pain and blame themselves (Stassen Berger, 2007). They also have low rates of socially skilled assertive behaviour (Schwartz, 2000). Passive victims are expected to employ little resource control strategies, including aggression, and have low dominance status. Indeed, Vermande et al. (2008) concluded that passive victims used less coercive strategies than both the other victim subtypes. Also, Salmivalli and Nieminen (2002) found that victims (as a group separate from bully-victims) were less proactively and reactively aggressive than bully-victims. They were also found to be as low on proactive aggression as control children, but higher on reactive aggression. This can be explained because no difference was made between passive and provocative victims (who are expected to be especially reactively aggressive). Instead of using aggression, passive victims might turn their anger inward, developing internalizing problems

(Hawker & Boulton, 2000; Prinstein, Cheah, & Guyer, 2005). However, in a study of Schwartz (2000) passive victims were not characterized by feelings of depression and anxiety. Again, this may be explained because Prinstein et al. (2005) did not make a distinction between passive and provocative victims while Schwartz (2000) did, thus suggesting that it are those provocative victims who have more internalizing problems.

Provocative victims, or aggressive victims as they are called in some literature, can be described as aggressive, hot-tempered, restless and disruptive (Olweus, 1978; Schwartz, 2000). Toblin, Schwartz, Hopmeyer Gorman, and Abou-ezzeddine (2005) found that fourth and fifth grade aggressive victims were more hyperactive than bullies, passive victims and control children. Schwartz (2000) also found among fourth through sixth grade boys that aggressive victims had higher scores for impulsive behaviour, hyperactivity, and emotion dysregulation than nonaggressive victims, nonvictimized aggressors and a control group of nonaggressive and nonvictimized boys. Because of these characteristics, provocative victims are expected to be especially reactively aggressive. Furthermore, aggressive victims can be seen as ineffectual aggressors, differing from nonvictimized aggressors (effectual aggressors) who succeed in dominating peers with their goals-oriented aggressive behavioural strategy (Perry et al., 1992, as cited by Schwartz et al., 2001). This, in combination with their deficits in self-regulation, makes that provocative victims are expected to have low dominance status. Furthermore, they are found to have lower social preference scores (Toblin et al., 2005) and are more socially rejected (Schwartz, 2000) than others. Also, their emotional and behavioural dysregulation supports the theoretical distinction from bully-victims, in that it seems incompatible with the effective use of goal-oriented aggressive behaviour in a controlled and dominant matter (Schwartz et al., 2001).

The third subtype of victimization comprises those children who both bully and are being bullied. Because those bully-victims do bully, they probably share some of the characteristics of pure bullies, who are found to attach values to status goals and use bullying for dominance displays (Pellegrini & Long, 2002; Sijtsema et al., 2009). They thus are expected to have a higher dominance status than passive and provocative victims. Salmivalli and Nieminen (2002) showed that among bully-victims there was an overrepresentation of children who were both proactively and reactively aggressive; children showing aggression in only one way were not likely to be bully-victims. Furthermore, they were found to be even more aggressive than bullies (Salmivalli & Nieminen, 2002). More specifically, Unnever (2005) found bully-victims to be less proactively, but more reactively aggressive compared to pure bullies, and more proactively aggressive than passive victims.

Because of the differences in characteristics between the different victim subtypes, gender differences in prevalence are expected. Boys were found to be more likely to be bullies than girls (Pellegrini & Long, 2002; Sijtsema et al., 2009; Solberg et al., 2007). However, literature on gender

differences in victimization is ambiguous. While some researchers found higher victimization scores for boys than for girls (Pellegrini & Long, 2002; Sijtsema et al., 2009; Spence, De Young, Toon, & Bond, 2009), others did not find any gender differences (Solberg et al., 2007). These contrasting results might be due to the way victimization is measured. Because girls seem to use indirect forms of bullying more often than direct forms (Salmivalli & Peets, 2009), only focusing on direct forms of bullying and victimization or using mean scores over all forms of bullying might lead to a systematic underrepresentation of girls among the different groups of victims (Schwartz et al., 2001). Because of their similarities with bullies, bully-victims are also expected to be more likely to be boys than girls. Also, among provocative victims more boys than girls are expected, because when boys behave aggressively, it is more often with a reactive function (Polman, 2008), and boys use coercive strategies more often than girls (Hawley, 2003). Among passive victims, more girls than boys are expected.

The purpose of this study was to further explore evidence that there are three distinct, and theoretically important, subgroups of victims. Differences between the three groups of victims and a control group (i.e. children who don't bully nor get victimized) were examined. Differences in gender distribution as well as interaction effects of gender and victim subtype were explored. First, the victim subtypes were expected to differ on a combination of aggression (proactive as well as reactive), social position (resource control and perceived popularity) and resource control strategies. Hypotheses were that (1) passive victims would be the least aggressive, employ resource control strategies the least and have the low social position, (2) provocative victims would be especially reactively aggressive, use more resource control strategies, but also have low social position, and (3) bully-victims would use proactive as well as reactive aggression, employ resource control strategies the most and have the highest social position. Second, differences between the subtypes on psychosocial adjustment (social preference, self-perceived social acceptance, global self-worth, and depression) were examined. The hypothesis was that provocative victims would have the most psychosocial maladjustment, followed by passive victims and bully-victims. Lastly, bully-victims were compared to pure bullies (i.e. children who bully, but don't get victimized) on all dependent variables. The hypothesis was that bully-victims would share some of the characteristics of bullies, but that they would be more reactively aggressive, have lower social dominance and more social maladjustment.

In order to test these hypotheses, data from fourth through sixth grade Dutch elementary school children were collected. Peer nominations as well as self- and teacher reports were used. After the subgroups of victims as well as pure bullies and a control group were identified, multivariate analyses of variance were used to examine differences between the subgroups as well as an interaction effect with gender.

