KINDERGARTEN CHILDREN INVOLVED IN BULLYING:
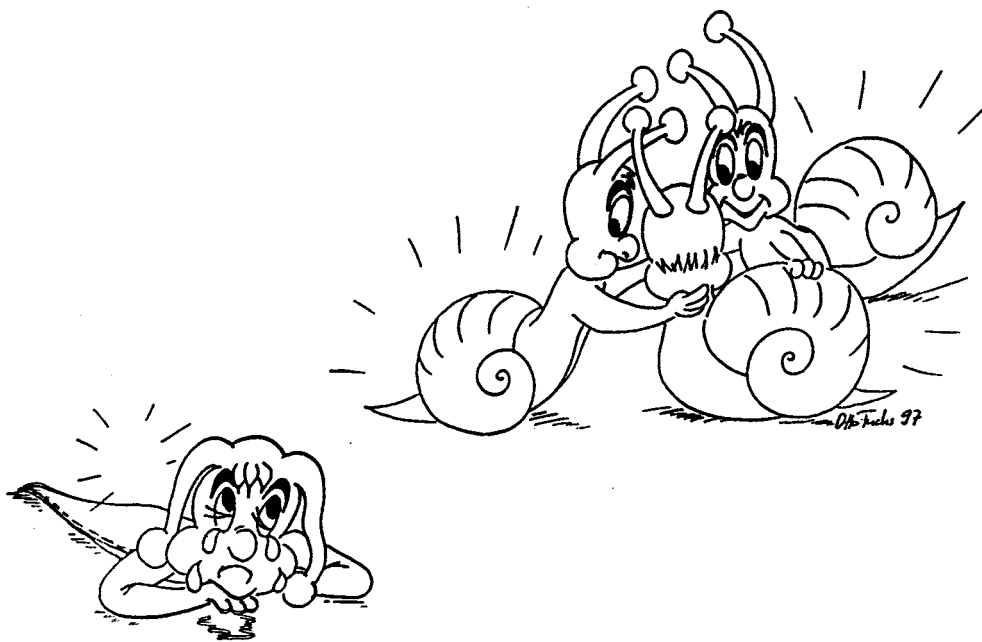
SOCIAL BEHAVIOR, PEER RELATIONSHIPS, AND SOCIAL STATUS

Von der Philosophisch-historischen Fakultät
auf Antrag von Prof. Dr. Françoise D. Alsaker
und Prof. Dr. Margit Oswald angenommen.

Bern, den 7. Juli, 2000   Der Dekan: Prof. Dr. Wolfgang Pross

Vorwort

Vor drei Jahren erhielt ich Gelegenheit als Doktorandin im NFP40 Projekt 'Das Plagen im Kindergarten' von Frau Professor Françoise D. Alsaker einzusteigen. In diesem Projekt wurde nicht nur ein aktuelles Thema untersucht, sondern es wurden auch auf geschickte Art und Weise wissenschaftliche und praxisorientierte Anliegen miteinander verbunden. In diesem Sinne möchte ich mich bei Françoise Alsaker bedanken, zum einen dafür, dass ich mich an ihrem Projekt beteiligen durfte und insbesondere auch für ihre kompetente und hilfreiche Betreuung meiner Dissertation.

Weiter möchte ich mich bei den ProjektmitarbeiterInnen Stefan Valkanover, Kathrin Hersberger, Flavia Tramanzoli und Dr. Igor Arievitch und bei allen anderen, welche bei der Datenerhebung mitgearbeitet haben, für die gute Zusammenarbeit bedanken. Ein Dankeschön auch an Professor August Flammer sowie an die Mitglieder und Doktorierenden des Lehrstuhls für Entwicklungspsychologie und Entwicklungs-störungen (PEDES) der Universität Bern, welche in diversen Forschungsgruppen und/oder Doktorandenblöcken immer wieder zu interessanten Fachdiskussionen bereit waren. Im Rahmen des Projekts wurden Frau Professor Debra J. Pepler und Professor Lothar Krappmann zu einem wissenschaftlichen Austausch nach Bern eingeladen, von welchem ich auch für meine Dissertation profitieren konnte.

Im Herbst 1998 hatte ich die Möglichkeit, in nordamerikanischen Universitäten zu 'schnuppern'. Hiermit möchte ich Frau Professor Debra J. Pepler (York University, Toronto - CA) und Frau Professor Nicki R. Crick (University of Minnesota, Minneapolis - USA), sowie ihren jeweiligen MitarbeiterInnen für die herzliche Aufnahme und die intensiven fachlichen Diskussionen danken. Ausserdem konnte ich während dieses Aufenthalts mit Frau Professor Wendy M. Craig und Professor Anthony D. Pellegrini einige Aspekte meiner Studie diskutieren.

Zudem möchte ich noch meinem Lebenspartner und meiner Familie für ihre Unterstützung meinen Dank aussprechen. Ein ganz spezielles Dankeschön gebührt Eveline Gutzwiller-Helfenfinger, welche mich auf verschiedenen Ebenen unterstützt hat: Durch ihre Bereitschaft immer wieder verschiedenste Aspekte meiner Dissertation zu diskutieren, durch ihre kompetenten Sprachkorrekturen, und nicht zuletzt auch durch ihre Freundschaft.

Ich hoffe, dass diese Dissertation nicht nur neue wissenschaftliche Erkenntnisse hervorbrachte, sondern dass sie auch Implikationen für die Praxis hat. Die Einsicht, dass Plagen in den Kontext der Gleichaltrigenbeziehungen eingebettet ist, bietet verschiedene Ansatzpunkte für die Prävention. In diesem Sinne hoffe ich, dass diese Arbeit auch möglichst vielen Kindern zugute kommt. Denn der Kindergarten sollte nicht ein Ort sein, an dem Kinder ausgeschlossen und geplagt werden, sondern ein Ort, an dem Kinder mit anderen Kindern spielen und lernen können, Freunde finden und glücklich sein dürfen.

Basel, Frühling 2000   Sonja Perren

Contents

Abstract

This dissertation was part of a NFP/PNF40 project, whose goals were to investigate the phenomenon of bullying and its prevention. This study focused on the phenomenological part of the project and aimed at investigating the relations between bullying, social behavior, peer relationships, and social status.

344 children (154 girls and 190 boys), aged five through seven, from 18 kindergartens in Berne participated. A multi-method approach was used. Children and teachers were interviewed. Further, teachers completed a questionnaire on each child. Additionally, naturalistic observations were carried out in three of the participating kindergartens involving 11 focal children.

Children were categorized as bullies (11%), victims (6%), bully-victims (10%), non-involved (47%), and mixed (17%) by means of teacher ratings and peer nominations. Further, peer and teacher nominations were used to establish negative interaction dyads. Children's social behavior patterns (aggressive behaviors, social skills, assertiveness, withdrawal) were assessed by means of teacher ratings and complemented by observational results. Peer relationships encompassed (dyadic) friendships and social clusters. Friendships and best friendships were assessed by means of reciprocal peer nominations. Social cluster mapping technique was used to establish social clusters. Moreover, peer nominations, teacher ratings, and social cluster mapping technique were used to assess children's social status.

Analyses revealed that bullying was an everyday occurrence in kindergarten and affected not only children directly involved in bullying but also the whole peer group. Boys bullied more frequently than girls, but were also more often victimized. Boys bullied more often by physical, verbal, and object-related means. Exclusion as a form of bullying was equally likely for boys and girls. Boys were mainly victimized by other boys, whereas girls were bullied by both boys and girls. Older children were more often categorized as being bullies, whereas younger children (at least the boys) were more often victimized. Children were mainly bullied by older or same-age peers and rarely by younger children.

Bullies, bully-victims, and victims displayed clearly distinct social behavior patterns. Bullies were overtly and verbally/indirectly aggressive. They were less cooperative and prosocial than non-involved children, but they were very sociable. Moreover, bullies were often leaders and had no problems to set limits. Furthermore, bullies were neither introverted nor actively isolated by their peers. Victims displayed

exactly the opposite behavior patterns. They were not all aggressive. Further, they scored high on cooperativeness and prosocial behaviors, but were less sociable than non-involved children and bullies. Victims lacked leadership skills and had problems to set limits. Moreover, they frequently displayed withdrawing behavior. Bully-victims displayed mixed behavior patterns. Most features paralleled bullies' social behavior patterns. They were highly aggressive, even more overtly aggressive than bullies. Further, they were not cooperative and prosocial, but very sociable. Bully-victims did not score lower on leadership or setting limits than non-involved children. However, further analyses revealed that male bully-victims also showed - in comparison to bullies - submissive behavior patterns. Although bully-victims were not introverted, they were often isolated by their peers.

Bully-victims and victims had poor peer relations. They frequently had no friends. Teachers rated them as having fewer playmates and as having less often a close friend. Additionally, some victims and bully-victims were also victimized by their friends. In contrast to victimized children, bullies were well embedded in their peer group. They had many friends and belonged to larger social clusters than non-involved children. Aggressive children tended to affiliate. Bullies (particularly male bullies) were often friends with other bullies. Moreover, bully-victims and bullies often belonged to the same social cluster. Victims and bully-victims had a low social status, whereas bullies were quite popular.

Victims and bully-victims probably have distinct pathways to victimization. Submissiveness and withdrawal were associated with being a victim, whereas overt aggression and submissiveness (at least for boys) were related to being a bully-victim. However, for bully-victims as well as for victims having no friends and low social status were potential social risk variables which were also related to victimization.

Having a best friend and social status moderated the relation between introversion and being a victim. Introversion was found to be a potential risk factor for victimization, only for the children who had no best friend. For bully-victims, low social status mediated the relation between overt aggression and victimization. Assumedly, overt aggression leads to low social status which in turn may contribute to victimization.

In conclusion, bullying or victimization cannot be considered as individual characteristics of certain children, but are embedded in the peer group context.

1 Introduction

"My 5 year daughter is being bullied by a 5 year old boy in her classroom. He insists she sit next to him on the bus and then punches her all the way to school. He has aggressively told her she is his girlfriend and if she won't be he will take his dad's gun and kill her. If he misses with his dad's gun he will black her eyes so she can't see. We have already tried a meeting with the teacher and feel very desperate at this point." [1]

Entering kindergarten[2] is a very exciting and far-reaching developmental step for most children. On the one hand, children enter 'public space' for the first time (Colberg-Schrader & von Derschau, 1991) and form relationships with adults other than their parents and relatives. More importantly, children meet same-age peers - they encounter their first peer group. Peer relationships are important for children's development (Hartup, 1989b; Rubin, 1990). Harris (1995) even postulates that the peer group has more important socialization effects than the family. For some children, this first peer group provides mainly positive experiences. They will have satisfactory peer relations, such as having friends or being liked. For other kindergartners, the contact with their first peer group may be a painful experience, e.g. when they are victimized by their peers.

There is an increasing interest in the issue of bullying and victimization. The incidence of bullying has been investigated in many countries on different continents (see Smith, Catalano, Morita, Junger-Tas & Olweus, 1999). However, most studies involved school-age children and adolescents. Only two studies were carried out among younger children (Alsaker, 1993; Kochenderfer & Ladd, 1996). Nevertheless, it can be assumed that bullying is a problem to be taken seriously already in kindergarten (Alsaker, 1997b). Being a victim of peer aggression has serious short-term and long-term effects. Victims have higher levels of depression in adult age (Olweus, 1994). Victimization in kindergarten is a precursor of children's loneliness and school avoidance (Kochenderfer & Ladd, 1996). In addition, victims have relatively low self-esteem, are isolated and lonely, report worse than average health, and frequently

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[1] Advice inquiry by a concerned mother on Internet. Child Psychology Message Board: (http://www.ahealingplace.org/childboard/childboard.shtml)

[2] In Switzerland, kindergarten is the most important educational institution for preschool children. Even though kindergarten is not compulsory, 99% of all children are enrolled in kindergarten at least during the year before entering school (Bundesamt für Statistik, 1995).

think about suicide (Rigby, 1996). Therefore, the investigation of bullying during kindergarten years as well as its prevention must receive special attention.

In order to investigate bullying in kindergarten a project was realized. The aims of the project *"Bullying in Kindergarten"* [3] were two-fold. First, it was aimed at investigating the phenomenon of bullying in kindergarten and its correlates. Second, a prevention program was designed, implemented and evaluated.

Bullying as a social phenomenon cannot be considered without taking into account the social context. As bullying occurs among peers, the peer group constitutes the most important social context. Thus, the present dissertation aims at integrating the issue of bullying with other aspects of the peer group. The focus is on the social behavior patterns of children involved in bullying as well as their peer relations, such as friendships and social status.

The emergence of victimization is a complex social phenomenon (see Chapter 2: *Bullying - Concepts and Facts*). On the one hand, children display a certain behavior pattern which predisposes them to being victimized or to becoming a bully. However, bullying is always an interactive process which is embedded in the peer group context. Peers may directly and indirectly promote or reduce the occurrence of bullying. Aggressive children tend to affiliate with each other and may thus reinforce each others' bullying behavior. Children who have best friends in class may be protected against being victimized. A low social status may place children at risk for being a victim. Moreover, children who have behavioral vulnerabilities may not be victimized if they have a high social status or friends. In conclusion, I conceptualize bullying as an interaction pattern between individuals which unfolds within its social context.

In my work I distinguish between three levels which tap different aspects of the social context. First, the *individual level* addresses the social behavior patterns of children involved in bullying (Chapter 3: *On Bullies and Victims - Distinctive Social Behavior Patterns*). Second, the *dyadic level* considers dyadic relationships between bullies, victims and other peers (Chapter 4: *Peer Relationships of Bullies and Victims*). Third, the *group level* describes the relation between a child's social status in his or her kindergarten group and bullying and victimization (Chapter 5: *Social Status of Bullies and Victims*). Lastly, I describe how these three levels might interact and contribute to being victimized (Chapter 6*: Individual and Social Risk - Integration of Levels of Complexity*).

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2   Bullying - Concepts and Facts

2.1   *Bullying - Defining Elements and Forms*

Bullying[4] is not a new phenomenon. In classic literature it is possible to find many fictional and non-fictional accounts of occurrences that constitute bullying (e.g. Golding, 1965: Lord of the flies). However, from a research perspective bullying is a rather modern topic. Not until the 1970s did investigators turn their interest toward this serious relational problem. Starting in Scandinavia (Heinemann, 1972; Olweus, 1973, both cited in Ross, 1996), investigators all over the world became interested in the topic. Until now, research and prevention efforts have been carried out in various countries, e.g. Great Britain, Canada, Switzerland, Japan, Australia and the USA (for a review see Smith et al., 1999). Most research on bullying is based on Olweus and collaborators.

   Bullying is a subcategory of aggressive behavior (Smith, 1991). As there are several ways of defining aggression, I will use the definition presented by Parke and Slaby (1983): "...aggression is defined in a minimal way as a behavior that is aimed at harming or injuring another person or persons" (p. 550). This definition of aggressive behavior has two major features: first, the potential harm of an action, and second, the intentionality of this act. In contrast to this very broad definition, bullying has several additional features which distinguish it from other aggressive acts. Olweus (1994) defined bullying as follows: "A person is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons." (p. 98). He defined negative actions as behaviors that intentionally inflict, or attempts to inflict, injury or discomfort upon other persons. This corresponds with the definition of aggression. However, there are several features in this definition which allow us to distinguish bullying from 'mere' aggressive behavior.

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[4]   I will use bullying and victimization interchangeably, but the term bullying will be used to emphasize more the actors' view point, whereas victimization focuses on the target.

One important defining feature of bullying is that the behavior is repeated over time. Although there is some debate as to whether the repeated occurrences are necessary to label aversive behaviors as bullying (e.g. Ross, 1996), the temporal criterion is often used to exclude 'non-serious' events, especially for research purposes. In fact, all acknowledged investigators in this field of research include the repetitiveness of negative actions in their definitions of bullying or victimization (Smith & Sharp, 1994; Rigby, 1996; Craig & Pepler, 1995; Kochenderfer & Ladd, 1996; Perry, Kusel & Perry, 1988).