## METHOD

### Participants

Data were used from an ongoing longitudinal study on bullying and peer relations of Dutch children (Dutch Consortium on Bullying: DCOB). In the present study data were used from 1230 elementary school pupils (50.6% boys) of 53 classes from 17 schools. Pupils were between the ages of 8 and 14 years ( $M = 11.23$ ,  $SD = 0.95$ ) and most of the children (88.5%) were born in the Netherlands. Of the participants 32% were in group 6 ( $M_{\text{age}} = 10.26$ ;  $SD = 0.53$ ), 36.2% were in group 7 ( $M_{\text{age}} = 11.21$ ;  $SD = 0.52$ ) and 31.8% were in group 8 ( $M_{\text{age}} = 12.25$ ;  $SD = 0.50$ ), which is comparable to grades 4 through 6 of the British and American school systems. Parents received a letter with information about the study. Both parents and children could refuse participation, but 96% of all children participated.

### Measures

*Involvement in bullying and victimization.* An adapted version of the peer nomination procedure described by Goossens, Olthof, and Dekker (2006), that was itself an adaption of the procedure introduced by Salmivalli, Karhunen, and Lagerspetz (1996), was used. The procedure distinguishes between the roles of ringleader bully, assistant, reinforcer, outsider, defender and victim. Rather than asking for bullying in general as has been done in previous research, five forms of bullying were included: physical (e.g., hitting), possession-directed (e.g., damaging belongings of other children), verbal (e.g., calling names), direct relational (e.g., turning one's back on someone who wants to play) and indirect relational (e.g., gossiping or saying mean things about someone). The aim of including different forms of bullying was to prevent underestimation of female bullying and victimization (Salmivalli & Nieminen, 2002; Schwartz et al., 2001).

Children were first given a general definition of bullying: *"Bullying is that one or several children annoy and humiliate another child again and again by hurting that child. This can be done in several ways: (1) by hitting, kicking, or pinching; (2) by taking belongings or by destroying or losing them; (3) by ridiculing, calling names, or insulting; (4) by making the child being excluded from games or activities; (5) by making other children think bad of the child or by gossiping. Thus, bullying is not a conflict between children of equal power and strength, nor is bullying playing jokes. No, bullying is bothering a child over and over again in order to hurt or distress that child. Now I'm going to tell you about how children may bully others and then I want to know from you whether or not there are children in your class who bully in this way. But I also want to know whether or not there are children in your class who are being bullied that way. You can use this list with names as a reminder. All questions are about the current situation, that is, today and the past weeks. But not, for instance, last year"*. Next, they were interviewed about each form of bullying successively. A description of the particular form of bullying was given and the child was handed a list with the various behavioral

manifestations belonging to that form. To elicit victim nominations the interviewer asked: *“Do you know anyone in your classroom who is being bullied in this particular way? If so, could you give us the name(s)?”*. To elicit bully nominations the interviewer asked: *“Do you know which classmates carry out that particular form of bullying?”*. To be able to distinguish between ringleader bullies and assistants, the interviewer asked: *“You have just mentioned X. Do you think X is someone who initiates this form of bullying or is X someone who joins in after this form of bullying has started?”*. This procedure was repeated for each form of bullying. Next, three further questions were asked to elicit outsider, defender and reinforcer nominations. After an elaborate description of the behavior was given, children were asked to nominate peers who fit the description.

Overall bullying scores were computed as follows. First, proportion scores, ranging from 0 to 1, were computed for each form of bullying by dividing the number of times a child had been nominated as a ringleader bully by the number of nominators (i.e. classmates present). Overall bullying scores were then computed as the mean of the two highest scores (e.g., physical and verbal). This was done as children may not use all forms of bullying; computing a grand mean over all forms may thus underestimate the bullying (Witvliet et al., 2010). Overall victimization and assistant scores were computed in a similar way. Overall scores for outsider, reinforcer and defender were computed as the proportion scores of the relevant items. The overall scores were used to classify children as pure bullies, victims (passive, provocative and bully-victims) and noninvolved (see Identification of groups).

*Aggression.* Teacher reports were used to measure children’s aggression. Forms and frequency as well as functions of aggression were measured with the Instrument for Reactive and Proactive Aggression (IRPA), developed by Polman et al. (2009). This instrument is in turn a modified version of a questionnaire developed by Kupersmidt, Willoughby, and Bryant (1998). Research with the IRPA among 427 children aged 10 to 13 showed that the questionnaire has good discriminant, convergent, and construct validity (Polman et al., 2009).

Teachers were asked to rate frequencies in the past month (never or once, two-weekly, weekly or daily) for twelve different forms of aggressive behaviours of all children in their class. The twelve different forms of aggression concerned physical aggression (e.g., “How often did the child kick other children”), verbal aggression (e.g., “How often argued the child with other children”), covert aggression (e.g., “How often did the child secretly take things from other children”) and relational aggression (e.g., “How often did the child gossip about other children”). However, because some of the teachers objected to the length of the questionnaire, in this study an abbreviated version of the IRPA was used. This version included the following five forms of aggression: kicking, pushing, calling names, doing sneaky things, and gossiping. When an item was scored with a



frequency of two-weekly or more, teachers also rated functions of aggression. In this way, ambiguous mixtures of both forms and functions of aggression – which may well contribute to inflated correlations of reactive and proactive aggression (Little, Jones, Henrich, & Hawley, 2003; Polman et al., 2009) – are avoided. These functions were measured by indicating the frequency (on a scale of 0 to 2: never, sometimes, always) of seven function items, concerning both proactive aggression (to get attention, to get something s/he wanted, to hurt someone or to be mean, to be the boss) and reactive aggression (because someone teased or upset her/him, because this child felt threatened by someone, because this child was angry).