Moreover, Olweus (1994) stressed that the terms bullying or victimization should not be used when two persons of approximately the same strength are fighting or quarreling. Instead, there should be an imbalance of strength or an asymmetric power relationship between the bully and the victim. The person who is victimized has problems to defend him- or herself, as he or she is (physiologically or psychologically) weaker. Most researchers agree that power asymmetry is an important defining characteristic of bullying. Smith and Sharp (1994) describe bullying as systematic - repeated and deliberate - abuse of power. Likewise, Rigby (1996) characterizes bullying as "repeated oppression, psychological or physical, of a less powerful person by a more powerful person or group of persons" (p. 15). Correspondingly, Craig and Pepler (1995) define bullying as "a form of aggressive interaction in which a more dominant individual (the bully) repeatedly exhibits aggressive behaviour intended to cause distress to a less dominant individual (the victim)" (p. 81). However, not all investigators consider power asymmetry as a necessary element in the definition of victimization. For example, Kochenderfer and Ladd (1996) or Perry et al. (1988) defined victimization more broadly as a form of abuse in which children are frequently the recipients of peers' aggressive behavior.

In sum, the repeated exposure of a child to negative actions is defined as bullying. Those negative actions include many different bullying forms, ranging from direct bullying – with relatively open attacks on the victim - to indirect bullying such as social isolation and exclusion from a group (Olweus, 1994). The inclusion of more subtle acts of aggression served as a necessary step to fully grasp the phenomenon. Bullying, which is aimed at humiliating the victim, always has psychological components, even when the visible behavior is physical aggression. Probably, the humiliation itself hurts the victim more than physical pain. Moreover, Alsaker (1997a) found that isolation is, besides direct bullying, a powerful victimization technique. As

described above, bullying involves a power asymmetry between victim and bully. Exclusion and other indirect aggression forms require status and power. Only the powerful can exclude the others and damage relationships. Thus, indirect bullying forms may be particularly relevant to investigate.

In contrast to bullying research which uses a definition which includes indirect forms of aggression, traditional aggression research focuses on physical aggression. This is also reflected by the fact, that most studies involved only boys (Crick, Werner, Casas, O'Brien, Nelson, Grotpeter & Markon, 1999). Now, a shift of focus can be observed. Concepts such as relational, indirect, and social aggression were recently included in the discussion on aggression. Galen and Underwood (1997) defined social aggression as actions directed at damaging another's self-esteem, social status, or both, and included behaviors such as facial expressions of disdain, cruel gossiping, and the manipulation of friendship patterns. Relational aggression is defined as behaviors that harm others by damaging (or by threatening to damage) social relationships, feelings of acceptance, friendship, or group membership (Crick & Grotpeter, 1995). With regard to the concept of indirect aggression, there seems to be considerable confusion in literature (Björkqvist, Österman & Kaukiainen, 1992). The definitions range from covert behaviors in which the target is not directly confronted (Buss & Durkee, 1957) to social manipulation (Lagerspetz, Björkqvist & Peltonen, 1988, both cited in Björkqvist, Österman et al., 1992). Besides differences of definition, the authors agree that when investigating female aggression, it is important to consider other forms of aggression than merely physical ones. The manipulation of relationships, gossiping, negative facial expressions, or other indirect means deserve the label 'aggression' because they are aimed at hurting others. In fact, children perceive these forms of behavior as being hurtful (Galen & Underwood, 1997; Crick, Bigbee & Howes, 1996).

In sum, bullying involves direct as well as indirect forms including physical, verbal and non-verbal negative actions. Rigby (1996) proposed a classification of bullying forms (see Table 2.1), but he also noted that in practice these various forms often occur together.

Table 2.1:   A classification of forms of bullying (Rigby, 1996, p. 20)

| | Forms of bullying | |
	Direct	Indirect
Physical	• Hitting • Kicking • Spitting • Throwing stones	• Getting another person to assault someone
Non-physical Verbal	• Verbal insults • Name calling	• Persuading another person to insult someone • Spreading malicious rumours
Non-verbal	• Threatening and obscene gestures	• Removing and hiding belongings • Deliberate exclusion from a group or activity

2.2   Bullying and Related Constructs

There are related constructs in psychological research which should not be confused with bullying, namely conflicts, dominance, rough-and-tumble play, and rejection.

Olweus (1994) emphasized that fighting and quarreling between children are not considered as bullying. Nevertheless, in real-life situations confusion is possible. In kindergarten, conflicts among children are frequent. It may be difficult for the teacher to differentiate whether the occurrence is 'only' a conflict or whether it constitutes bullying. Shantz (1986) defined conflicts as a type of interpersonal interaction whereby two children are in disagreement. Conflicts may be painful for the participants and they may involve aggressive acts, but aggression is neither sufficient nor necessary to define conflicts (Shantz & Hobart, 1989). Although conflicts and bullying are two separate concepts, there may be some overlap, e.g. conflicts that are always 'resolved' for the benefit of the same child should probably be viewed as bullying. The differentiation between conflicts and bullying is important because conflicts are viewed as a necessary part of the socialization process. Shantz and Hobart (1989) even proposed that experiencing conflicts is a process that contributes to social development. Thus, confusing conflicts and bullying may result in the overlooking of victimization episodes and in the attitude that children should resolve their problems themselves.

Bullying includes the wish to dominate others. Nevertheless, bullying should not be confused with establishing dominance hierarchies. In ethological studies, dominance hierarchies are emphasized as a form of social organization in peer groups (e.g. McGrew, 1972). Smith and Boulton (1990) stated that the concept of dominance was initially developed and discussed in relation to animal behavior. It is viewed as a social mechanism whereby individuals assume a certain rank within their group. It was found that - among non-human primates - dominance hierarchies serve to regulate aggression in groups (Parke & Slaby, 1983). Similarly, Nickel and Schmidt-Denter (1980) observed a reduction of conflicts among preschool children when the dominance hierarchy was established. However, Dodge, Price, Coie and Christopoulus (1990) doubted that children's aggression is ordered in dominance hierarchies. The hierarchical structure would suggest that the rate of aggression toward a peer is uncorrelated with the rate of being the target of this particular peer. However, Dodge, Price et al. (1990) found that in boys' groups aggressive behaviors were reciprocated at a very high level. Most aggression episodes occurred within a dyadic context, i.e. within asymmetrically or reciprocally aggressive dyads. Moreover, maintaining dominance is achieved by picking on individuals with similar strength (Smith & Boulton, 1990) and not on weaker ones as in case of bullying. Thus, bullying should not be considered as a 'natural' way of establishing dominance hierarchies which will cease by itself as soon as the hierarchy has been established.

Nonetheless, bullying and dominance are interrelated. Coie, Dodge, Terry and Wright (1991) presume that bullying may involve different goals: humiliation and abuse versus establishing dominance in the peer group. Furthermore, Craig and Pepler (1995) suggested that for boys, involvement in bullying may be necessary to establish dominance (see also Chapter 3.2).

Rough-and-tumble play, i.e. playful fighting, may also be a means of establishing dominance, but it should not be considered as bullying or aggression. On the contrary, children may exercise certain social skills during rough-and-tumble play (Smith & Boulton, 1990; Pellegrini, 1988). Yet, the same authors also found that rough-and-tumble play may be used in socially manipulative ways (Smith & Boulton, 1990) and that for some children rough-and-tumble play often leads to aggression (Pellegrini, 1988). However, Smith and Boulton (1990) also found that children are able to differentiate between rough-and-tumble play and serious fighting. Correspondingly, Blurton Jones (1972) found that observers can clearly differentiate between aggression

and playful fighting, and he cautioned against confusing these two concepts. The confusion of rough-and-tumble play with bullying may lead to the consideration that bullying constitutes a harmless, playful activity. This tendency can be seen in some German studies (e.g. Oswald, 1999; Krappmann, 1994). Nevertheless, there is no use in a further watering down behaviors that would be treated as criminal offence if performed by adults (Ross, 1996).

In addition, peer rejection is related to victimization, but these concepts are not identical. Rejected children are children who are not liked, and very much disliked by their peers (Coie, Dodge & Coppotelli, 1982). Several studies showed that victims tend to be rejected (e.g. Perry et al., 1988; Crick & Bigbee, 1998; Smith, Bowers, Binney & Cowie, 1993). However, the fact that someone is rejected does not necessarily mean that the person is being repeatedly exposed to negative behaviors (Schuster, 1996). I will give a more detailed account of the relation between victimization and social status in Chapter 5.

2.3   Occurrence of Bullying and its Assessment

In most studies on bullying, children are categorized as bullies or victims. The identification of children as bullies and victims reflects the implicit attitude that bullying and victimization represent a problem only for some children. However, even those children not categorized as bullies may on occasion bully others, e.g. as the bully's assistant or by being an actor in indirect forms of aggression. Similarly, children categorized as non-involved may once or twice be victims of peer aggression, but this would only be called bullying if the behavior continues, i.e. when it occurs with a certain frequency. Moreover, Hoover, Oliver and Hazler (1992) indicated that the majority of individuals (77%) were familiar with the experience of being terrorized by other persons.

The question arises whether it is necessary to categorize individuals or whether bullying and victimization should rather be viewed as a continuum. There are studies which only assessed linear associations between victimization and other variables (e.g. Perry et al. 1988; Schwartz, 1995). Pellegrini, Bartini and Brooks (1999) even applied both approaches: on the one hand, they performed correlational analyses, on the other hand, they analyzed group differences based on categorization of individuals. Although linear associations between bullying or victimization and other variables may yield similar results, most studies rely on the categorization of individuals. Hinde

and Dennis (1986) proposed the categorizing of individuals as an alternative to linear analysis. They demonstrated that the employment of correlational methods may lead to conclusions which are not equally applicable to all individuals. For example, only extremely high or low scores of the independent variables may be related to the dependent variable. Further, categorization procedures may facilitate the examination of individual cases (Hinde & Dennis, 1986).

The way of identifying children as being involved in bullying and victimization varies greatly among different studies. The identification of extreme cases, i.e. bullies and victims, is a crucial point in bullying research. The procedure chosen has a major impact on the subsequent analyses and results. At this point it is important to state that the dichotomy of bullies and victims is an oversimplification. Various subgroups of bullies and victims can be distinguished (Ross, 1996). The most important differentiation involves the victims. Several studies have shown that there are two types of victims, aggressive and non-aggressive (e.g. Perry et al., 1988, Olweus, 1978; Smith, 1991). We will refer to the aggressive victims as bully-victims (see Chapter 3).

The standard assessment procedure is based on Olweus (1978; 1991). The self-report questionnaire he used involves questions on bullying and victimization. First, a definition of bullying is provided which ensures a clear comprehension of the concept. Next, children are asked how often they were bullied or how often they engaged in bullying during a certain time period (e.g. this spring). The response alternatives ranged from *never* to *several times a day*. To establish the percentage of victims and bullies, a cut-off point of *about once a week* (or *now and then*[5]) was used. Thus, the percentage of bullies and victims reported refer to children who were victimized or who bullied others *once a week* (or *now and then*) or more frequently. Several investigators used the same procedure (e.g. Boulton & Underwood, 1992; Whitney & Smith, 1993). The prevalence rate for victims (victimized *once a week* or more often) ranges from 2% to 27% depending on country and age of participants. Likewise, the percentage of bullies covers the range from 1% to 22% (for a review see Jost & Zbinden, 1999; Schuster, 1996; Whitney & Smith, 1993).

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[5] In some studies, *now and then* or *sometimes* are also used as cut-off points, which obviously results in higher percentages of bullies and victims (e.g. Olweus, 1991; Whitney & Smith, 1993; Boulton & Underwood, 1992).

The number of victims is usually higher than the number of bullies (e.g. Whitney & Smith, 1993; Olweus, 1978; Boulton & Underwood, 1992). This may be a methodological artifact due to attributional biases, e.g. hostile attributions and social desirability effects (Craig, Pepler & O'Connell, 1998). As Schuster (1996) argued, most researchers use self-report without a theoretical or methodological rationale and there is no evidence that this procedure is particularly reliable. Cairns and Cairns (1986) differentiated between ipsative and normative information. Self-reports mainly yield *ipsative information* which tells us about an individual's perception of his or her experiences. In contrast, *normative information* is relative to one's peer group and can be derived from peers and teachers.

Although teachers may have a quite good insight into the problem, they probably underestimate the frequency (Rigby, 1996). This may be due to the fact that most bullying occurs on - unsupervised - playgrounds (Whitney & Smith, 1993; Olweus, 1995). However, one of the advantages of relying on a teachers' judgement lies in the teacher's knowledge of the children's behavior in relation to their peers. As teachers have a broad social comparison and normative perspective, their ratings may be less susceptible to systematic biases than self-ratings (Craig et al., 1998). Only few studies are based on teacher's view (e.g. Siann, Callaghan, Lockhart & Rawson, 1993). However, there are several studies which combined teacher ratings with other informants (e.g. Perry et al., 1988; Pellegrini & Bartini, 1998; Craig et al., 1998) (see below).

Peers are probably the best informants with regard to bullying, because they have the opportunity to observe such events over a longer period of time. They may be conceived as 'participant observers'. In fact, peers - at least some of them - were found to be present in most bullying episodes, thus they may be well informed as to who are the bullies and the victims (Craig et al., 1998). Therefore, peer nominations and peer ratings are used as alternatives to self-report questionnaires. Perry et al. (1988) used a peer nomination inventory to assess bullying and victimization. This technique requires children to nominate peers who fit specific behavior descriptors. The victimization scale consists of seven items, such as *Kids make fun of him* or *He gets picked on by other kids.* Likewise, Björkqvist, Ekman and Lagerspetz (1982) carried out peer nominations to identify bullies and victims (cited in Lagerspetz & Björkqvist, 1994). It is interesting to note that Olweus (1978) also carried out peer and teacher ratings, but relied on self-report measures in all subsequent studies.

Observations of bullying can provide unbiased, objective accounts of an individual's actions. Smith and Connolly (1972) proposed that individual differences in personality may also be defined in terms of differences in overt behavior. Thus, observations may give interesting insights into the nature of bullying and the children involved. Rigby (1996) considered that direct observations are instructive, but extremely limited because they may lead to a serious underestimation of the extent of bullying in schools. However, this limitation probably only holds in the case of visible observers. Pepler and Craig (1995) developed a ground-breaking observation technique which allows to observe children unobtrusively on the playground. They used video cameras and remote microphones to observe children's interactions. In one of their observation studies they established that bullying occurred regularly, approximately once every seven minutes and was of short duration (Craig & Pepler, 1997). According to this study, bullying is not a low-frequency behavior. Most investigators implicitly assume that being bullied *once a day* is very frequent. In most questionnaires the highest response alternative possible is *several times a week* (Whitney & Smith, 1993) or *every day* (Rigby, 1996). Thus, in observations it is possible to uncover subtle bullying behaviors which may be difficult to report, but may be observed by external observers.

It is obvious that direct observations are not feasible in every setting (e.g. in toilets). Thus, Pellegrini and Bartini (1998) employed diary entries, a method which they consider to be an indirect observational method. Participants had to record their behaviors in diaries once a month over a period of one school year. However, as these diary records were performed only once a month, they give no further insights into the frequency of bullying.

Dodge and his colleagues (e.g. Dodge, Price et al., 1990) and Troy and Sroufe (1987) also carried out observation studies on aggression and victimization. Both research groups brought unacquainted children together in a laboratory setting to observe their interactions. Although both studies yielded very interesting results, they were limited because of the lack of ecological validity. They did not observe children in their natural setting among their peers. Bullying is a process which develops over longer periods of time and thus depends on certain relationship histories.

The question as to which assessment method and information source yield the most reliable and valid results remains unresolved. However, there are some attempts to compare various methods and information sources. Pellegrini and Bartini (1998) compared teachers' and research associates' ratings, direct observation and indirect

diary measures, as well as different peer-informant measures. They concluded that all forms of student informant rating (peer ratings and nominations as well as self-report) were effective at identifying bullies and victims. Nevertheless, they recommend to use a multi-method approach, including observations and multiple informants.

Craig et al. (1998) investigated the agreement among self-, teacher-, and peer-reports. 796 first- to sixth-graders participated in the study. Generally, the agreement between informants was very low. Self-reports and peer-nominations (but not teacher-nominations) contributed to the prediction of psychosocial outcomes six months later.

Perry et al. (1988) used peer nominations as a primary measure of victimization, but also included self-reports (ratings) and teacher-nominations. They argued that the use of aggregated peer judgements would minimize the impact of any individual raters' bias and might thus increase the reliability of assessments. The authors established a high reliability of the peer nomination victimization-scale. Further, peer-reported victimization was moderately correlated with teacher assessment and self-ratings. Teachers differed markedly with respect to the threshold for perceiving victimization, and there was a small group of children who perceived themselves as being victimized, but nobody else did. The latter findings led Perry et al. (1988) to the conclusion that peer nominations constitute the most reliable and valid assessment method with regard to victimization.