The function item ‘to get someone’s attention’ was removed from the proactive scale, because it led to a significant drop in reliability. An overall aggression score was computed by averaging scores on the five form items and standardizing the result within school class (Cronbach’s alpha = .81). Three reactive and three proactive function-scores were computed by aggregating the reactive and proactive functions across behaviours. For instance, the reactive function-item “because this child was angry” was computed by averaging “kicking because this child was angry”, “pushing because this child was angry”, etc. Scores on reactive aggression and proactive aggression were obtained by calculating the mean of the three relevant function items. Reliabilities were good (Cronbach’s alpha = .71 for the proactive aggression scale, Cronbach’s alpha = .79 for the reactive aggression scale) and comparable to those obtained by Polman et al. (2009, both alpha’s .72). To also include non-aggressive children, null-scores were assigned to both reactive and proactive aggression for children who did not show any form of aggression (Polman et al., 2009).

*Resource control.* Six items adapted from Hawley (personal communication, March 31, 2005) were used (e.g., “Which children in your class usually play with the favored toys?”). Peer nominations as well as self- and teacher reports were used. Concerning the peer nominations, proportion scores ranging from 0 to 1 were computed for each item (as with the bullying and victimization scores) and then averaged (Cronbach’s alpha = .90). Self-reported as well as teacher reported scores on the six items were averaged (Cronbach’s alpha = .79 for the self-report and Cronbach’s alpha = .95 for the teacher report).

*Perceived popularity.* Perceived popularity is a measure of social visibility. Children nominated classmates for the questions reading “Which children in your class are popular?” and “Which children are not popular?”. A continuous measure was determined by subtracting the standardized number of unpopular votes from the standardized number of popular votes and again standardizing the result within school class (Cillessen & Mayeux, 2004).

*Strategy use.* Prosocial and coercive strategy use was measured with peer nominations on twelve items adapted from Hawley (Vermande et al., 2008). Children nominated classmates on six items for prosocial strategy use (e.g., “Which children in your class promise to invite other children to get what they want? They say for example: Then I’ll invite you to my birthday party.”) and six items for coercive strategy use (e.g., “Which children in your class try to get what they want by forcing others?”). Proportion scores ranging from 0 to 1 were computed for each item (as with the bullying and victimization scores). Then, scores on the items were averaged for prosocial strategy use (Cronbach’s alpha = .70) and coercive strategy use (Cronbach’s alpha = .74).

*Social preference.* Children rated each classmate on a 7-point interpersonal liking scale ranging from -3 (strongly dislike) to +3 (strongly like). Sympathy and antipathy scores were then computed as the total of all positive numbers received and the total of all negative numbers received, respectively (Maassen, Akkermans, & Van der Linden, 1997). Social preference was determined by subtracting the standardized antipathy score from the standardized sympathy score and again standardizing the result within school class (cf. Coie, Dodge, & Coppotelli, 1982).

*Self-perceived social acceptance and global self-worth.* Self-perceived social acceptance and global self-worth were measured using subscales of the *Competentie Beleving Schaal voor Kinderen* (CBSK), a Dutch version of the Self-Perception Profile for Children (SPPC: Harter, 1985). Both subscales consisted of six items. Each item consists of descriptions of two children with contrasting characteristics, for example “some children are often dissatisfied with themselves” and “other children are quite satisfied with themselves”. Children have to choose which of these two descriptions fits them most and then report if this is “a bit true for me” or “definitely true for me”. This results in scores between 1 and 4 on each question. For the self-perceived social acceptance and global self-worth scales, the mean score of the six items was computed (Cronbach’s alpha = .78 for self-perceived social acceptance, Cronbach’s alpha = .81 for global self-worth).

*Depression.* The shortened version of the Revised Child Anxiety and Depression Scale (RCADS-25: Muris, Meesters, & Schouten, 2002) was used. Only the five items measuring depression were used in this study, because victimization seems to be most strongly related to depression (Hawker & Boulton, 2000). Children rated each item (e.g., “I feel sad or empty”) on a scale ranging from 0 (never) to 3 (always). The depression score was the mean of the five items (Cronbach’s alpha = .65).

## **Procedure**

Self-reports were completed during group testing sessions lasting approximately 30 minutes in length that were run by research assistants who were strangers to the children. Children were guaranteed their responses would be treated confidentially and anonymous. They were not allowed to discuss the questionnaire during or after completion and were reminded to give honest answers. Next, children were individually interviewed (peer nominations and peer ratings) in a quiet room by one of the research assistants in two separate 30 minute sessions. To ensure that the correct procedure was followed, each assistant was trained, written research protocols were developed, and interviews were administered using laptop computers. Children were furnished with a list of their classmates when making their nominations. There was no limit to the number of nominations, but children were not allowed to nominate themselves. In addition, children were permitted to answer “nobody” if they could not think of anyone to whom the description applied. For peer ratings, the names of classmates were presented in random orders to prevent presentation order from affecting the results. During the whole procedure, the research assistants stressed the confidentiality of the provided information several times. Children could stop their collaboration whenever they felt inclined to do so, but this never happened. Finally, teachers completed questionnaires at their own convenience. In order to meet teacher’s request for a shorter version, the original questionnaire was abbreviated (see reactive and proactive aggression).

## **Identification of groups**

For the identification of groups cutoff levels for the overall victimization, bullying and aggression scores were used. Overall victimization and bullying scores equal to or higher than .15 were used to classify children as high on bullying or victimization (Goossens et al., 2006). In the literature cutoff levels for identifying children as aggressive seem to be random, using scores ranging from 0 to 1 *SD* above and below the mean. For this study, cutoff levels are based on Schwartz (2000), where children were classified as low on aggression when they scored below the mean (i.e., *z*-scores smaller than 0) and as high on aggression when their score was equal to or greater than 0.5 *SD* above the mean. Schwartz (2000) decided to use these relatively lenient cutoff points because only a small number of victims had scores greater than 0.8 or 1 *SD* above and below the mean, which is also true for the present study (see Figure 1).