In their study among kindergarten children, Kochenderfer and Ladd (1997) compared self-reports, peer-nominations, teacher-reports, and observations of victimization. Children responded to four victimization items. The children were asked whether anybody in the class (a) *picked on him or her*, (b) *said mean things to him or her*, (c) *said bad things about him or her to other kids*, or (d) *hit him or her at school*. The response alternatives were *no, sometimes* or *a lot*. In addition, a peer nomination measurement was created. First, children were asked to nominate up to three peers who hit or push others or who say mean things. Second, children were asked to name the victims of these children. Children nominated by at least 30% of their peers as being victimized were categorized as victims. Teachers completed two well-known child behavior checklists. Moreover, observers scanned children's behavior for being victimized and rated children as victims of aggression. The authors established very low, although partly significant, correlations between the various measures used. Self-reports of victimization agreed more with teacher-reports and observations than

peer reports. Moreover, self-reported victimization was significantly correlated with acceptance and loneliness, whereas peer-reports was not. The result that self-reports corresponded better with external information sources and criterions than peer-reports, led the authors to the conclusion that self-reports may be a more valid indicator of victimization than peer-reports (Kochenderfer & Ladd, 1997). It is interesting to note that their conclusion is exactly the opposite of Perry et al.'s (1988) argumentation. This disagreement may be partly explained by age differences, maybe kindergarten-age children have more problems to identify other peers as being victimized than older children. Furthermore, Perry et al. (1988) judged the reliability of the victimization scale as more important (aggregating across several informants), whereas Kochenderfer and Ladd (1997) relied more on the external validation of their victimization scale.

Crick and Bigbee (1998) conducted a study on relational and overt forms of peer victimization. Peer- and self-report measures were used. Victimization (regardless of informant) predicted concurrent sociopsychological adjustment. However, they also found that children who were identified as victims by peer- and self-report were particularly maladjusted. Thus a multi-informant approach allows to identify the most extreme cases of victimization. In conclusion, the selection of method depends on the age group and also on the questions to be asked. Generally, a multi-method and multi-informant approach appears to be recommended.

2.4 Bullying in Kindergarten Age

Most studies on bullying and victimization were carried out among school-age children and adolescents. Participants in the large-scale studies in England, Scandinavia and Australia were between 7- and 18-year-old (Whitney & Smith, 1993; Olweus, 1991; Rigby, 1996). One of the reasons for this limited age range lies in the assessment procedure, because most studies employed questionnaires. Obviously, questionnaires are not applicable to children with no or poor reading skills.

These aforementioned studies indicate that bullying is more frequent among younger pupils than among older ones. Olweus (1991) showed a steady decrease in the number of children who reported being victimized. However, there was no clear age trend for bullying. In addition, younger students frequently reported that they were victimized by older students. Moreover, Rigby (1996) also reported a decrease in occurrences of bullying with age. Correspondingly, Whitney and Smith (1993) found a steady and

sharp decrease of victimization as children grew older. They also stated that the percentage of those doing the bullying was generally lower, but more constant. In conclusion, younger children are more often victims than older.

Therefore, we might expect kindergarten children to be victimized by older pupils. However, in most cases, kindergartens are only partly or not at all integrated in a larger school. Thus, kindergarten children might be protected against attacks of older children. Nevertheless, bullying may also occur among kindergarten children themselves. Although younger children are probably not 'cruel' and 'malicious', they are doubtlessly able to attack others repeatedly (Alsaker, 1997b).

In fact, the assumption that bullying even happens among kindergarten children was verified in a few studies. Alsaker (1993) carried out a study among kindergarten children in Norway. 120 five- to seven-year-old children participated. Among other measures, peer-, teacher- and parent-reports on bullying were used. Children were asked who bullied others physically and verbally and who the victims of those acts were. In addition, children were asked who was isolated, but these question proved to be very difficult for the children to answer. Teachers and parents reported whether and how frequent a particular child was victimized or bullied others. Children were identified as bullies (20 boys, no girls) and victims (2 boys, 10 girls) by means of peer nominations on physical bullying. Three children were categorized as aggressive victims. Although there may be some methodological problems (e.g. only nominations on physical aggression were used), the victims identified were also perceived by the teachers as being victimized more frequently than others (Alsaker, 1993).

In a pilot study of the present project, 20 kindergarten teachers were interviewed on bullying and aggression in kindergarten (see Järmann & Slovak, 1996). Most of the teachers told about experiences with aggressive and victimized children. Further, various bullying forms were mentioned. Physical aggression was the most common, but verbal and indirect means were also observed. Teachers frequently reported direct and indirect bullying forms which involved children's objects, such as hiding or damaging objects.

Kochenderfer and Ladd (1996, 1997) also conducted a study among kindergarten children. The study had a longitudinal design. Children were interviewed twice during the school year. They found that victimization may lead to school avoidance and loneliness. Moreover, for some children victimization seems to be a stable experience.

Half of the children reported that they were frequently exposed to peer aggression during the fall as well as in the subsequent spring.

Moreover, direct observations yielded that bullying in kindergarten could be quite a serious problem (Rigby, 1996). Chazan (1989) presented anecdotal evidence of bullying occurrences in kindergarten age. The study of Crick, Casas and Ku (1999) indicated that victimization may be a problem among even younger children. They investigated overt and relational victimization in preschool (3- to 5-year-old) and showed that both forms of victimization occurred in preschool. Moreover, victimized children experienced adjustment problems, such as internalizing problems and peer rejection (Crick, Casas et al., 1999). In conclusion, bullying is a serious problem - already in kindergarten age.

2.5   The Issue of Gender - Similarities and Differences

Most knowledge about aggressive behavior was gained through the study of males (Crick et al., 1998). This is also partly true for bullying research. For example, Olweus (1978) investigated only boys in his very first study. Nevertheless, later investigations involved girls as well as boys. Thus, we are able to consider similarities and differences between boys and girls with regard to bullying and victimization.

Olweus (1991) summarized the results of his main projects on bullying. He described that boys were more exposed to bullying than girls, but they were also more often bullies and girls were most often bullied by boys. This general pattern changed when forms of bullying were taken into account. Girls were exposed to indirect means of bullying to the same extent as boys. Likewise, Rigby (1996) summarized the results of some large-scale studies in Australia. More than 15% of boys and girls reported being victimized at least once a week, the proportion of male victims being somewhat higher. Girls were more likely to be bullied by indirect means, whereas boys were more often physically bullied. No difference emerged with regard to verbal bullying. Boys and girls were victimized by same-sex and opposite-sex peers, girls were more often bullied by groups. Whitney and Smith (1993) described the results of a survey involving more than 6'000 pupils. Girls were equally likely to be victimized than boys, whereas boys were twice as likely to bully others. Boys more often used physical means, whereas girls preferred indirect and verbal bullying. Moreover, girls were often bullied by boys and girls, whereas boys were almost always bullied by other boys.

In conclusion, there are at least three different issues to consider. First, the prevalence of bullying and victimization among girls and boys; second, the differences in the use of different forms of bullying; and third, the gender composition of bully-victim relationships (the third topic will be discussed in Chapter 2.6).

There is substantial agreement on the fact that boys are more often bullies than girls (e.g. Olweus, 1991; Rigby, 1996; Whitney & Smith). Moreover, Boulton and Smith (1994) used peer nominations to identify bullies and victims among 8- and 9-year-old children, they found no female bullies at all. This gender difference corresponds with research on aggression. Maccoby and Jacklin (1980) found in their meta-analysis involving preschool and kindergarten children that boys were more aggressive than girls. However, Hyde (1984) found these gender differences to be smaller than in earlier studies. More contemporary studies show that gender differences in aggression depend on the definition and operationalization of aggression (Eagly & Steffen, 1986). Crick, Werner et al. (1999) even argue that males and females are equally aggressive[6], but that they display different forms of aggression. Relational aggression is more typical for girls than for boys (Crick & Grotpeter, 1995). Likewise, girls make greater use of indirect means of aggression (Björkqvist, Lagerspetz & Kaukiainen, 1992). However, I doubt whether the assumption that boys and girls are equally aggressive is true (Crick, Werner et al., 1999). The result that boys display more physical aggression and bullying is a well-established fact (e.g. Olweus, 1991, Parke & Slaby, 1993; Owens, 1996). Even when considering relational, indirect aggression forms, boys score higher on physical aggression (e.g. Björkqvist, Lagerspetz et al., 1992). Therefore, girls may frequently use indirect or relational aggression forms, but nevertheless boys more often display physical aggression. In my view, the conclusions of studies on gender and aggression should be that relational, social or indirect means of aggression are more typical of girls, i.e. when girls behave aggressively (and they do it less frequently than boys), they employ more indirect means of aggression. As Hyde (1984) noted, the within-gender variation in aggression is far larger than the between-gender variation. Gender differences regarding aggressive behavior may result from the higher percentage of extremely aggressive children among boys (see

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[6]   Wellman, Bigbee and Crick (1999), even titled their article as follows: *Relational aggression and relational victimization in school: "Equal Opportunity" for aggressive girls.*

Jacklin, 1981). This corresponds with the results of bullying research indicating that boys are more likely to be bullies.

Results with regard to victimization are somewhat ambiguous. Olweus (1991) and Rigby (1996) reported that boys were somewhat more often victims than girls, whereas Whitney and Smith (1993) stated that boys and girls were equally likely to be victimized. Thus, the gender difference with respect to the occurrence of victimization is not well-established (for a review see Schuster, 1996; Jost & Zbinden, 1999). However, differences in victimization forms were demonstrated in several studies. Olweus (1991) and Rigby (1996) stated that girls were more frequently exposed to indirect means of bullying. Likewise, Crick and Grotpeter (1996) showed that boys reported more overt victimization than girls, but girls did not report more relational victimization. In a similar study, Crick and Bigbee (1998) concluded that girls are likely to be victimized only by relational means, whereas boys were victimized overtly and relationally. Thus, the only unequivocal result is that boys are more often overtly and physically victimized than girls.

Furthermore, there are some indications that bully-victims are more often male than female. Although most of the studies which investigated aggressive victims involved only boys (e.g. Olweus, 1978; Schwartz, Dodge, Pettit & Bates, 1997; Schwartz, 1995), a few studies involved girls as well. Pellegrini et al. (1999) identified eight aggressive victims in their sample, seven of them were boys. Hodges, Malone and Perry (1997) as well as Egan and Perry (1998) found boys to display more externalizing problems. Boulton and Smith (1994) identified six male and only one female bully-victim. In contrast, in the study of Perry et al. (1988), only five of the nine aggressive victims were boys.

There are several explanations for the differences found among boys and girls with respect to aggressive behaviors. Biological as well as environmental factors account for gender differences in aggression (for a review see Parke & Slaby, 1983). As Deaux and Major (1987) argued, the majority of theoretical models of gender stress how gender-related behaviors emerge or are acquired. Such explanations range from biological models, social learning theory, cognitive developmental theory to more sociological models such as social role theory. However, these models cannot explain the behavior of an individual in a specific situation or context (Deaux & Major, 1987). This difference between *acquisition* and *display* of gender-related behaviors parallels the distinction between performance and competence (Flammer, 1988). Although

every child presumably knows how to bully others, he or she may not perform this behavior. In agreement with Deaux and Major (1987), I consider gender-linked social behaviors to be multiply determined, highly flexible and context dependent.

As bullying is a behavior which occurs per definition among peers, peer relationships are probably the most important social context to explain differences among boys and girls. The patterns of boys' and girls' social relations are very different (Archer, 1992). For example, boys interact more often in larger groups where status and role conformity are important. In contrast, girls are more often involved in intensive or intimate relationships (Waldrop & Halverson, 1975; Archer, 1992). According to Maccoby (1986), this organizational difference in boys' and girls' social relationships may also have an impact on the occurrence of antisocial behavior. Several investigators suggested that gender differences in aggression are linked to relationship patterns among boys and girls (e.g. Owens, 1996; Crick & Grotpeter, 1995, Tattum, 1989). Accordingly, girls use more relational forms of aggression to damage others' close peer relationships, which is perceived to be more important among girls. Males are expected to be strong and assertive, whereas females should avoid physical damage and retaliation (Eagly & Steffen, 1986). Thus, girls display mainly indirect aggression, whereas boys might display their strength and assertiveness by bullying others physically. In sum, peer relationship patterns seem to be particularly relevant to explain gender differences in bullying and victimization.

2.6   Who is Victimized by Whom? - A Question of Power

As discussed above, one of the defining elements of bullying is power asymmetry. The power differential between bully and victim may reside in age differences, e.g. being physically stronger, having better verbal and social skills, or having a higher social status.

As mentioned above, younger children are more often victims than older pupils (Whitney & Smith, 1993; Olweus, 1991; Rigby, 1996). In contrast, no clear age trends for bullying emerged. This result may indicate that younger children are mainly bullied by older children. Olweus (1991) found that younger children reported being victimized by older children. Correspondingly, Rigby (1996) noted that bullies were somewhat older than the students they victimized. On the other hand, Whitney and Smith (1993) reported that in junior/middle schools most bullying was carried out by pupils of the same class as the victims. Similarly, Craig and Pepler (1997) observed

that children tended to bully students from the same grade level. Therefore, children are mainly bullied by older or same-age children and rarely by younger children. Boulton and Underwood (1992) stated that only 9% of the pupils were bullied by younger children, whereas 29% were victimized by older pupils. However, this pattern changed when the victims' age was taken into account. 41% of the children of the younger age group (8-9 year-old) reported being bullied by older children.

There are some indications that bullying is more common in age-mixed schools (Whitney & Smith, 1993). Moreover, the transition from primary to secondary school (or to high school) usually results in an increase in victimization (Whitney & Smith, 1993; Rigby, 1996; Olweus, 1991), probably because these children are again the youngest in school and are thus preferred victims. G. Smith (1991, cited in Whitney & Smith, 1993) described that infant school pupils in mixed infant/junior schools more frequently reported to be victimized than children in separate infant schools. According to Whitney and Smith (1993), "...age trends in bullying seem largely to follow what would be expected in terms of opportunities to dominate another" (p. 21).

Age differences normally imply that bullies are physically stronger. However, physical strength is probably a more relevant factor among boys and with respect to physical bullying. In addition, older children usually have better verbal and social skills which they can use to bully others verbally or indirectly.

In childhood, gender segregation is a well-established fact (see Maccoby & Jacklin, 1987). Thus, it may be assumed that bullying and victimization mainly occur among same-sex children. However, bullying does not seem to be a gender-segregated activity. Olweus (1991) found that 60% of the girls reported being mainly bullied by boys; 15% - 20% were bullied by boys and girls; the remaining female victims were bullied by girls only. In contrast, the majority of boys, namely 80% were bullied only by other boys. Correspondingly, Boulton and Underwood (1992) reported that more than 80% of the male victims were bullied by other boys, whereas girls were frequently bullied only by boys (38%) or boys and girls (38%). Only 24% of the female victims were victimized only by girls. Rigby (1996) also found that boys were mainly victimized mainly by boys, whereas girls were victimized by children of either gender. Boys were rarely bullied by girls.

Various investigators attempted to explain this finding. As Craig and Pepler (1995) argued, boys bully to establish dominance and status among their peers. Boys probably bully in order to display strength and fearlessness. This goal can be attained by

bullying either boys or girls. In contrast, girls bully in order to damage others' close peer relationships, which is perceived to be more important among girls (Crick & Grotpeter, 1995). Thus, the low proportion of girls bullying boys may be explained by gender-related forms of bullying and the function of bullying. As discussed above, the social organization of boys' and girls' peer groups may contribute to the observed differences (see Maccoby, 1986). According to Archer (1992), cross-sex interactions are rare and mostly initiated by boys in order to emphasize the boundaries between their social world and that of girls. This 'borderwork' (Thorne, 1986) is usually carried out by boys and is disruptive as well as assertive. The power imbalance between men and women on a societal level may explain the asymmetrical nature of 'borderwork'. Although Archer (1992) does not refer to bullying, he compared such negative interactions with sexual harassment in adulthood. Therefore, some of the interaction patterns described as 'borderwork' may be considered as bullying.

Bullying may be carried out by one child or a group of children. When a group of children attacks another child, the power asymmetry becomes obvious. Whitney and Smith (1993) reported that most bullying was mainly carried out by one boy. Bullying by several boys was the next highest response, followed by being bullied by several girls and being bullied by mainly one girl. This gender difference may reflect the bullying forms typically displayed by boys and girls. Boys mainly use direct means of aggression, which may be displayed in one-to-one encounters. In contrast, girls more often display relational aggression and indirect forms of bullying. These forms often involve exclusion from a group whereby bullying is usually displayed by a group of children.

In conclusion, bullies acquire power over their victims in different ways, e.g. by physical size and strength, by status within the peer group, by knowing the victim's weaknesses or by obtaining support from other children (Pepler, Craig & Connolly, 1997).

2.7   The Interactional Context of Bullying

Bullying is a social interaction between at least two individuals. One child is more powerful and wishes to dominate, whereas the other child is powerless and displays submissive behaviors. However, being submissive does not necessarily mean that a child is a victim (Bernstein & Watson, 1997). Moreover, aggressive children are only potential bullies. Only when children with certain behavioral tendencies come face-to-

face, is it possible for patterns of bullying to emerge (Pepler, Craig & O'Connell, 1995). According to social learning theory (Bandura, 1973; Patterson, 1986), the reaction of the targeted child may reinforce the bullying behavior. As Mummendey, Linneweber and Löschper (1984) emphasized, aggression should not be considered only in terms of individual responsibility, but in terms of at least two participating individuals who are acting in a specific context. Troy and Sroufe (1987) demonstrated that victimization is not the result of individual characteristics but the expression of the confluence of two particular attachment histories. In conclusion, victimization cannot be considered without its interactional context.

Victimization is commonly conceptualized as an interaction between different children, whereby the individual child serves as the unit of analysis. By means of standard assessment procedures we are only able to identify children as victims or as bullies, but we do not know whether these children really constitute a bully/victim dyad. Nevertheless, some investigators began to speak of bully/victim relationships (e.g. Abecassis & Hartup, 1999; Dodge, Price et al., 1990; Pepler et al., 1995). This seems to be a qualitative shift in the conceptualization of victimization (Alsaker & Perren, 1999). However, the conceptualization of victimization as a (dyadic) bully/victim relationship may impede the understanding of the phenomenon and its prevention.

According to the bullying definition, a child is a victim when he or she is repeatedly exposed to negative actions (Olweus, 1991). Similarly, a bully is identified as an aggressive child who repeatedly attacks weaker children. Thus, it is commonly not established whether bullying really occurs among the same children, i.e. between the child who is identified as the bully and the child identified as the victim. Although in some investigations children were asked whether they were bullied by one child or several children (e.g. Whitney & Smith, 1992), the identity of the attacker is generally not established. Nevertheless, it may be assumed that bullies tend to attack the same victims (Bernstein & Watson, 1997). According to Pierce and Cohen (1995), it is a plausible hypothesis that victims of aggressors remain consistent because behavioral patterns as well as social status of children tend to remain stable. In addition, the reputational bias within the peer group may contribute to the stability of the victim's role.

Olweus (1978) presented several possible situations in which bullying may occur. He found classes with one (or more) victims and one (or more) bullies, but there were

also groups including only one or more bullies (and no victims) or one or more victims (and no bullies). Olweus described the development of bully/victim problems among boys as follows: When there was a (potential) bully in the class, he would act aggressively toward others in order to dominate and subdue them. Due to his physical strength his aggressive attacks were painful for the others. He did not only attack the weakest boy in the class, but also some other children, occasionally even girls. When there was a victim - 'a whipping boy' - in the class, this boy would be the bully's preferred target. Olweus proposed the following group mechanisms: social contagion, weakening of control against aggression, diffusion of responsibility, and cognitive changes (i.e. peer reputation). As a consequence of these mechanisms, neutral boys also began to harass the victim. Therefore, the victim was repeatedly exposed to negative actions, but not every time by the same child.

Olweus (1978) found that in some groups, victimization occurred although no special bullies were present. Thus, another developmental pathway led to bully/victim problems. In these groups without bullies, victimized children could be described as 'provocative' victims. These boys were hot-tempered and generally irritating, unruly and distractible. Their behavior created tension and provoked aggressive reactions from others. Sometimes the whole class would even turn against them. In addition, some of them shifted between the victim's and the bully's role, i.e. they might be characterized as bully-victims (Olweus, 1978).

Bullying does not only involve children directly participating in bullying, but also other children who are onlookers or even assistants of the bully (Salmivalli, Lagerspetz, Björkqvist, Österman & Kaukiainen, 1996). Bullying most often occurs in group situations. Bystanders who do not intervene are also part of the situation. The absence of intervention, i.e. overlooking or ignoring by peers or teachers, is a precondition that must be met for aggressive behavior toward peers to develop into bullying (Alsaker, 1997b). In conclusion, victimization may be considered as stable interaction pattern between bully and victim in the class, but occurrences of victimization are not just limited to those children. In accordance with Pepler et al. (1995), I view bullying and victimization as interaction patterns between individuals which unfold within a broader system, i.e. the social context.

2.8   Bullying, a Social Phenomenon - Levels of Complexity

The description of the nature of bullying and its prevalence are important to sensitize people to the significance of the problem. However, as Slee (1993) pointed out, this can be only the first step, and investigations of bullying should move on to other questions such as the specific factors contributing to victimization. As bullying is a social phenomenon, there is agreement among investigators that bully/victim problems cannot be explained in a simple way. Several individual and social factors contribute to bullying and victimization. This - mostly implicit - assumption is also reflected in the design of prevention programs which attempt to intervene at individual, group, and school level (e.g. Olweus, 1991, 1995; Craig & Pepler, 1996; Rigby & Slee, 1998; Whitney, Rivers, Smith & Sharp, 1994).

Although there is consensus that bullying is multidimensional and can only be explained by various factors, there exist only few attempts to integrate them into a theoretical account. Rigby (1996) proposed a model to explain the various factors influencing bullying (see Figure 2.1): Before the child starts school, there are three major sources of influence, namely genetic endowment (physical constitution; psychological characteristics), family background, and cultural influences. The three influential aspects of the school situation are school ethos, educational climate, and school policy on bullying. There are many pathways of influence, and various combinations of these forces may promote or oppose bullying. In this model, two main levels are differentiated. First, the child's behavior contributes to bullying or to being victimized. Second, there are factors on school levels, such as school ethos and the educational climate, which also influence victimization and peer relations (Rigby, 1996).
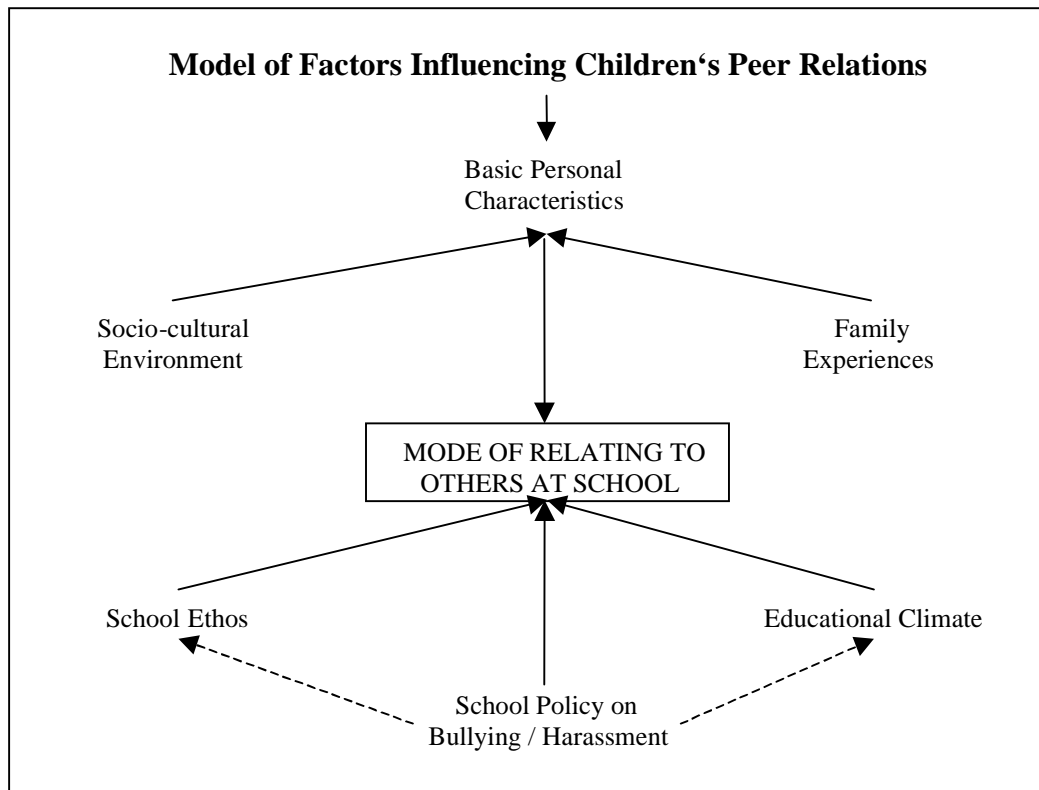
Figure 2.1:   Model of factors influencing children's peer relations (Rigby, 1996, p. 70)

Pepler et al. (1995) proposed a theoretical model of bullying from a dynamic systems perspective. They explained the interactional process between bully and victim in terms of dynamic systems (e.g. positive feedback). This approach was complemented by systems theory which indicates the contexts in which the process unfolds. Thus, the individual, the dyadic, the group, and the school level contribute to the development, acceleration, maintenance, and termination of bullying. In their view, the first steps toward the emergence of bullying are the cognitions, emotions, and behavior of bullies and victims. These personality patterns are influenced by family experiences, genetic factors, or by other systems such as siblings or peers. When a bully and a victim with certain cognitive and behavioral tendencies come face-to-face, interaction patterns begin to emerge. The direction of these relationships depends on the behaviors, cognitions, and emotions of *both* children. If there is positive feedback or mutual reciprocity, such as being dominant and submitting, a bully/victim relationship will develop between these individuals. In their observational studies, the authors established that in most bullying episodes peers were present (e.g. Craig & Pepler, 1995). Thus, bullying does not occur in a vacuum, but in the peer group context. Peers play multiple roles in sustaining bullying. First, they are attracted to

bullying interactions and may thus reinforce the bully or the victim by providing attention or joining in. Second, bully and victim each obtain a certain reputation which may increase occurrences of bullying. In addition to the individual, dyadic and peer group level, the teacher-children system must be taken into account (Pepler et al., 1995).

In sum, the occurrence of bullying is explained by a systemic interplay between various levels such as individual, dyadic, and peer group level. This theoretical account corresponds with other models which attempt to explain social behaviors.

According to Cairns and Cairns (1991), social behavior patterns, e.g. aggression, are determined by multiple factors and should thus be assessed using multilevel measurement. The authors differentiate between individual, inter-individual, network, inter-network and cultural-ecological levels. Their developmental model has its foundation in various theories, which have the following two assumptions in common: "...(a) social behavior patterns are determined by multiple factors, and they should not be divorced from the ontogenetic and social contexts in which they normally occur; and (b) the scientific understanding of social patterns requires a holistic, integrated view of the person over time. The developmental perspective thus holds that the factors that influence social behavior are fused and coalesced in development: they do not 'interact' or maintain their separate identities in the child or adolescent." (Cairns & Cairns, 1991, p. 250).

There are also other attempts to describe and understand social behavior not only on the individual level. Hinde (1987, 1992) attempted to integrate ethological approaches with social sciences. He proposed a model of social complexity (see Figure 2.2).
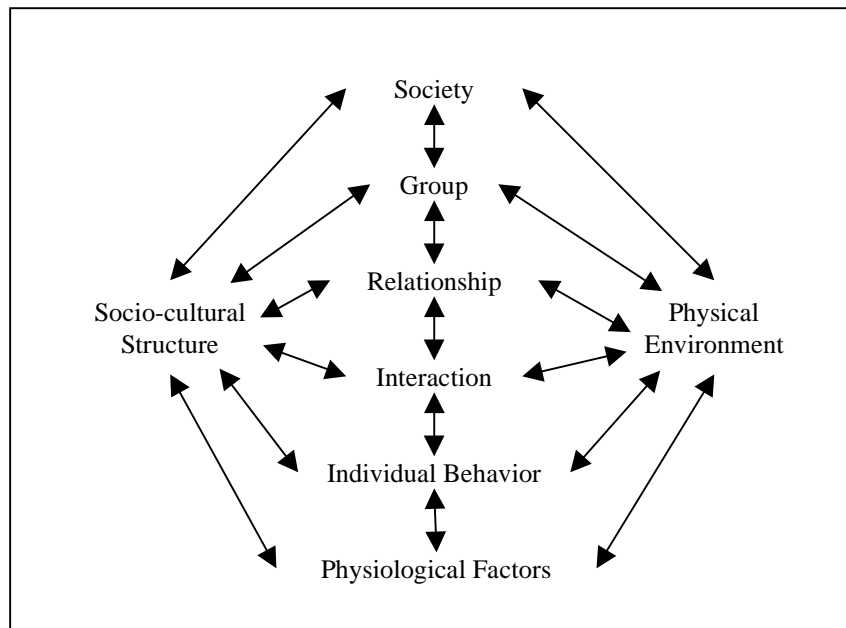
Figure 2.2:   Dialectical relations between levels of social complexity (Hinde, 1992, p. 18)

To analyze social phenomena, several levels can be differentiated, such as individual behavior, interactions, relationships, groups, and society. The individual behavior partly depends on whom the person is together with, i.e. it depends on the nature of the relationship and the group structure. The successive levels of social complexity have dialectical relations, i.e. it is also important to be aware of the mutual influences between them (Hinde, 1987). Thus, it is important to consider the various levels of complexity and their dialectical relations in order to understand bullying and victimization.

In conclusion, bullying is a complex phenomenon which is embedded in its social context. In the case of bullying, peers, and more generally, peer relations are presumably the most influential social context variable.[7] Not only is bullying defined as aggression among peers, but peers may directly and indirectly influence the

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[7]   In addition to peer relations, there are other social context variables which certainly play an important role in the emergence of bullying. Children's socialization experiences with parents and siblings have a significant influence on children's behavior in the peer group (Schwartz, Dodge, Pettit & Bates, 1997; Patterson, 1986). Sheer membership to a specific kindergarten group may establish a child's history as either becoming a victim or not becoming a victim. Societal and group norms, values, and attitudes toward aggressive and bullying behavior are embedded in the kindergarten's everyday social life and are expressed in behaviors and attitudes of peers and teachers (Rigby, 1996). However, these additional factors contributing to bullying and victimization are beyond the scope of this study.

occurrence of bullying by intervening and helping the victim or by supporting the bully. Adopting some of the ideas of the multi-level approaches of Cairns and Cairns (1991), Hinde (1992) and Pepler et al. (1995), I will differentiate between individual, dyadic and group level in the following chapters.

Victimized and bullying children display distinctive social behavior patterns. The *individual level* describes social behavior patterns which predispose children to being victimized or characterize children who bully others (Chapter 3). Bullying occurs among children in the same peer group, where children also form positive relationships with each other. On the one hand, aggressive children tend to affiliate and may thus reinforce each others' behavior. On the other hand, friendship may be a protective factor, but victims often lack friends or may even be victimized within their friendships. On the *dyadic level* peer relationships of bullying and victimized children are of interest (Chapter 4). Further, peers may indirectly promote the occurrence of bullying by the process of peer reputation which is also reflected in a child's social status. Low social status, i.e. not being liked, may result in victimization, whereas bullying may even increase the bullies' social status. Thus, on the *group level*, the relation between children's social status and bullying or victimization is considered (Chapter 5). Some children are predisposed to being victimized due to behavioral vulnerabilities (individual risk) and lack of friends or low social status (social risk). However, individual and social risk are presumably not independent. Thus, in Chapter 6, the levels of complexity are integrated.

3   On Bullies and Victims - Distinctive Social Behavior Patterns

When entering kindergarten, children have individual styles of behavior. Their individuality was formed through a systemic interplay between socialization experiences and genetic endowments. From the beginning of their life, children display their individual behavioral style, i.e. temperament (Schaffer, 1996). Certain personality traits or behaviors are genetically influenced (Plomin, DeFries, McClearn & Rutter, 1997). Social roles such as gender roles have, at least partly, been internalized (Bilden, 1991; Eagly, 1987). In addition, children are affected by their experiences with parents, siblings or peers. For example, children who were physically punished act more aggressively toward peers in kindergarten (Strassberg, Dodge, Pettit & Bates, 1994), whereas children with 'avoidant' attachment histories may get victimized in preschool (Troy & Sroufe, 1987). There is consensus among bullying researchers that behavioral characteristics influence the occurrence of bullying and victimization (e.g. Smith, 1991; Rigby, 1996; Olweus, 1991). However, although children bring a set of behaviors which render them more vulnerable to being victimized or to becoming a bully, the behavior patterns these children bring with them is only the first step in the emergence of bullying.