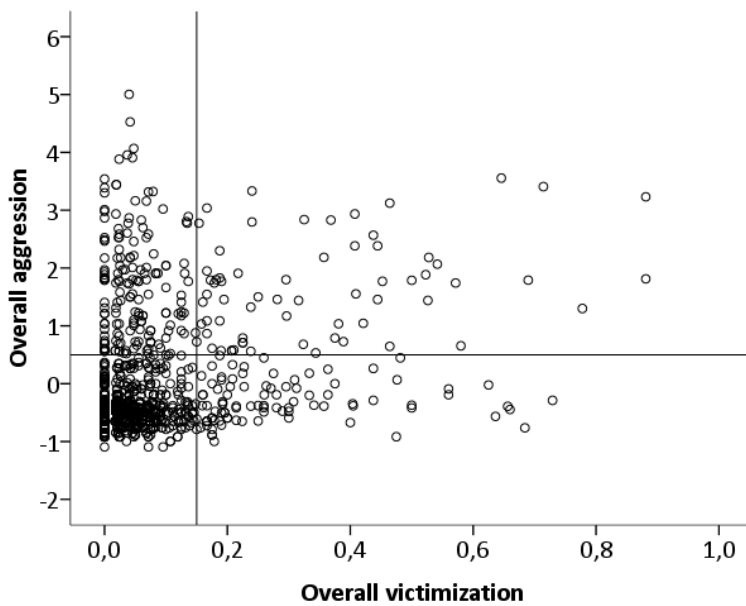


Figure 1. Scatterplot depicting the association between overall victimization and aggression scores. The reference lines at 0.15 and 0.5 illustrate the cutoff levels selected for subgroup membership. See text for further details.

Of the total sample ( $n = 1230$ ) there were 163 (13.25%) children identified as victims based on high overall victimization scores, for 159 of these victims aggression scores were also available. After this, the subgroups of victims were identified using overall bullying and aggression scores. Those victims scoring low on both bullying and aggression were classified as passive victims ( $n = 70$ , 5.69% of the total sample). Victims scoring low on bullying but high on aggression were classified as provocative victims ( $n = 43$ , 3.50% of the total sample). Those victims scoring high on bullying as well as aggression were classified as bully-victims ( $n = 23$ , 1.87% of the total sample). Thus, 23 of the 159 victims were not classified in one of the three subgroups.

The control group ( $n = 160$ , 13.01% of the total sample) consisted of noninvolved children. Only those children with scores smaller than .10 on each of the six roles (ringleader bully, assistant, reinforcer, outsider, defender or victim, see involvement in bullying and victimization) were classified as noninvolved. Finally, 123 children (10.00% of the total sample) were classified as being pure bullies. This group consisted of children who were not victims (i.e. with overall victimization scores below .15) and were classified as ringleader bullies, according to the identification of roles when a cutoff level of .15 was used.

## RESULTS

### Gender and subtype distributions

First, the distribution of girls and boys across the identified subgroups was examined. Although there were more girls in the passive victims group, and more boys in the provocative victims and bully-victims group (see Table 1), no significant difference in gender distribution was found across the subgroups,  $\chi^2 (2) = 2.42, p = .30$ . When analyzing the adjusted standardized residuals, no significant differences between cells were found either.

Table 1. *Gender distribution across subgroups of victims*

	Passive victims	Provocative victims	Bully-victims	Total
Boys				
n (%)	31 (44.9%)	25 (36.2%)	13 (18.8%)	69 (100.0%)
Girls				
n (%)	39 (58.2%)	18 (26.9%)	10 (14.9%)	67 (100.0%)

### Victim subtype differences in aggression, strategy use and social dominance

A MANOVA was conducted to examine victim subgroup differences across scores on aggression (reactive and proactive), resource control strategies (prosocial and coercive), resource control (RC: peer nominations, self-report and teacher report), and perceived popularity. There were significant correlations among all dependent variables, except for reactive aggression with self-reported resource control and perceived popularity (see Table 2). Gender was also added to examine an interaction effect of gender and victim subgroup on the dependent variables. Because the assumption of a normal distribution was violated scores on proactive aggression, reactive aggression, resource control teacher reports and prosocial resource control strategy were transformed using the RANKIT procedure.

Table 2. *Correlations among dependent variables (N = 1156)*

	2.	3.	4.	5.	6.	7.	8.
1. Proactive aggression	.58*	.35*	.49*	.33*	.09*	.34*	.21*
2. Reactive aggression	-	.18*	.36*	.15*	.01	.08*	.01
3. Prosocial RC strategies		-	.51*	.62*	.12*	.46*	.47*
4. Coercive RC strategies			-	.54*	.17*	.41*	.40*
5. RC: peer nominations				-	.21*	.57*	.70*
6. RC: Self-report					-	.23*	.25*
7. RC: Teacher report						-	.59*
8. Perceived popularity							-

\*  $p < .01$ , two-tailed

The MANOVA yielded a significant multivariate interaction effect of victim subgroup and gender, Wilks's  $\lambda = .86$ ,  $F(24, 755) = 1.63$ ,  $p = .03$ ,  $\eta^2_p = .05$ , as well as a significant main effect of victim subgroup, Wilks's  $\lambda = .22$ ,  $F(24, 755) = 21.83$ ,  $p < .01$ ,  $\eta^2_p = .40$ . The MANOVA was followed with a series of ANOVAs examining subgroup differences and interaction effects on each of the dependent variables. The interaction effect of subgroup and gender was only significant for proactive aggression and can be interpreted as a small effect,  $F(3, 267) = 2.72$ ,  $p = .05$ ,  $\eta^2_p = .03$ . For an illustration of this interaction effect see Figure 2. Simple main effect tests ( $t$ -tests) were conducted to interpret the interaction effect of victim subgroup and gender, results are shown in Table 3. Among passive victims and bully-victims girls had higher scores on proactive aggression than boys, and the difference almost reached significance among provocative victims.

Table 3. Summary of simple main effect tests for the differences on proactive aggression between boys and girls within the victim subgroups

	Boys			Girls			$t$	$df$	$p$	Cohen's $d$
	$N$	$M$	$SD$	$N$	$M$	$SD$				
Passive victims	31	-0.33	0.31	39	-0.09	0.42	-2.68	68	0.01	0.43
Provocative victims	25	0.46	0.72	18	0.90	0.75	-1.94	41	0.06	0.79
Bully-victims	13	0.70	0.46	10	1.14	0.71	-2.96	21	0.01	0.79
Control	83	-0.09	0.52	57	-0.01	0.62	-0.83	138	0.41	0.14

Note: all  $p$ -values are two-tailed.