3.1   Distinct Subgroups of Bullying and Victimized Children

As already mentioned in Chapter 2, at least three groups of children involved in bully/victim problems can be distinguished, namely bullies, bully-victims and victims. Various research teams distinguished between different subgroups of children involved in bullying.

In one of the earliest books on bullying, Olweus (1978) distinguished between two subgroups of victims. *Passive victims* were anxious, insecure, failed to defend themselves. Thus, victims were characterized by an anxious personality combined with physical weakness. In contrast, *provocative victims* were hot-tempered, created tension, and fought back. They were characterized by a combination of anxious and aggressive behavior patterns. Moreover, he described aggressive bullies and passive bullies. *Aggressive bullies* were belligerent, fearless, coercive, confident, tough, impulsive, and had a low frustration tolerance. Further, they had a strong need to dominate others. *Passive bullies* or followers, or henchman were children who did not

initiate but participated in bullying episodes. They were a heterogeneous group and might contain insecure and anxious pupils. In sum, bullies had an aggressive personality pattern combined with physical strength. The author mainly investigated boys and he admitted that the characteristic of physical strength may hold only for boys (Olweus, 1978; 1991).

Stephenson and Smith (1989) used teacher reports to describe subgroups of children involved in bullying. They differentiated between victims, provocative victims and bully-victims, as well as between bullies and anxious bullies. *Victims* tended to be weak, lacked self-confidence, and were less popular with peers, whereas *provocative victims* were active, stronger, easily provoked, and often complained about being picked on. Children in the *bully-victim* group were also stronger and assertive, and were amongst the least popular children, both bullying others and complaining about being victimized. Moreover, *bullies* could be described as being strong, assertive, easily provoked, enjoying aggression, and having average popularity and security. In contrast, *anxious bullies* had poor in school attainment, were insecure and less popular (Stephenson & Smith, 1989).

Rigby (1996) summarized the characteristics of bullies and victims. Bullies were more often found to be bigger and stronger than average, and to be aggressive, impulsive, low in empathy, and generally uncaring and low in cooperation. Victims were commonly found to be physically less strong than others, timid and non-assertive, introverted, they had low self-esteem, and few friends. The author admitted that the dichotomy of bullies and victims was an oversimplification and suggested the following distinctions: Bullies who were very calm versus anxious bullies, as well as bullies who were also victimized versus others who were seldom targeted. Further, children who only bullied in groups and who were more sociable and conformist versus bullies who bullied others in one-to-one situations. Moreover, provocative victims who appeared to deliberately antagonize others versus non-provocative victims. Lastly, there were victims who were victimized due to some social or individual characteristics (Rigby, 1996).

Despite the varying descriptions of children involved in bullying, there is large overlap in these more differentiated categories. Almost all investigators differentiate between (a) children who bully others and are not victimized (bullies, aggressive non-victims), (b) children who are victimized and bully others (bully-victims, provocative victims, aggressive victims), and (c) children who are victimized without

being aggressive (victims, passive victims, non-aggressive victims). These three subgroups of children (bullies, bully-victims, and victims) display distinct behavior patterns.

In the present dissertation, the terms bully-victims, aggressive victims, and provocative victims are subsumed under *bully-victims*. This may be an oversimplification. Bully-victims maybe are a very heterogeneous group. According to Pellegrini (1998), little is known about aggressive victims. As it has generally not been assessed who is victimized by whom, our insights into the bullying behavior of bully-victims is very limited. Possibly, bully-victims are victimized by some stronger members of the group and they themselves bully still weaker children. Baldry (1998) reported that in a focus group discussion involving 11-year-old pupils, children reported that some victims start picking on weaker peers, thereby reinforcing the cycle of violence. However, the group of bully-victims may also include victims who are rejected and excluded due to their own disruptive behavior.

Presumably, bully-victims are characterized by a combination of behavior patterns typical for bullies and for victims. Therefore, bully-victims' behavior patterns will be compared to the social behavior of bullies' social behaviors as well as to victims' behavior patterns. In the following section, I will describe these three groups by distinguishing between several categories of social behavior: aggressive and assertive behavior, submissiveness, withdrawal, as well as social skills.

3.2   Bullies' and Bully-victims' Aggressive Behavior

Bullying is a subcategory of aggression whereby the aggressive behavior is aimed to hurt a weaker child (Craig & Pepler, 1995). Accordingly, children who bully others are aggressive children. Olweus (1978) described bullies as having an aggressive personality pattern. Bullies seem to enjoy aggression (Stephenson & Smith, 1989). Moreover, bullies were found to more often start fights and to be more disruptive than victims (Boulton & Smith, 1994). However, bullying is not the same as being chronically aggressive. Although bullies and bully-victims are both aggressive, they do not display the same aggression patterns.

The distinction between proactive and reactive aggression is one of the most important differentiations with respect to bullying. Dodge, Coie, Pettit and Price (1990) differentiated between reactive aggression, which is a defensive response to a perceived provocation, and proactive aggression. Proactive aggression was further

separated into instrumental aggression whereby the goal is a non-social outcome, and bullying aggression whose aim is to dominate or intimidate a peer.

The *social information-processing approach* is currently one of the most popular explanations of aggression and socially competent behavior. Dodge, Pettit, McClaskey and Brown (1986) as well as Dodge and Price (1994) distinguished between five distinctive sequential steps, including the encoding of social cues, the mental representation of those cues, the accessing of potential behavioral responses, the evaluation and selection of an optimal response, and the enactment of that response. Crick and Dodge (1994) reformulated this model and added an additional step, namely clarification of goals. This additional social information-processing step proved to be a very important step in distinguishing between proactive and reactive aggression. Several studies showed that aggressive children have a hostile attributional bias in response to ambiguous provocation situations, i.e. neutral or ambiguous acts are evaluated as intentionally harmful (see Crick & Dodge, 1994). For these children aggression may mainly serve retaliatory goals. This type of aggressive acts is defined as reactive aggression. In contrast, proactive aggression involves a different social information-processing step. Children who are proactively aggressive expect relatively positive outcomes of aggressive acts and feel able to perform them successfully. As Crick and Dodge (1996) pointed out, reactive aggression has its theoretical roots in the frustration-aggression model of aggression (Berkowitz, 1993; Dollard et al., 1939; both cited in Crick & Dodge, 1996). In contrast, proactive aggression can be explained by social learning theory formulations of aggression (Bandura, 1973). Although these two types of aggression are related, distinct types of children can be differentiated. In fact, several studies showed that bullies display more of the proactive type of aggression, whereas reactive aggression is related to victimization. The relation between reactive aggression and victimization may apply to bully-victims who are conceived as aggressive victims.

Pellegrini, Bartini and Brooks (1998) carried out a study involving 154 fifth-graders (87 boys and 67 girls). Several issues relevant to bullying and victimization were addressed, such as the occurrence of bullying and differences in individual behavior. A number of different measures were used, namely self-reports of bullying and victimization, various peer nominations, teacher ratings on temperament, proactive/reactive aggression, and dominance. With respect to behavioral correlates of bullying and victimization, the following results emerged: Bullying scores were

positively related to dominance, activity, and emotionality. Victimization scores also correlated positively with emotionality. Further, aggressive victimization scores were highly associated with activity and emotionality. In a second step, participants were categorized as bullies and victims. Due to the small number of aggressive victims, they were omitted from the analyses. For children classified as bullies, bullying scores were positively related to reactive aggression, proactive aggression, activity, and emotionality. In contrast, for victims, their victimization scores correlated positively with reactive aggression (Pellegrini et al., 1999). The authors found only a small group of aggressive victims. Nevertheless, the supposed victims had high scores on reactive aggression. This may be an indication that the victim group also included some aggressive victims. Similarly, Schwartz (1995) found proactive and reactive aggression to be positively related to victimization. However, when controlling for reactive aggression, proactive aggression was negatively associated with victimization. In conclusion, these results indicate that bullies more often display proactive aggression, whereas bully-victims more frequently display reactive aggression.

Craig and Pepler (1997) observed 82 children (mean age 9.9 years) in the school yard. 42 of these children were nominated as aggressive by teachers and were assigned to the aggressive subsample. Observers blind to group membership identified bullying episodes. 82% of the aggressive subsample and 76% of the original non-aggressive subsample were involved in bullying episodes, either as perpetrator or target. The authors found that there was almost equivalent participation by the aggressive and non-aggressive children in the roles of 'bully' and 'victim'. In 39% of the episodes the actors were from the aggressive subsample, whereas in 31% of the episodes the 'bullies' were from the non-aggressive subsample (Craig & Pepler, 1997). In a similar study, the same authors found that non-aggressive children were more likely to bully on the playground, whereas aggressive children were more likely to bully in the classroom (Craig, Pepler & Atlas, 1997). Thus, aggressive children were more likely to be perceived by teachers as being bullies, whereas non-aggressive children remained undetected. This finding indicates that bullying is not only restricted to children who have a reputation of being aggressive. Bullying is defined as repeated negative action toward weaker children. Whether these children observed as being actors in bullying episodes really qualify as being bullies (or bully-victims) is uncertain. Nevertheless, these observational studies give another view of bullying as a

behavior which is common among school children and which is not only restricted to some highly aggressive individuals.

Patterson, Littman and Bricker (1967) suggested that aggressive behaviors can be viewed as part of a broader matrix of assertive behaviors. Bullies and bully-victims are described as being assertive (Stephenson & Smith, 1989). Children who were observed to bully others, were also rated as being more dominant and as assuming more leadership than targeted children (Craig & Pepler, 1997). Likewise, male bullies were nominated by peers as being leaders more often than victims (Boulton & Smith, 1994). Moreover, bullies are coercive and have a strong need to dominate others (Olweus, 1978).

Dominance and assertiveness, i.e. leadership can be gained by being aggressive. This is especially true for kindergarten-age children. Hawley (1999) proposed a developmental model of social dominance. It is a common finding in ethological studies that social dominance can be achieved by using coercive means. However, this is primarily true for animals and young children. The author proposes that young children use coercive strategies in order to gain social dominance, i.e. to acquire resources and positive regard from peers. However, the use of coercive and prosocial strategies begins to become differentiated in kindergarten age (4 to 7 years). During that time period, coercive and prosocial strategies are still interrelated, but begin to differentiate. Later on, these two strategies can clearly be distinguished. Some individuals mainly use coercive strategies, whereas others employ prosocial strategies. The former type of individuals may be described as *bullies* and the latter as *leaders*. (Hawley, 1999). This may indicate that in kindergarten age, coercive and prosocial means of gaining dominance are interrelated. Presumably, bullying children use both kinds of strategies.

In sum, bully-victims may be described as are highly aggressive children who display mainly reactive forms of aggression. In contrast, bullies are children who attain dominance by using coercive strategies and by being proactively aggressive.

3.3   Submissiveness - A Hallmark of Victimization

Assertiveness includes not only behaviors such as being dominant but also the ability to set limits. Lack of ability to set limits, i.e. submissiveness[8], is a behavior on the receiving end. Thus, it is probably more relevant for the analysis of victims' behavior. In fact, several studies established the strong link between submissive social behavior and the emergence of chronic victimization by peers. Submissiveness may even be considered as a hallmark of victimization (Crick & Bigbee, 1998).

Perry et al. (1988) conducted a study on victims of peer aggression. 165 third- to sixth graders participated. Peer nominations were used to identify children who were extremely victimized. The authors established the dichotomic nature of victimization. Some of the extremely victimized children were among the most aggressive children in the sample, whereas other victims almost never behaved aggressively. The non-aggressive victims were submissive and withdrawn (Perry et al., 1988).

Schwartz (1995) conducted two studies in order to investigate the social behavior of bullied children. The first study involved 334 11- to 13-year-old children (160 girls, 174 boys). Peer nominations and teacher ratings were used to assess victimization and social behaviors (reactive and proactive aggression, submissiveness, assertiveness, and withdrawal). Analyses revealed that aggressive (proactive and reactive aggression) and non-aggressive behavior variables accounted for the prediction of victimization. Withdrawal and submissiveness were positively related to victimization, whereas assertiveness was negatively correlated. In the second study, only boys of study 1 participated. Victimization and aggression scores from Study 1 were used to classify the boys into aggressive victims, non-aggressive victims, and aggressive non-victims. These three groups of boys were compared to children who were neither aggressive nor victimized. The peer interview carried out consisted of behavioral descriptors. These peer ratings covered behavior in non-aggressive encounters (submissiveness, leadership, withdrawal, peer group entry, helpfulness, and social desirability) and aggressive episodes (initiation of aggression, receiving aggression, responses and outcomes of aggressive episodes). Aggressive victims were rated as being frequent initiators and targets of bullying. In contrast to non-aggressive victims, aggressive victims more often received reactive aggression. Aggressive victims changed between

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[8]   *Lack of ability to set limits* and *submissiveness* are used interchangeably.

aggressive and submissive roles in their conflict episodes, whereas non-aggressive victims were always submissive. Both types of victims were rated as being rarely dominant in aggressive encounters and received seldom the support of the peer group as a whole (Schwartz, 1995). The fact that aggressive victims, in contrast to passive victims, are not always found to be submissive, may be characteristic of their bully-victim status: when bully-victims are attacked by others, they possibly fight back. Kochenderfer and Ladd (1997) were interested in the children's responses to peer aggression, i.e. which reactions are efficient means to stop bullying. They found that for boys fighting back was related to stable victimization. Thus, fighting back is a somewhat ambiguous response to victimization. Most studies conducted involved only physical and verbal abuse, but Crick and Bigbee (1998) showed that not only overtly but also relationally victimized children are submissive.

Submissiveness, i.e. giving in during conflicts, is not only characteristic of victims, but is also perceived by peers as a rewarding attribute. Perry, Williard and Perry (1990) found that peers viewed victimized children as providing their aggressors with positive consequences. Victimized children are likely to reward their attackers with tangible resources and signs of distress, moreover, they are unlikely to retaliate. Thus, attacking a child who is repeatedly victimized is rewarding, either to achieve instrumental goals, or to demonstrate power and dominance (Perry et al., 1990).

In addition to studies employing teacher ratings and peer nominations, observational studies yielded similar results. Schwartz, Dodge and Coie (1993) carried out observations in boys' play groups in order to examine the behavioral patterns leading to chronic victimization. 30 play groups consisting of six unacquainted six- to eight-year-old boys were observed during five 45-minute-sessions. The study focused only on non-aggressive victims. Their behavior was compared to non-aggressive and non-victimized children ('contrasts'). The researchers were interested in submissive behaviors during non-aggressive persuasion attempts and in aggressive exchanges. Moreover, the occurrence of prosocial activity and assertive leadership behavior and various types of aggression (reactive aggression, instrumental aggression and bullying) were coded. The relative rates of aggression initiated and received were used to identify chronically victimized boys. With regard to the different subtypes of aggression, an interesting picture emerged. Victims initiated bullying and instrumental aggression (but not reactive aggression) at lower rates than the comparison group. Furthermore, victims were more often targets of bullying aggression, but not of

instrumental or reactive aggression. Victims displayed a non-assertive and socially incompetent behavior pattern: They received lower leadership ratings, initiated fewer persuasion attempts, initiated fewer social conversations, and spent more time in parallel play than 'contrasts'. The authors concluded that these non-assertive immature forms of behavior led to an increase of victimization over time. In addition, the social behavior changed during the course of the observation period. Victims spent more time in parallel play and the other members of the play group behaved increasingly negative and coercive toward the victims. In a second phase of the study, victims' behaviors during various types of dyadic interactions were investigated. Victims were found to submit in a greater proportion of aggressive initiations and were dominant in fewer aggressive episodes than 'contrasts'. However, 'contrasts' were not more often aggressive than victims. Possibly, socially competent children use non-aggressive assertion strategies. Additionally, the initiations of and reactions to rough-and-tumble play were coded. Unexpectedly, victims received more rough-and-tumble play initiations than others. The authors argue that this may be an indication that rough-and-tumble play is related to the emergence of victimization and dominance in newly established groups. Further, not only did victims display lower frequencies of persuasion attempts, but they were also more seldom rewarded. In sum, it was observed that non-assertive behavior is strongly related to the emergence of victimization. Moreover, the results indicated that submissiveness has preceded the development of victimization (Schwartz et al., 1993).

Patterson et al. (1967) conducted an observation study in nursery school which showed that chronically victimized children behaved in a way that reinforced their attackers and they would thus be repeatedly attacked. However, they also showed that in initially passive children, repeated victimization followed by successful counterattacks lead to an increase of aggressive behaviors (Patterson et al., 1967). The question remains whether this last finding indicates that these children successfully learned to defend themselves (one of the goals of assertiveness training) or whether they were on the pathway to becoming aggressive victims.