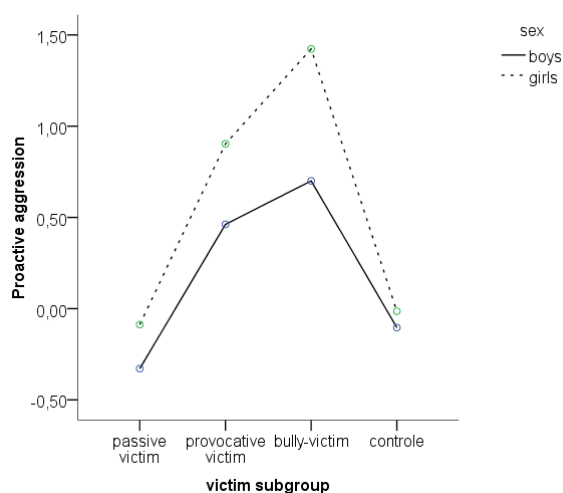


Figure 2. Profile plot showing the effects of victim subgroup and gender on proactive aggression.

Table 4. Summary of univariate analyses of victim subgroup differences in dependent variables

Variable	$F(3, 267)$	$\eta^2_p$	Mean (SD) by victim subgroup			
			Passive victim (a)	Provocative victim (b)	Bully-victim (c)	Control group (d)
Proactive aggression	48.90**	.36	-0.19 (0.39) <sub>bc</sub>	0.65 (0.76) <sub>ad</sub>	1.01 (0.68) <sub>ad</sub>	-0.07 (0.56) <sub>bc</sub>
Reactive aggression	67.58**	.43	-0.06 (0.63) <sub>bc</sub>	1.35 (0.60) <sub>acd</sub>	0.77 (0.81) <sub>abd</sub>	-0.07 (0.58) <sub>bc</sub>
Prosocial RC strategies	8.52**	.09	-0.34 (0.91) <sub>b†c</sub>	-0.10 (0.90) <sub>a†</sub>	0.51 (1.04) <sub>ad</sub>	-0.26 (0.80) <sub>c</sub>
Coercive RC strategies	58.18**	.40	0.02 (0.02) <sub>bc</sub>	0.03 (0.03) <sub>acd</sub>	0.13 (0.12) <sub>abd</sub>	0.01 (0.01) <sub>bc</sub>
RC: Peer nomination	11.66**	.12	-0.67 (0.70) <sub>bcd</sub>	-0.21 (0.67) <sub>ac</sub>	0.36 (0.90) <sub>abd</sub>	-0.31 (0.79) <sub>ac</sub>
RC: Self-report	3.84*	.04	1.03 (0.64) <sub>c†d</sub>	1.16 (0.54)	1.36 (0.51) <sub>a†</sub>	1.32 (0.61) <sub>a</sub>
RC: Teacher report	10.51**	.11	-0.77 (0.97) <sub>cd</sub>	-0.52 (1.03) <sub>c</sub>	0.30 (0.13) <sub>ab</sub>	-0.19 (0.78) <sub>a</sub>
Perceived popularity	36.14**	.29	-1.23 (0.90) <sub>cd</sub>	-0.98 (1.05) <sub>cd</sub>	0.05 (1.11) <sub>ab</sub>	-0.08 (0.68) <sub>ab</sub>

Note: Each subscript represents a subgroup (a = passive victims; b = provocative victims; c = bully-victims; d = control group). Means with a subscript are significantly different from those groups represented by the subscripts at  $p < .05$ , two-tailed. Subscripts followed by † were only significant at  $p < .05$ , one-tailed.

\*  $p < .01$ , \*\*  $p < .001$

As shown in Table 4 there were significant victim subgroup differences for all the dependent variables. Post hoc tests were conducted following each univariate test. The Games-Howell post hoc procedure was used because of heterogeneity of variances and unequal sample sizes, results are also shown in Table 4.

Consistent with hypotheses, passive victims were less proactively and reactively aggressive than both provocative victims and bully-victims, Cohen's  $d$  ranging from 1.37 to 2.32, and did not differ from the control group. As expected, provocative victims had higher reactive aggression scores than the other subgroups, Cohen's  $d$  ranging from 0.95 to 2.34, bully-victims had higher scores than passive victims and the control group on reactive aggression, Cohen's  $d$  of 1.37 and 1.38 respectively. No differences were found between provocative victims and bully-victims on proactive aggression, but both groups had higher scores than passive victims and the control group, Cohen's  $d$  ranging from 1.30 to 2.17.

Both passive and provocative victims had lower scores on perceived popularity than bully-victims and the control group, Cohen's  $d$  ranging from 1.07 to 1.52. Thus, the hypothesis that provocative victims were the least popular was only partially confirmed, no difference was found with passive victims. Results on resource control are not the same for self-, peer and teacher reports. According to the hypotheses bully-victims should have more resource control than passive victims and provocative victims. Indeed, higher scores were found compared to passive victims in all three reports, Cohen's  $d$  ranging from 0.56 for the self-report to 1.36 for the peer report, and compared to provocative victims for peer nominations, Cohen's  $d = 0.75$ , and teacher report, Cohen's  $d = 0.93$ . Also, for all three reports passive victims had lower resource control than the control group, Cohen's

*d* ranging from 0.48 for self report to 0.65 for teacher report. For further details see Table 4. Bully-victims were found to use prosocial as well as coercive resource control strategies more than passive victims and the control group, Cohen's *d* ranging from 0.91 to 2.97. Furthermore, they used coercive resource control strategies more than provocative victims, Cohen's *d* = 2.45. Provocative victims used prosocial and coercive resource control strategies slightly more than passive victims, Cohen's *d* of 0.28 and 0.34 respectively.