In sum, submissiveness seems to be a major correlate of victimization and is also a characteristic of extremely victimized children. However, this behavior pattern may only apply to passive victims. For bully-victims, fighting back, i.e. displaying reactive aggression, is probably also a frequent response to being victimized.

3.4   Withdrawal - Precursor or Consequence of Victimization?

Several investigators found that victimized children show withdrawing behavior (e.g. Schwartz, 1995, Perry et al., 1988). Withdrawal, i.e. not playing with other children, may be the cause or the effect of victimization. In addition, exclusion is in itself an indirect form of bullying.

Asendorpf (1990) suggested that withdrawal should be treated as a multidimensional concept. Two opposing motivational tendencies, social approach and social avoidance, characterize the three types of social non-involvement, namely shyness, unsociability, and peer avoidance. Similarly, Harrist, Zaia, Bates, Dodge and Pettit (1997) identified four clusters of socially withdrawn children: *unsociable*, *passive-anxious*, *active-isolated* and *sad-depressed*. Except for the last group, the clusters correspond with the types described by Asendorpf. Unsociable children were observed to prefer object play to social play. They were not considered to lack social skills but just preferred playing on their own. In contrast, passive-anxious or shy children might be caught in an approach/avoidance conflict. They would like to play with other children, but were inhibited. The third group, the active-isolated or avoidant children were probably children 'at risk'. They would like to play with other children, but were not able to find partners. Further, they were rejected by their peers and demonstrated non-normative social information-processing patterns, e.g. hostile attribution biases. The fourth group labeled 'sad-depressed' was not identified in other studies, this small group of children displayed high self-isolating behavior and scored very high on depression (Harrist et al, 1997). Withdrawal might be the cause or effect of social difficulties. It is not clear, what type of withdrawal is characteristic of the withdrawing behavior found in victims. Perhaps the behavior of the last group, the sad-depressed, is the result of experienced victimization. Victimized children were found to be lonely and depressed (Kochenderfer & Ladd, 1997; Crick & Bigbee, 1998; Alsaker, 1997). On the other hand, the active-isolated children were perhaps excluded, i.e. indirectly bullied, by their peers. Therefore, it is important to differentiate between 'self-withdrawing' behavior, i.e. unsociability, and active isolation by others.

However, not all victimized children seem to be unsociable. Patterson et al. (1967) found that more socially active children were more often victimized. According to Pellegrini et al. (1999), aggressive victimization was related to social activity. Thus, not all victimized children may be described as socially withdrawn.

In sum, withdrawing behavior may be a precursor or a consequence of being victimized. On the one hand, withdrawn children may be victimized as they are easy targets. On the other hand, withdrawal may also be a strategy to avoid further victimization.

3.5   *Victims and Bully-victims - Two Different Pathways to Victimization?*

The results with regard to withdrawal and submissiveness indicate that passive victims and bully-victims are clearly distinct groups of children. Two different pathways to victimization seem to exist.

Egan and Perry (1998) suggested that some attributes found in chronically victimized children were consistent with 'internalizing behaviors'. Other victimized children displayed more 'externalizing behaviors'. Further, they argued that most victimized children lack social competencies such as friendliness, cooperativeness, prosocial behavior and a sense of humor. They investigated whether, in addition to behavioral vulnerabilities, low self-regard promoted victimization over time. 189 third- to seven-graders participated in the longitudinal study which was conducted during fall (time 1) and spring (time 2). Four components of the self-concept were assessed: global self-worth and self-perceived peer social competence, self-efficacy of assertion and self-efficacy of aggression. Victimization and behavioral risk factors were assessed using a peer-nomination inventory. The peer assessments yielded the following five factors or scales: victimization; physical strength; externalizing problems (aggression, dishonesty, disruptiveness); internalizing problems (anxiety-depression, withdrawal, hovering peer entry style); social skills. Physical strength and social skills were negatively related to victimization, whereas internalizing and externalizing behavior problems showed a positive association with victimization. Moreover, all four behavioral risk variables contributed uniquely to victimization at time 2, when controlling for victimization at time 1. Further, it was found that low self-regard predicted increased victimization over the school year, and that self-regard moderated the influence of behavioral risk variables on victimization. Thus, high self-regard has a protective function for children with behavioral vulnerabilities (Egan & Perry, 1998). Similarly, Hodges, Boivin, Vitaro and Bukowski (1999) found that over time internalizing and externalizing behavior problems contribute to victimization. These studies only used correlational methods of analysis. Although the authors did not identify groups of victims with more internalizing or externalizing

problems, their results indicate that there exist two different pathways to victimization. Nevertheless, internalizing and externalizing problems may coexist within the same child. Ladd and Burgess (1999) found that children who displayed both problem behaviors, i.e. aggressive/withdrawn children, suffered the highest levels of peer victimization.

3.6   Bullies' and Victims' Social Skills Deficit

Bullying as well as victimized children are commonly considered as being socially incompetent or lacking social skills. On the one hand, bullies display aggressive behavior which is conceived as socially incompetent behavior (Crick & Dodge, 1999). On the other hand, victimized children are rejected or neglected by their peers (Smith et al., 1993), which may be an indication of a social skills deficit.

The concepts of social skills and social competence were defined in many different ways. Dodge (1985) even suggested that there are as many definitions as investigators in the field (cited in Schneider, Attili, Nadel & Weissberg, 1989). Erwin (1993) demonstrated that social competence and social skills are conceptualized in two different ways. Social competence can be viewed as a trait characterizing an individual, whereas social skills reflect an ability in specific social situations. However, in most investigations, these concepts are used interchangeably. Oppenheimer (1989) stated that such terms as social competence, social behaviors, social skills, social outcomes, socially inadequate and maladjusted behavior, and social-cognitive competence are confused. In addition to the vagueness of the concepts, there are also many different ways of assessing social competence. The methods applied range from visual regard among peers, competitive dominance interactions, and sociometric measures to global ratings (Vaughn & Waters, 1981). However, most of these measures assess the outcome of social skills, i.e. peer relations, and not the behavior itself. Erwin (1993) stated that most researchers follow a deficit model of social skills. The behavioral characteristics of socially popular children are compared with less popular or rejected children. The behavioral differences found between these groups of children will thus be used to identify social skills, i.e. lack of social skills in unpopular children. This approach yielded interesting results, e.g. in comparison to average children, popular children are less aggressive, less withdrawing, more sociable and have higher cognitive abilities (Newcomb, Bukowski & Pattee, 1993). Nevertheless, it may be questioned whether the social

outcome of popularity or rejection is enough to establish differences on an individual level. Popularity and rejection cannot be viewed independently of the peer group. There seems to exist confusion between the individual and group level. Surely, there are relations between a child's social status and his or her individual behavior (see Chapter 5). Nevertheless, social skills or the lack of social skills are probably only one factor contributing to a child's social status. Therefore, in agreement with Erwin (1993), I define social skills as representing the learned behaviors that children use in social interactions. In addition, social skills implicitly refer to positively evaluated behaviors, i.e. positive social behaviors such as sociability, cooperativeness or prosocial behavior.

Several studies established that victimized children were rejected or neglected (e.g. Smith et al., 1993, Perry et al., 1988). According to the social skills deficit hypothesis (Erwin, 1993), they are thus considered as lacking social skills. In fact, Egan and Perry (1995) found that social skills were negatively related to victimization, i.e. victimized children were not as prosocial and friendly as non-victimized children. Likewise, Schwartz et al. (1993) observed that victimized children more frequently displayed parallel play but were less often involved in social conversation than children of the comparison group. They concluded that victims display socially incompetent behavior.

The finding that aggressive behavior is related to peer rejection is well-established (Asher & Coie, 1990). Following the social skills deficit hypothesis, aggressive children supposedly lack social skills. However, this does not seem to be true for all aggressive children. Mize and Ladd (1990) found a subgroup of aggressive children in their study who did not lack social skills. Instead, these children used aggressive behaviors in a strategic way in order to achieve their goals. According to Smith and Sharp (1994), some of the bullying children seem to be socially skilled and are able to manipulate situations to their advantage.

Pepler, Craig and Roberts (1998) conducted an observational study. The findings of this study also indicated that not all aggressive children lack social skills. 17 aggressive and 22 non-aggressive first- to sixth-graders were filmed on the playground using video cameras and remote microphones. The group of aggressive children were selected by their teachers as participants for a social skills training program. The playground observations only partially confirmed the social skills deficit hypothesis. Aggressive children displayed higher rates of antisocial behaviors, but also higher rates of 'prosocial' behaviors than non-aggressive children. Thus, the lack of social

skills may not lie in producing 'prosocial', but in managing aggressive behaviors. In general, aggressive children were more socially active than non-aggressive ones (Pepler et al., 1998). It is important to note that in this study, 'prosocial' behaviors were defined as the opposite of antisocial behaviors, i.e. all behaviors that were not antisocial were labeled 'prosocial'. Thus, this study did not investigate prosocial (e.g. helping and sharing) and cooperative behavior, but sociability. The finding that aggressive children display high rates of social interaction corresponds with the results of Patterson et al. (1967) who also established that aggressive children were socially very active.

These findings indicate that not all children who are aggressive or who bully lack social skills. In fact, there is some debate about whether bullying children really lack social skills (see Sutton, Smith & Swettenham, 1999a, 1999b; Crick & Dodge, 1999). Sutton et al. (1999a) argued that the popular stereotype of a bully as a powerful but 'oafish' person with little understanding of others may not apply to all bullying children. Some bullies need good social cognition in order to manipulate others, inflicting distress in subtle and harmful ways while avoiding detection. These skills are particularly useful in indirect forms of bullying (Sutton et al., 1999a). Therefore, bullying is not necessarily a socially incompetent but a clearly socially undesirable behavior (Sutton et al., 1999b).

This debate emphasizes the importance of differentiating between various subgroups of aggressive and bullying children. Possibly, bully-victims correspond with the picture of the aggressive-rejected child, whereas bullies might be socially skilled children who use their abilities in order to dominate and humiliate other children.

4   Peer Relationships of Bullies and Victims

Peers can directly influence bullying occurrences by intervening and helping the victim or by supporting the bully. Salmivalli et al. (1996) criticized the fact that although bullying is commonly conceived as being a social activity, the role of other children in the group is seldom assessed. In their study they identified other children as being reinforcers of the bully, assistants of the bully, defenders of the victim, or outsiders.

   Bullying unfolds within the peer group where children form relationships with each other. Thus, peer relationships such as friendships may have an impact on occurrences of bullying. On the one hand, aggressive children tend to affiliate and may thus reinforce their negative behavior patterns. On the other hand, children form and maintain friendships which might protect them against victimization.

4.1   'Peer Relations' - Social Relationships or Social Status?

There is consensus among investigators that 'peer relations'[9] contribute uniquely to children's social and emotional development (e.g. Hartup, 1983; Asher & Parker, 1989; Rubin, 1990). As Bukowski and Hoza (1992) pointed out, 'peer relations' is a very broad term which includes very different concepts, such as friendship and popularity. They defined popularity as the experience of being liked or accepted by the members of one's peer group, whereas friendship is the experience of having a close, mutual, dyadic relation. Therefore, popularity is a general, group-oriented, unilateral construct. In contrast, friendship is considered as a specific, dyadic, bilateral construct.

   This differentiation between dyadic relationships and more group-oriented concepts, such as social status, popularity and rejection, or centrality, is made by various investigators (e.g. Bigelow, Tesson & Lewko, 1996; Cairns, Cairns, Neckerman, Gest & Gariépy, 1988; George & Hartman, 1996; Parker & Asher, 1993; Ladd, 1989; Sullivan, 1953).

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[9]   I differentiate between *'peer relations'* (general term used in peer relations research encompassing friendships and social status) and *peer relationships* (social relationships among peers)

Hinde (1987) summarized eight important dimensions for describing relationships: content; diversity; quality; relative frequency and patterning of interactions; reciprocity vs. complementarity (e.g. power and dominance); intimacy; interpersonal perception; and commitment. Further, a relationship is not a static entity but constitutes a process. According to Bigelow et al. (1996), a meaningful social relationship consists of mutually constructed attempts to order the relationship. Friendships are commonly assessed using peer nominations (Bukowski & Hoza, 1992). Children are asked who their best friend is. Children are considered as mutual friends when they nominate each other. Only when the reciprocity of nominations is considered, the relationship between two children can be assessed. Unilateral nominations as friends or as liked do not measure relationships, but the position or standing in the group, i.e. social status.

Several studies revealed that popularity and having friends may be related but are not identical. For example, George and Hartmann (1996) demonstrated that although unpopular children were less likely to have a reciprocal friend, the majority (77%) of them had at least one mutual friend. One of the most controversial topics in peer relations research is the question as to whether aggressive children have positive peer relations. Aggression is related to peer rejection (see Asher & Coie, 1990). Nevertheless, in adolescence, aggressive children cluster together, e.g. in delinquent gangs. Patterson, DeBaryshe and Ramsey (1989) proposed a developmental model whereby childhood aggressive behavior and conduct-disorder lead to peer rejection. In adolescence these 'rejected' children find each other and form a delinquent clique. This 'childhood-rejection-to-adolescence-deviance' hypothesis (Cairns, Cadwallader, Estell & Neckermann, 1997) is a widely accepted explanation. Nevertheless, Cairns and Cairns (1991) demonstrated that this controversial finding is possibly a methodological artifact due to a confusion of levels of analysis. The authors studied networks of aggressive and non-aggressive children. They found that aggressive children were less popular, but that they did not have fewer reciprocated friendships than others. Therefore, measures of *social status*, such as popularity or rejection, should not be confused with measures of *peer relationships*, such as friendships or social networks. Further, some studies revealed that a lack of peer group acceptance and a lack of friends contribute uniquely to loneliness and social dissatisfaction (Parker & Asher, 1993; Kochenderfer, Ladd & Coleman, 1997). Moreover, affection

and intimacy can be found in friendships, whereas a sense of inclusion mainly derives from social acceptance in a group (Bukowski & Hoza, 1992).

Therefore, it is important to consider both dyadic and group-oriented constructs. Accordingly, I differentiate between peer relationships (e.g. best friends or playmates) and social status (e.g. social preference) of a child (see Chapter 5).

4.2   Friendships and Other Peer Relationships - Definitions and Functions

Sullivan (1953) emphasized the role of dyadic relationships for the development of the self-concept. He defined 'chumship' as a close, intimate, mutual relationship with a same-sex peer. In preadolescence, these close friendships serve several functions, such as providing affection or promoting the growth of interpersonal sensitivity (Sullivan, 1953). Since then, several attempts to catalog the benefits of friendships were undertaken (Asher & Parker, 1989). Asher and Parker summarized the most frequently mentioned functions of friendship: "(a) fostering the growth of social competence, (b) serving as sources of ego support and self-validation, (c) providing emotional security in novel or potentially threatening situations, (d) serving as sources of intimacy and affection, (e) providing guidance and assistance, (f) providing a sense of reliable alliance, and (g) providing companionship and stimulation." (Asher & Parker, 1989, p. 6). Additionally, Lewis and Feiring (1989) described protection as one of the functions of friendship. This protective function may be important with respect to victimization.

Although Sullivan (1953) emphasized the role of friendships in preadolescence, friendships may also be important for younger children. Howes (1989) investigated friendships among preschool children. She defined friendships using the criteria of reciprocity and affect, i.e. children may be considered as friends when they select each other as friends and when they enjoy each other's company. In her study involving preschool children (age range: 13 month to 6 years), the author found that children's friendships were quite stable over a two-year period (Howes, 1989). Parker and Gottman (1989) proposed a developmental model of friendship interactions. According to that model, friendships in early childhood are mainly characterized by coordinated play. The underlying themes are maximization of excitement, entertainment and satisfaction in play (Parker & Gottman, 1989). In kindergarten, the most frequent activity is playing. Thus, for preschool children, having positive relationships to several children may be even more important than an exclusive

relationship with the best friend. According to Selman (1980), kindergarten children mainly conceptualize friends as persons who repeatedly interact with one another (cited in Gutzwiller-Helfenfinger, 2000). Therefore, for kindergarten children not only having one best friend, but also having several playmates is important. Neilson-Hewett, Bowes, Debus and Mok (1998) showed that children have broader friendship networks than commonly assumed. According to Bukowski and Hoza (1992), it is important to assess whether a child has at least one best friend, but also the number of friends as well as friendship quality.

Although the study of social relationships among peers has focused heavily on children's friendships, they are not the only relationships. Hartup (1983) distinguished between acquaintances and friends. Acquaintances are peers who are familiar with one another. In contrast, emotional attachments exist between friends. Similarly, Oswald (1993) differentiated between various kinds of group formations in the peer group, such as cliques, groups, interaction sets ('Interaktionsfelder') or networks ('Geflecht'). These formations can be distinguished in terms of hierarchical organization, interactional continuity and the feeling of belonging together. Nevertheless, most empirical investigations on peer relationships concentrate on children's friendships.

Cairns, Xie and Leung (1998) argued that the focus on children's dyadic experiences, i.e. friendships, within the peer group gives only a limited insight into children's peer relationships. Children are not only involved in dyadic relationships but are also members of larger social groups. An analysis of children's relationships at the network level provides additional information. Self-reports of friendships and social groups are biased. For example, children tend to omit the least desirable individuals. To overcome these biases, the authors developed a new assessment technique (SCM-technique) which allows to identify social groups (or social clusters) by means of peer informants (see Cairns, Gariépy, Kindermann & Leung, 1998). Cairns, Leung, Buchanan and Cairns (1995) defined social networks and social groups as follows: "Peer social network is an inclusive concept, referring to the social relations among all students and groups of students in a specific context (classroom, grade, school). Social group refers to a subset of persons (cliques or clusters) within the network. Not all persons in a network necessarily belong to a social group, and some persons may belong to two or more groups." (p. 1332)

Accordingly, not only children's best friendships are of interest, but also their playmates and social groups. The affiliative patterns of bullies, bully-victims and victims may have distinctive effects on the emergence of bullying.

4.3   Affiliative Patterns of Bullies

Proximity, age, and similarity are the most basic factors in the selection of friends (Epstein, 1989). Children mainly choose similar peers as friends or playmates, such as children of the same age and same gender. Peer groupings in childhood are mainly gender-segregated (Leaper, 1994; Maccoby & Jacklin, 1987; Archer, 1992). Gender segregation begins very early, whereby girls show the preference earlier than boys (LaFreniere, Strayer & Gauthier, 1984). Maccoby and Jacklin (1987) explained the emergence of gender-segregation by distinct play styles of boys and girls. Boys prefer rough, physical and body-contact play, a style which girls find aversive and they thus tend to avoid the boys. Alexander and Hines (1994) found that 4- to 8-year-old children chose imaginary playmates not only on the basis of the target's gender, but also based on play styles such as rough-and-tumble play or activity level. Haselager, Hartup, Lieshout and Riksen-Walraven (1995) investigated similarities between friends and non-friends (mean age: 11.1 years). They found that friendship similarities varied from attribute to attribute. The greatest similarities were found in antisocial behavior.

In sum, salient characteristics of potential playmates lead to playmate selection. These characteristics are sex and age, as well as acting out behaviors, such as aggression or rough-and-tumble play. Therefore, it can be assumed that bullying children cluster together. In fact, a few studies revealed that this is the case. Pellegrini et al. (1999) investigated 154 fifth-graders. The analyses revealed that bullies received the most reciprocal friendship nominations from other bullies and more from non-involved children than from victims. Moreover, behavioral and attitudinal similarity were related to within-group affiliation. Bullies had less negative attitudes toward bullying than victims. Likewise, Huttunen and Salmivalli (1996) reported that children with behavioral similarities regarding bullying tended to associate. Moreover, bullies, assistants, and reinforcers belonged to larger friendship networks than defenders, outsiders and victims. Boulton (1999) carried out playground observations among 8- to 9-year-old children. The analyses revealed that for boys (but not for girls), group size was positively correlated with the bully score.

Grotpeter and Crick (1996) investigated friendships of relationally and overtly aggressive children. A total of 509 third- to sixth-grade children participated whereof 315 had a reciprocated friendship and were included in the analysis. The participants completed peer nominations on friendship and aggression as well as questionnaires on friendship quality and importance of friendship quality. Relationally aggressive children had more exclusive and intimate friendships, further, they were also relationally aggressive within their friendships. In contrast, overtly aggressive children reported using aggression together with their friends to harm those outside the friendship. Interestingly, this was also true, when the friend was not labeled as being aggressive.

Cairns et al. (1988) investigated social networks of 695 fourth- and seventh-graders. Highly aggressive children were neither less likely to be members of a social cluster, nor did they have fewer reciprocal friendships. The analyses also revealed that aggressive children tended to affiliate with aggressive peers. Moreover, some aggressive children were nuclear members of aggressive cliques, i.e. leaders in their social groups. As Pellegrini et al. (1999) suggested, proactive aggression and dominance assertion may be important means by which bullies achieve leadership within their own social group. In contrast, bully-victims presumably display more reactive aggression. Thus, bully-victims supposedly affiliate with other aggressive children, but they do not have leading functions in their social groups.

Not only do children choose similar friends and playmates, but they also adapt their behavior to each other. Dishion, Patterson and Griesler (1994) proposed a confluence model of the development of antisocial behavior. This model describes the influence of peers on antisocial behavior. Accordingly, aggressive children are rejected by the peer group. Due to this peer rejection, there is only limited availability of potential friends. Therefore, they often affiliate with other rejected peers. Within these friendships, deviant behavior may be reinforced. Additionally, ecological factors such as neighborhoods and schools may affect whom children become friends with (Dishion et al., 1994). There is some debate as to whether aggressive children cluster together because they are rejected or due to their behavioral similarity (see Cairns & Cairns, 1991).

Regardless of how affiliation patterns are caused, the selection of friends seems to be crucial for the development of antisocial behavior. Patterson et al. (1967) suggested that the kind of friendship pairing in which the child is involved determines the

behavior-shaping process. For example, some peer groups provide support for deviant and delinquent behaviors, whereas in other groups achievement-related behaviors are positively reinforced. As children are active participants in their development, the affiliation with certain peers creates a particular social environment which in turn shapes the child's own behavior and attitudes (Sabongui, Bukowski & Newcomb, 1998). Thus, affiliation with aggressive peers may have long-term consequences. In fact, one of the pathways to delinquency is the association with deviant peers (Vitaro, Tremblay, Kerr, Pagani & Bukowski, 1997; Cairns et al., 1997). As Cairns and Cairns (1991) stated: "....many young people encounter problems because of their social affiliations, not because of their disaffiliation" (p. 267). Olweus (1991) reported that boys who were identified as bullies in grades 6 to 9 were more likely to have a criminal conviction in young adulthood. Likewise, Lane (1989) and Tattum (1989) demonstrated the relationship between bullying and violent crime. These findings may be partly explained by the confluence model described above.

   In sum, bullies seem to be well embedded in the peer group. They have many friends and tend to affiliate with other aggressive children. This affiliation of behaviorally similar children may lead to a reinforcement of each others' bullying behavior.

4.4   Victims' Lack of Friends

In contrast to bullies who seem to be well embedded in the peer group, victims were found to have few friends. Having a friend may protect children from being victimized. Lewis and Feiring (1989) proposed that friendships also have a protective function. One of the situations which requires protection, is aggression from other peers (bullies). Kochenderfer and Ladd (1997) found that kindergarten boys who reported having a friend were less likely to be stably victimized. Having a friend, i.e. not being alone, could shift the power imbalance between bully and victim. Thus, having a friend would be particularly important for children who are already victimized or who are behaviorally vulnerable.

   Olweus (1978) as well as Rigby (1996) reported that victims had few friends. Likewise, Boulton and Underwood (1992) investigated 8- to 12-year-old children using self-report measures. Victims reported less often having many good friends in their class, they were less likely to be happy during playtime, they were more often alone during playtime, and they also more often reported feeling lonely at school.

Grotpeter, Geiger, Nukulkij and Crick (1998) investigated reciprocal friendships of relationally and physically victimized children. Children from the original sample without reciprocal friendships were excluded from the analyses. This procedure indicated that fewer victimized children had reciprocal friendships than non-victimized children. Approximately 80% of non-victimized children had a reciprocal friendship, whereas only 46% of the relationally victimized children and 60% of the physically victimized children had a mutual friend. Unfortunately, victims not only had few friends, but also a lower friendship quality and satisfaction (Grotpeter et al., 1998). Ray, Cohen, Secrist and Duncan (1997) reported that rejected boys were rated high on aggression and victimization and had the lowest number of friends. Playground observations revealed that 'time spent alone' was significantly associated with victimization. Among boys, this variable even predicted an increase in victimization five months later (Boulton, 1999).

Pellegrini et al. (1999) reported that victimization and aggressive victimization scores were negatively associated with the number of reciprocal friendships. Nevertheless, victims received reciprocal nominations from other victims, bullies, and non-involved children with equal frequency. The authors concluded that, in contrast to other studies, victims did have friends. Ladd, Kochenderfer and Coleman (1997) reported that peer victimization was negatively correlated with the number of friends and with having a best friend. Thus, victimized children seem to have fewer reciprocal friendships and have less often a best friend than other children. In addition, children who did not belong to a network within the peer group were more often found to be victims (Huttunen & Salmivalli, 1996).

Moreover, it is not only relevant whether a child has reciprocal friends or not, but also who that friend is. As Pellegrini et al. (1999) proposed, having bullies as friends may prevent being victimized. However, in their study, victims received most reciprocal nominations from other victims. Having friends who were victims themselves did not serve the suggested protective role, in contrast to having bullies or non-involved children as friends (Pellegrini et al., 1999). Likewise, Hodges et al. (1997) found that victims tended to form friendships with children who were also victimized. Moreover, children who were weak did not provide adequate protection. In sum, although having friends would be a protection against victimization, victims were found to have few friends and those were presumably the 'wrong' friends.

Friendships may not only *protect* from victimization, but may also *buffer* children's negative experiences within the peer group, such as peer rejection or victimization. Parker and Asher (1993) found that friendships may protect against loneliness above and beyond peer acceptance, i.e. low-accepted children were less lonely when they had a best friend in class. Grotpeter et al. (1998) suggested that having a friend may buffer children not only against negative consequences of rejection, but also against negative consequences of victimization. However, they found that victimized children had low friendship qualities and were less satisfied with their friendships. Some of the peer victimized children were even victimized by their friends. Thus, the buffering role of friends could not be established (Grotpeter et al., 1998). Likewise, Ladd et al. (1997) demonstrated that friendships, peer acceptance, and victimization contributed uniquely to children's school adjustment. Particularly, they found that the number of friends, peer group acceptance, and victimization were related to loneliness and social dissatisfaction. Peer victimization accounted uniquely for loneliness. Thus, victimized children reported being lonely, even if they had a best friend or if they were well-accepted in their peer group.

In sum, friendships might protect children from being victimized but victims were found to have few friends and tend to form friendships with other victimized or weak children. Not much is known about the social relationships of bully-victims. On the one hand, they presumably affiliate with other aggressive children. On the other hand, studies revealed that bully-victims had fewer friends than all other children (Ray et al., 1997).

4.5   Victimization Within Friendships

Victims do not only have few friends, some of them are even victimized within their friendships. For those children, bullying may be considered as the 'dark side of dyadic relationships' (Hartup & Abecassis, 1999). Grotpeter et al. (1998) investigated whether (peer) victimized children were also victimized by their friends. A total of 311 third- to sixth-graders participated in the study. Peer nominations were used to assess friendships, aggression, and various forms of victimization. Additionally, children completed measures of friendship quality and friendship satisfaction whereby the name of each child's reciprocal friend was written on the questionnaire. Only children with reciprocated friendships were included in the analyses. The authors found that relationally and physically victimized children viewed their friendships as low in

quality and unsatisfactory. Moreover, victimized children reported relatively high levels of victimization within their friendships. Thus, many children were not only victimized by their peers but also by their best friends (Grotpeter et al., 1998). Crick and Nelson (1998) conducted a similar study. They found that victimization within friendships made significant, unique contributions to social-psychological adjustment above and beyond peer victimization.

There is an increasing awareness that interactions between friends may also have negative characteristics (Berndt, 1999). Conflicts are very common among friends (Hartup, Laursen, Stewart & Eastenson, 1988). However, conflicts among friends are not only negative occurrences. The ability to engage in and to resolve interpersonal conflicts stimulates children's development and marks the quality of their friendships (v. Salisch, 1991).

Nevertheless, there are also other kinds of negative interactions which violate the equality between peers: Friends sometimes show off, boss each other around, and assert their superiority by 'putting down' one another (Berndt, 1999). Friendships and other peer relationships may also serve to express individual aggression and control (Cairns & Cairns, 1991). Dishion, Andrews and Crosby (1995) investigated friendships of antisocial adolescent boys. They reported that relationships of antisocial dyads were low in quality. The presence of bossiness and coercive behavior accounted for compromised friendship quality. They concluded that antisocial friendships provide another context for proactive coercion, i.e. bullying (Dishion et al., 1995).

According to Hartup (1989a), "...the essentials of friendships are reciprocity and commitment between individuals who see themselves more or less as equals" (p. 46). Therefore, coercion and bossiness, and particularly victimization within friendships violate the equality norm. With regard to victimization among friends, two dimensions of describing relationships are important: the patterning of interactions as well as the degree of reciprocity (Hinde, 1987). In friendships involving victimization, the interaction patterns are - at least sometimes - negative. Further, instead of being reciprocal, the relationship is a means of displaying power and dominance. Thus, the horizontal qualities typical for peer relationships (Russell, Pettit & Mize, 1998) are non-existent.

The question may be addressed whether such relationships may really be considered to be friendship. At least, they can only be regarded as low-quality friendships. Friendship quality was found to be predictive for adjustment and social well-being

(e.g. Parker & Asher, 1993; Bukowski & Hoza, 1989; Ladd, Kochenderfer & Coleman, 1996). Coie et al. (1991) showed that victims in asymmetric aggressive dyads did not dislike their bully and sometimes even imitated the bully's behavior. Thus, we may ask why do victims maintain their - obviously unhealthy - friendships? Maybe these children have nobody else to play with and prefer having a bully as friend than being alone.

In sum, victimization within friendships does not correspond to the common conception of peer relationships as involving reciprocity and equality. Nevertheless, some children are victimized by their friends.

5   Social Status of Bullies and Victims

Not only peer relationships such as friendships or peer affiliation may have an impact on bullying behavior, but also more indirect processes in the peer group. Olweus (1978) identified processes in the peer group that may heighten the frequency of bullying, such as social contagion or cognitive changes. Pepler et al. (1995) described the process of peer reputation as follows: The victim is perceived as weak, whereas most children fear the bully and prefer to take sides with the bully in order to prevent becoming victims themselves. This process may lead to an increase of the bully's status and may decrease the victim's standing in the group. The bystanders may begin to imitate the bully's behavior, particularly when this child has a high social status. In contrast, when children with a high social status intervene, their behavior may be imitated. In fact, it was shown that only high status children intervened in bullying episodes (Salmivalli et al, 1996, Craig & Pepler, 1995). Accordingly, social status plays an important role in the bullying phenomenon.

Children reported that bullies harass others to gain social status and affiliation to a group (Baldry, 1998). In fact, some bullies were found to have average or even high social status (Cairns et al., 1988; Rigby, 1996). In contrast, victimized children were rejected by their peer group (Smith et al., 1993; Olweus, 1995). Thus, peers seem to have indirect effects on bullying behavior. Bullying a child who is liked may lead to general peer disapproval of and adult sanctions against bullies. Consequently, being liked may minimize victimization (Olweus, 1995).

Social status is one of the most intensively investigated topics in peer relations research. Aggression is one of the major correlates of peer rejection. Moreover, victimization is strongly related to peer rejection. However, not all aggressive children are rejected (bullies vs. bully-victims) and not all rejected children are victimized (Schuster, 1997).

5.1   Social Status - Concepts and Assessment

Social status[10] encompasses concepts such as leadership, social power, prestige, acceptance, and popularity (see Hartup, 1983; Beerlage, 1993). Popularity or social status does not assess social relationships but the child's standing or position in the group. Popularity is a general, unilateral, group-oriented construct that represents the view of the group toward an individual (Bukowski & Hoza, 1992). According to Beerlage (1993), popularity is mainly defined in terms of its operationalization. Popularity reflects the social appreciation ('Anerkennung') of a child identified by means of sociometric procedures or teacher ratings.

In peer relations research, most attention has been given to differences between children regarding popularity with peers (Schaffer, 1996). Particularly, children at the lower end of the popularity scale were intensively investigated. One of the reasons for the interest is that these children are at risk for social maladjustment (Asher, 1990). Another reason for the extent of research on this topic is probably of methodological nature. Sociometric measures are easily applicable and allow to classify children according to the nominations they received.