**Victim subtype differences in social preference, global self-worth, self-perceived social acceptance and depression.**

Another MANOVA was conducted to examine victim group differences, as well as an interaction effect of victim subgroup and gender, across scores on social preference, global self-worth, self-perceived social acceptance and depression. There were significant correlations among all dependent variables (see Table 5).

Table 5. *Correlations among dependent variables (N = 1217)*

	2.	3.	4.
1. Social preference	.15**	.24**	-.07*
2. Global self-worth	-	.47**	-.43**
3. Self-perceived social acceptance		-	-.35**
4. Depression			-

The MANOVA yielded a significant multivariate interaction effect of victim subgroup and gender, Wilks's  $\lambda = .89$ ,  $F(12, 744) = 2.72$ ,  $p < .01$ ,  $\eta^2_p = .04$ , as well as a significant main effect of victim subgroup, Wilks's  $\lambda = .56$ ,  $F(12, 744) = 14.97$ ,  $p < .01$ ,  $\eta^2_p = .17$ . The MANOVA was followed with a series of ANOVAs examining subgroup differences and interaction effects on each of the dependent variables. The interaction effect of subgroup and gender was significant for social preference,  $F(3, 284) = 3.11$ ,  $p = .03$ ,  $\eta^2_p = .03$ , self-perceived social acceptance,  $F(3, 284) = 6.56$ ,  $p < .01$ ,  $\eta^2_p = .07$ , and depression,  $F(3, 284) = 3.22$ ,  $p = .02$ . No significant interaction effect was found for global self-worth,  $F(3, 284) = 2.61$ ,  $p = .05$ ,  $\eta^2_p = .03$ . For an illustration of the interaction effects see Figures 3. Simple main effect tests (*t*-tests) were conducted to interpret the interaction effect of victim subgroups and gender, results are shown in Table 6. Among provocative victims, girls had significantly higher scores on social preference. Among passive victims girls had significantly lower scores on self-perceived social acceptance, while among bully-victims girls had significantly higher scores than boys. Finally, among passive victims, girls had significantly higher scores on depression than boys.



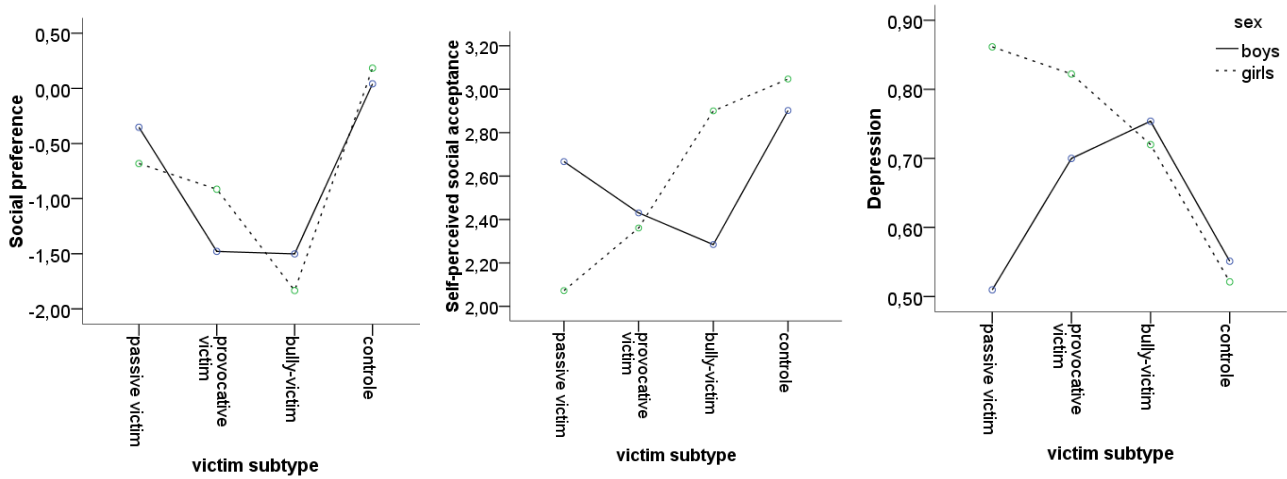


Figure 3. Profile plots showing the effects of victim subgroup and gender on social preference, self-perceived social acceptance and depression.

Table 6. Summary of simple main effects tests for the differences on social preference, self-perceived (s-p) social acceptance and depression between boys and girls within the victim subgroups

	Boys			Girls			<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>				
Social preference										
Passive victims	31	-0.35	0.93	39	-0.68	0.95	1.45	68	.15	0.40
Provocative victims	25	-1.47	0.83	18	-0.91	0.91	-2.09	41	.04	0.68
Bully-victims	13	-1.50	1.19	10	-1.83	0.73	0.77	21	.45	0.40
Control	92	0.04	0.75	68	0.18	0.67	-1.22	158	.22	0.17
S-p social acceptance										
Passive victims	31	2.67	0.80	39	2.07	0.75	3.20	68	<.01	0.88
Provocative victims	24	2.43	0.69	18	2.36	0.79	0.30	40	.76	0.10
Bully-victims	13	2.28	0.61	10	2.90	0.64	-2.34	21	.03	0.91
Control	90	2.90	0.65	68	3.04	0.59	-1.55	156	.12	0.21
Depression										
Passive victims	31	0.44	0.08	39	0.60	0.10	-2.72	68	<.01	0.37
Provocative victims	24	0.39	0.08	18	0.42	0.10	-1.14	41	.26	0.07
Bully-victims	13	0.48	0.13	10	0.50	0.16	0.16	21	.87	0.05
Control	90	0.55	0.36	68	0.50	0.16	0.46	156	.65	0.11

Note: all *p*-values are two-tailed.

As shown in Table 7 there were significant victim subgroup differences for all the dependent variables. Again, the Games-Howell post hoc procedure was used following each univariate test, results are also shown in Table 7. As expected, all three victim subgroups had lower scores on social preference and self-perceived social acceptance than the control group, Cohen's *d* ranging from 0.60 to 2.12. Furthermore, passive victims had significantly higher social preference scores than provocative victims and bully-victims, Cohen's *d* = 0.85 and 1.35 respectively. Bully-victims had lower global self-worth scores than the control group, Cohen's *d* = 0.73, between the other groups no differences were found. For depression, provocative victims had higher scores than the control group, Cohen's *d* = 0.48, between the other groups no differences were found.

Table 7. Summary of univariate analyses of victim subgroup differences in dependent variables

	<i>F</i> (3, 284)	$\eta^2_p$	Mean (SD) by victim subgroup			
			Passive victim (a)	Provocative victim (b)	Bully-victim (c)	Control group (d)
Social preference	50.63**	.35	-.54 (0.95) <sub>bcd</sub>	-1.24 (0.91) <sub>ad</sub>	-1.65 (1.01) <sub>ad</sub>	0.10 (0.72) <sub>abc</sub>
Global self-worth	4.37*	.04	2.96 (0.81)	3.05 (0.73)	2.71 (0.70) <sub>d</sub>	3.20 (0.59) <sub>c</sub>
S-p social acceptance	16.78**	.15	2.34 (0.82) <sub>d</sub>	2.40 (0.73) <sub>d</sub>	2.55 (0.69) <sub>d†</sub>	2.96 (0.62) <sub>abct</sub>
Depression	4.41*	.04	0.71 (0.56)	0.75 (0.40) <sub>d</sub>	0.74 (0.48)	0.54 (0.38) <sub>b</sub>

Note: Each subscript represents a subgroup (a = passive victims; b = provocative victims; c = bully-victims; d = control group). Means with a subscript are significantly different from those groups represented by the subscripts at  $p < .05$ , two-tailed. Subscripts followed by † were only significant at  $p < .05$ , one-tailed.

\*  $p < .01$ , \*\*  $p < .001$

Finally, a MANOVA was conducted to compare bully-victims and bullies on all dependent variables. Because there was a significant multivariate main effect, Wilks's  $\lambda = .70$ ,  $F(12, 124) = 4.39$ ,  $p < .01$ ,  $\eta^2_p = .30$ , a series of ANOVAs was conducted (see Table 8). No differences were found on reactive aggression, self-reported resource control, prosocial and coercive strategies, and depression. Bully-victims did have higher proactive aggression scores than bullies, for all other variables bullies had higher scores than bully-victims. No interaction effect with gender was found, Wilks's  $\lambda = .89$ ,  $F(12, 124) = 1.31$ ,  $p = .22$ .

Table 8. Summary of univariate analyses of differences between bullies and bully-victims in dependent variables

	Bully-victims ( $n = 116$ )		Bullies ( $n = 23$ )		ANOVA			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>df1,df2</i>	<i>p</i>	<i>d</i>
Proactive aggression	1.01	0.68	0.70	0.84	4.15	1, 135	.04	0.38
Reactive aggression	0.77	0.81	0.56	0.77	2.38	1, 135	.13	0.27
Prosocial RC strategies	0.51	1.04	0.78	0.88	2.91	1, 135	.09	0.30
Coercive RC strategies	0.13	0.12	0.11	0.10	1.12	1, 135	.29	0.20
RC: Peer nomination	0.36	0.90	0.91	0.84	8.29	1, 135	< .01	0.64
RC: Self-report	1.36	0.51	1.65	0.75	2.56	1, 135	.11	0.40
RC: Teacher report	0.30	1.13	0.73	0.98	4.13	1, 135	.04	0.43
Perceived popularity	0.05	1.11	0.84	0.93	11.73	1, 135	< .01	0.82
Social preference	-1.65	1.01	-0.64	1.13	20.33	1, 135	< .01	0.92
Global self-worth	2.71	0.70	3.26	0.62	10.94	1, 135	< .01	0.87
S-p social acceptance	2.55	0.69	3.18	0.64	17.16	1, 135	< .01	0.99
Depression	0.74	0.48	0.57	0.42	2.00	1, 135	.16	0.40

Note: all  $p$ -values are one-tailed.

## DISCUSSION

The purpose of this study was to further explore the assumption that there are three distinct, and theoretically important, subtypes of victims. Research questions were formulated, questioning whether passive victims, provocative victims, bully-victims and a control group of children who did not bully nor get victimized differed on a couple of variables. Furthermore differences in gender distribution as well as an interaction effect of victim subtype and gender were explored. Also, bully-victims were compared to pure bullies on all dependent variables.

Because research on bullying and victimization rarely included assessments of relational or indirect aggression, the number of girls across different subgroups may be systematically underestimated (Salmivalli & Peets, 2009; Schwartz et al., 2001). This study also included relational aggression measures as well as different forms of bullying and victimization. Although no differences in gender distribution across passive victims, provocative victims and bully-victims were found, there were slightly more girls among passive victims and slightly more boys among provocative and bully-victims. Furthermore, the total amount of female victims was equal to the total amount of male victims, while previous studies reported difficulty identifying enough female (provocative) victims for analyses (Schwartz, 2000; Schwartz, Dodge, Pettit, & Bates, 1997).

Current findings are consistent with the initial evidence of the existence of three groups of victims (Vermande et al., 2008); passive victims, provocative victims and bully-victims seem to be distinct groups. Passive victims were found to use little resource control strategies, including aggression, which is consistent with existing literature (e.g., Salmivalli & Nieminen, 2002; Vermande et al., 2008). No differences were found between passive victims and the control children on proactive aggression, reactive aggression, prosocial strategies and coercive strategies. Also, passive victims differed from provocative and bully-victims, who do use reactive aggression. This confirms the assumption that findings from some studies (e.g., Pellegrini et al., 1999; Salmivalli & Nieminen, 2002; Unnever, 2005) that passive victims were reactively aggressive can be explained because in those studies no distinction between passive and provocative victims was made, and as a result of that provocative victims were responsible for the scores on reactive aggression.

Consistent with hypotheses, passive victims were found to use few resource control strategies and to have low social dominance status. They have lower scores than bully-victims and the control group on perceived popularity as well as resource control. This is in line with Resource Control Theory (Hawley, 1999; Hawley, 2003), stating that children who do not use resource control strategies are lowest in social dominance. Lastly, passive victims were found to be better liked than provocative and bully-victims, but not as liked as and feeling less socially accepted than the control group.

Compared to passive victims, bully-victims and the control group, provocative victims were found to be the most reactively aggressive. They use coercive resource control more than passive victims and the control group, but less than bully-victims. Just as passive victims, provocative victims have low social dominance status, especially concerning perceived popularity. On resource control they seem only to differ from bully-victims, having less resource control. Thus, despite the fact that provocative victims do use aggression and resource control strategies, they have low social dominance status. This might be explained by their emotional and behavioural dysregulation (Schwartz, 2000) and confirms the view of provocative victims as ineffectual aggressors compared to bullies (Perry et al., 1992, as cited by Schwartz et al., 2001) and, to a lesser extent, bully-victims.

Bully-victims did use proactive as well as reactive aggression and prosocial as well as coercive resource control strategies. They are more proactively aggressive than passive victims and the control group, but not as reactively aggressive as provocative victims. Consistent with Resource Control Theory (Hawley, 1999; Hawley, 2003) bully-victims had higher social dominance status (more resource control and more perceived popularity) than passive and provocative victims. Because bully-victims do bully they were expected to share some of the characteristics of bullies. Indeed, no differences were found between bully-victims and bullies on reactive aggression and resource control strategies in this study, but bully-victims were more proactively aggressive than bullies. These results are consistent with a study of Salmivalli and Nieminen (2002) in that bully-victims were even more aggressive than bullies. The results differ from a study of Unnever (2005), who found bully-victims to be less proactively, but more reactively aggressive. Once again, this can be explained by the fact that among those bully-victims were also provocative victims. Concluding, results suggest that bully-victims do use aggression as a means to get things done, but are not as effectual as bullies, which results in lower social dominance status and lower social preference.

Some interaction effects of gender and victim subgroup were found. It seems that when girls in the passive victim and bully-victim subgroup use aggression, it is more likely to be proactive than when boys in these subgroups use aggression, which is consistent with findings of Polman et al. (2009). However, no gender difference in the distribution of victim subtypes was found. Among passive victims girls are less liked than boys. This might be explained by the fact that they use more proactive aggression, because Polman et al. (2009) found that social preference was negatively related to proactive aggression. Among passive victims, boys did feel more socially accepted than girls, while among bully-victims girls did feel more socially accepted. Again, the fact that scores on proactive aggression were highest for bully-victim girls could partially explain those differences. For depression especially passive victim girls are at risk. Previous literature has been ambiguous, both suggesting girls report more depression than boys (Craig, 1999, as cited by Swearer et al., 2001) and suggesting boys and girls experience similar patterns of adjustment problems (Toblin et al., 2005).

This study has strengths but also some limitations that should be considered in interpreting the findings. A strength of this study is the inclusion of different forms of bullying as well as different forms and functions of aggression. Also, self-reports as well as peer nominations and teacher reports were used for different variables, which avoids shared method variance as an alternative explanation of significant results. As Hawker and Boulton (2000) point out, when the same method is used to assess outcome and predictor variables (in this case victimization and depression), results could be explained partly by the fact that measurement variance is shared between the two variables.

One of the limitations is that the depression scale used in this study had a modest Cronbach's Alpha of .65, which may have impacted the results. Furthermore, teacher reports were used to measure aggression. It could be that teachers did not have an accurate view on aggression of the children. Some aggressive behaviour might not be noticed by teachers or teachers may have a bias against or in favour of children. Good discriminant, convergent, and construct validity of the IRPA was confirmed, but Polman et al. (2009) point out it is not yet clear how teacher ratings are related to self, peer, and parent ratings. Also, Salmivalli and Nieminen (2002) concluded that peers and teacher were more in agreement about children's reactive than proactive aggression and suggest that reactive aggression might be more salient and visible to teachers, while a considerable portion of proactive aggression might take place in peer-to-peer interactions.

Findings of this study have potential clinical implications. Bullying is a common form of violence among children and has negative consequences for victims and probably for bullies and observers as well (Stassen Berger, 2007). There are interventions to prevent and decrease victimization itself as well as negative consequences. If there are different subtypes of victims, as this study points out, different victims will benefit from different interventions. It might be important to determine the subtype of victimization to choose the most appropriate intervention strategy. For children using reactive aggression, an adequate strategy for treatment is learning how to cope with anger and not to see others' intentions as hostile and threatening (Polman et al., 2009). Because provocative victims especially use reactive aggression, they might best be helped with interventions aimed at enhancing social skills and anger management. Because passive victims are found to have low rates of socially skilled assertive behaviour (Schwartz, 2000), they might be better helped with interventions aimed at enhancing assertiveness and social defensibility. Intervention for bully-victims is probably the most complicated, because they use reactive as well as proactive aggression and have relatively high social dominance status. Proactive aggression is learned behaviour that can be changed through the use of operant techniques (Vitiello & Stoff, 1997, as cited by Polman et al., 2009). Another possibility is to decrease the social dominance status of bully-victims, for example by classroom based interventions against bullying.

All in all, this study confirms the initial evidence regarding the existence of three distinctive subtypes of victims. Passive victims are characterized as nonaggressive with low social dominance status. But they are better liked than bully-victims, who tend to be proactively as well as reactively aggressive and have high social dominance status compared to other victims. The third subtype comprises provocative victims, who are especially reactively aggressive and have lower social dominance status than bully-victims. Furthermore they are at higher risk for depression than control children. Taken together, results of this study help highlight the theoretical significance of behavioural heterogeneity among victims of bullying. Future research should further examine differences between those three subtypes of victimization.

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