Moreno (1934/1974) developed sociometric measures to assess relations in a group. He was not only interested in individuals' positions in the group, e.g. being a leader, but also in the relationships between individuals (Bukowski & Cillessen, 1998). Nevertheless, in current investigations, sociometric measures are usually reduced to the identification of sociometric status groups. As Bukowski and Hoza (1992) stated, despite the dual consideration of the dyadic and the group level in theoretical literature, the empirical literature has been rather exclusively focused on group variables, i.e. popularity.

Liking and disliking are not unidimensional constructs, i.e. being not liked and being disliked are not identical (Hartup, 1983). In order to assess the two-dimensionality of the construct, positive and negative nominations are used to assess children's sociometric status in most investigations. Children are asked to name three or five peers whom they like or dislike, respectively. Various frames of reference are used: choices are obtained for seating or play companions, work partners or best friends

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[10] I use *social status* as a general term which encompasses sociometric status measures such as popularity, acceptance, liking, or rejection as well as centrality within the peer group

(Hartup, 1983). Moreover, likeableness (i.e. social preference) and visibility (i.e. social impact) are used to assign children to various sociometric status groups. Peery (1979, cited in Hartup, 1983) differentiated between four sociometric status categories: *populars*, *amiables, isolates,* and *rejects*. In order to assign the subjects to one of the four categories, the difference between positive and negative nominations (social preference) and the absolute number of nominations were used (social impact). The use of such a two-dimensional approach revolutionized sociometric classification (Newcomb et al, 1993). Likewise, Coie et al. (1982) proposed a classification system which allows to differentiate between five status groups. Positive and negative nominations were used to assess acceptance (number of most liked nominations) and rejection (number of least liked nominations). These nomination scores were standardized and used to assign children to one of five categories, namely, *popular*, *rejected*, *neglected*, *controversial,* or *average* status. Newcomb and Bukowski (1983, cited in Newcomb et al., 1993) proposed to use probability methods instead of standard scores. Nevertheless, the procedure to categorize children into five sociometric status groups (see Table 5.1) is currently widely applied.

Table 5.1:   Standard sociometric status classification (after Newcomb et al., 1993)

Sociometric Status Group	Impact	Preference
Popular	high visibility	well liked
Rejected	high visibility	poorly liked
Neglected	low visibility	neither liked nor disliked
Controversial	high visibility	liked as well as disliked
Average	about the mean on visibility	about the mean on likeableness

In addition to this classification procedure, acceptance (positive nominations) and rejection (negative nominations) are also used in linear analytical approaches. Rating scales and more rarely paired comparison techniques are used as alternatives to peer nominations (Bullock, Ironsmith & Poteat, 1988; Hymel, 1983). Despite their widespread use, sociometric classification systems produce groups whose membership is neither stable nor homogenous (Newcomb et al., 1993). Newcomb et al. (1993) concluded that sociometric methods may be a good starting point for the identification of children at risk for later maladjustment and psychological disturbance. But these methods need to be supplemented by other techniques. Moreover, there are ethical considerations against the use of negative nominations.

Cairns, Gariépy et al. (1998) proposed an alternative to sociometric measures. This new procedure (SCM-technique) allows to identify social groups by means of peer informants. In addition, the frequency of nominations received is used to establish network and group centrality. Thus, not only is a child's social position in the whole class assessed, but also the centrality within his or her social group. These centrality measures are used as substitutes for sociometric popularity measures (e.g. Rodkin, Farmer, Pearl & Van Acker, 2000; Xie, Cairns & Cairns, 1998).

5.2   Behavioral Correlates of Social Status

Despite their methodological limitations, sociometric classifications are widely used. Newcomb et al. (1993) conducted a meta-analysis involving 41 studies of the research area. They established considerable behavioral differences between children with popular, rejected, neglected, and controversial status in contrast to children with an average sociometric status (see Table 5.2). Popular children can be described as non-aggressive and sociable. In contrast, rejected children are highly aggressive and display high levels of withdrawing behavior and are not very sociable. Neglected children are less aggressive than average children, but display more withdrawal and are averagely sociable. The group of controversial children can be described as disruptive, but they are not lonely and quite sociable.

Table 5.2:   Behavioral correlates of children's peer status (after Newcomb et al., 1993)

	Popular Children	Rejected Children	Neglected Children	Controversial Children
Aggression				
Disruptive	-	+	-	+
Physical	=	+	=	
Negative	-	+	=	
Composite	**-**	**+**	**-**	**+**
Withdrawal				
Loneliness	-	=	=	=
Depression	=	+	-	
Anxiety	=	+	=	
Composite	**-**	**+**	**+**	**=**
Sociability				
Social interaction	=	-	-	+
Communication skill	=	=	=	
Problem solving	+	=	=	
Positive social actions	+	-	-	+
Positive traits	+	-	-	+
Friendship skills	+	-	=	+
Adult interaction	=	-	=	=
Composite	**+**	**-**	**=**	**=**

- : Children have significantly lower scores than average children (p < .05)
+ : Children have significantly higher scores than average children (p < .05)
= : No significant differences

Social withdrawal and aggression are major correlates of rejection. However, rejected children are a heterogeneous group. French (1988, 1990) identified subtypes of rejected boys and girls. One cluster may best be described as aggressive and the other as withdrawn. Furthermore, children's entry behavior in peer groups seems to be an important factor with regard to social status. Putallaz and Wasserman (1990) reported that unpopular children used ineffective entry behaviors such as prolonged hovering or engaging in disruptive, non-normative behavior. Accordingly, unpopular children were less often successful in entering ongoing peer activities.

Moreover, there seem to be developmental trends with regard to behavioral correlates of rejection. Coie, Dodge and Kupersmith (1990) summarized studies on social behavior and social status. High-status children in preschool or primary grades (ages 4-7) could be described as helpful and considerate of others, they followed the

rules for peer interaction and were very actively engaged in positive peer interaction. In this age group, social rejection was related to aggression, rule violations, hyperactivity, and disruptiveness. However, there were only slight indications for the relation between social withdrawal and rejection. The authors suggested that withdrawal may be a consequence, rather than a cause of rejection.

Aggression was found to be the primary correlate of peer status at all ages (Coie et al., 1990). For example, McNeilly-Choque, Hart, Robinson, Nelson and Olsen (1996) observed aggressive behaviors of 241 four- to five-year-old children. They indicated that more overtly and relationally aggressive children were less accepted by their peers. Nevertheless, not all types of aggressive behavior have equally negative implications for peer status. Dodge, Coie et al. (1990) found that bullying was more tolerated by first-graders than by third-graders, while reactive and instrumental aggression were associated with peer rejection. Further, not all aggressive children were found to be rejected. For example, controversial boys were also among the most aggressive children (Coie et al., 1990).

The implicit assumption of most correlational studies in this research tradition is that children's social behavior is primarily responsible for peer rejection. As Foster (1989) stated, although a child's behavior is a plausible cause of rejection or acceptance, it is also conceivable that the experience of being liked or rejected produces the child's behavior. Therefore, longitudinal studies or even experimental designs are necessary to establish causalities.

Denham and Holt (1993) conducted a longitudinal study among preschool children. They found that social behaviors were related to likeability. However, in the subsequent assessment phase, earlier social status was found to more accurately predict likeability than child behavior. Thus, peer reputation contributed to a child's social status. In contrast, Dodge, Coie et al. (1990) showed that social preference in newly established play groups involving unacquainted boys was significantly correlated with social preference in the classroom. This finding indicates that children's social behavior is, at least partially, responsible for social status. According to Ladd, Price and Hart (1990), the hypothesis that children's behaviors contribute to their peer status was more strongly supported than the alternative hypothesis that children's prior peer reputations influence their subsequent behavior.

In addition, specific behavior does not occur in a vacuum, but in the context of other behaviors and in specific settings. Foster (1989) emphasized that the social impact of

behavior can only be examined in its behavioral and situational context. Peer rejection is related to inappropriate behaviors such as withdrawal or aggression. Children's groups have their own norms for acceptable and appropriate behavior (Coie, 1990). Thus, the impact of a certain behavior pattern may not be the same in every peer group. Stormshak et al. (1999) tested the hypothesis whether the *person-group similarity model* or the *social skills model* accounted for peer preference. The person-group similarity model predicts that the acceptability of social behaviors will vary as a function of peer group norms. In contrast, the social skills model predicts that behavioral skill deficiencies reduce and behavioral competencies enhance peer preference. 2895 children in 134 first-grade classrooms participated in the study. Teachers rated children on aggression, inattention, withdrawal, and social competence. Further, children carried out sociometric interviews. They were asked to identify children whom they liked the best and the least. These nominations were used to establish social preference scores. Furthermore, children were asked to identify classmates who were aggressive, inattentive/hyperactive, prosocial, and shy/withdrawn. In order to analyze the data by means of hierarchical linear modeling, peer and teacher ratings were combined. The analyses revealed that the social evaluation of aggressive children was affected by the degree to which aggression was normative in the classroom. When aggression was non-normative in the classroom context, children's aggressive behavior was more likely to lead to low preference. This finding was particularly true for boys. Likewise, social withdrawal partially confirmed the person-group similarity model. However, the association between inattentiveness and social preference remained negative regardless of group norms. Similarly, prosocial behavior predicted peer preference across classrooms (Stormshak et al., 1999). Moreover, Sabongui et al. (1998) found that the friends' popularity predicted the targets' popularity to a considerable amount.

   According to Bukowski and Hoza (1992), popularity measures are unilateral indices of the overall degree of positive or negative regard that children receive from peers. Thus, children who receive many positive nominations should also receive much positive attention from peers. However, only a few researchers studied the behavior of peer group members toward children of differing levels of popularity. The authors summarized that the available empirical results support the external validity of the measures. For example, Masters and Furman (1981) reported that popular children received more positive behaviors than unpopular children. Likewise, Vaughn and

Waters (1981) stated that children who received many liked-peer nominations also received much visual attention from peers. Hymel, Wagner and Butler (1990) argued that the focus on the social skills deficit of rejected children has placed a large part of the responsibility for peer rejection on the target child. However, studies indicate that initial social behavior and reputation-based peer responses mutually influence each other. Cillessen and Ferguson (1989) indicated that not only a child's behavior but also peer expectations contributed to social status.

Coie (1990) proposed a theoretical model of peer rejection (see Table 5.3). He suggested that a child's social behavior is primarily responsible for rejection by peers. Nevertheless, the peers contribute to the emergence and maintenance of peer rejection. On the one hand, peers have different expectations from rejected and popular children which lead to differential interpretations and treatments. Moreover, children acquire a certain peer reputation. Thus, although the rejected child changes his or her behavior, this modification will not be recognized by peers. In sum, peer rejection seems to involve a vicious circle whereby the child's behavior and certain group dynamics interact.

Table 5.3:   Theoretical model of peer rejection (after Coie, 1990)

Precursor Phase ⇒	Emergent Status Phase ⇒	Maintenance Phase ⇒	Consequence Phase

• Distal causes
  - Early socialization
  - Temperament
• Proximal causes
  - Social information processing deficits
  - Emotional control
	• Social Behavior
	  - Aggressiveness and disruptiveness
	  - Social withdrawal
	  - Peer group entry behavior
	• Physical appearance
	  - Self fulfilling prophecy
	• Role of the group
	  - Different expectations, interpretation and treatment
	  - Group norms
		• Peer groups' behaviors toward rejected children change
		  - Peer reputation
		• Rejected children's behaviors become even more maladaptive
		  - Anticipated difficulties
		  - Being rejected as a part of child's social identity
		  - Rejected children may form a social group
		• No behavior change despite negative experiences
			• Disorder in adolescence
			  - School adjustment
			  - Delinquency
			  - Mental health problems

5.3   *Victimized Children's Low Social Status*

Victimization is strongly related to rejection. Schuster (1996) even suggested that rejection is a necessary but not a sufficient condition of victimization. Bully-victims

and victims are distinct groups of victimized children. Nevertheless, they share their negative experiences. Children of both groups are victimized and have a low status in their peer group.

Several studies established that victimized children have a low social status. Olweus (1978, 1995) as well as Smith et al. (1993) described victims, particularly provocative victims, as being unpopular or even rejected. Hess and Atkins (1998) found that children who were classified as aggressive victims received higher peer ratings of rejection. According to Dodge, Price et al. (1990), boys who were socially rejected in their classrooms were more likely to develop mutually aggressive dyadic relationships than average status boys. These boys might possibly be described as bully-victims.

Perry et al. (1988) reported that children's victimization scores were positively correlated with peer rejection and negatively correlated with peer acceptance. Graham and Juvonen (1998) identified victimized children by means of self-reports and peer nominations. Victims identified by peers scored high on rejection and low on acceptance. However, self-reported victims were not more disliked than non-victims. Ladd et al. (1997) indicated that peer acceptance was negatively correlated with victimization in kindergarten. Not only overt victimization forms but also relational victimization predicted peer rejection and loneliness (Crick & Bigbee, 1998; Crick & Grotpeter, 1996; Schäfer & Wellman, 1998). In sum, several studies established a positive linear association between victimization and peer rejection and a negative association between victimization and peer acceptance.

Moreover, victims were more often found in low status groups. Boulton and Smith (1994) reported that 28% of the victims were classified as rejected, 26% as neglected, and 22% as controversial. Bully-victims were not included in the analyses due to the small group size. Likewise, Munz (1997) showed that passive and provocative victims were more often in the rejected status group than bullies and children of the control group. Ray et al. (1997) reported that children with a rejected status scored higher on victimization and aggression. Hodges and Perry (1999) found that on the one hand, internalizing problems, physical weakness, and peer rejection contributed uniquely to increases in later victimization. On the other hand, initial victimization predicted increases in internalizing symptoms and peer rejection over time. The authors concluded that these reciprocal influences may explain the strong temporal stability of peer victimization.

Rigby and Slee (1992) investigated children's attitudes toward bullying. The analysis yielded three factors: (a) a tendency to reject children who are bullied by other children because of their supposed weakness; (b) a readiness to justify bullying and to enjoy the spectacle; and (c) a desire to support the victim. The majority of the children neither disdained victims due to their weakness nor admired bullies. Nevertheless, the authors identified substantial minorities who reported that they had little or no sympathy for victims. Although most children were opposed to bullying and tended to be supportive of the victims, a considerable extent of bullying was reported by the same children (Rigby & Slee, 1992). This result indicates that only a minority of children have positive attitudes toward bullying but that also other children seem to participate in bullying. Thus, their attitudes did not correspond with their actions. Maybe these children bully others due to their peer group context such as affiliation with bullies or because they are afraid of becoming the next victim.

Victims' low social status makes them vulnerable to being victimized. When children who are not liked are victimized, peers are possibly less likely to intervene in the bullying episode. Moreover, Pepler et al. (1995) suggested that victims are perceived as weak by their peers. In contrast, most children fear the bully and thus prefer to take sides with him or her to avoid becoming also a victim. This peer reputation process may lead to an increase in bully's status and to a decrease of the victim's standing in the group.

In sum, victims as well as bully-victims are not liked or even rejected by their peer group. Their low social status may be a precursor or the result of being victimized.

5.4   Bullies - The Success of the Powerful?

The findings with regard to victims' low social status are unequivocal, whereas bullies may have low, average or even high social status (Smith et al., 1993). Munz (1997) found that more than half of the bullies had a popular or average sociometric status. Likewise, Olweus (1978) stated that bullies were of average popularity. In contrast, Boulton and Smith (1994) reported that bullies had even more often a rejected sociometric status than victims. Moreover, bullies were significantly more often classified as controversial than non-bullies.

Coie and Dodge (1988) described controversial boys as follows: "The overall picture of controversial boys is one of socially and intellectually or athletically talented boys who are also more active, as well as more prone to anger and violations of rules,

than their teachers or peers like. Not surprisingly, they have a high impact on their peers and receive a mixed evaluation from them." (p. 827). This description probably also applies to - at least some - bullies.

Pellegrini et al. (1999) established that bullies affiliate with each other. Bullies displayed proactive and reactive aggression. However, popularity within the bully group was only related to proactive aggression and not to reactive aggression. The authors suggested that those children who used aggression effectively were leaders of the bully group. This finding corresponds with investigations of Cairns and collaborators (e.g. Cairns & Cairns, 1994; Cairns & Cairns, 1991; Cairns et al., 1988). Aggressive children tend to affiliate with other aggressive or antisocial children. Thus, some of the children, probably bullies, may even become leaders of such groups. Although bullies may be rejected by the majority of the group, they may become highly valued members of aggressive cliques or networks. Furthermore, being liked by one's own friends is probably more important than being liked by the whole group.

According to Rodkin, Farmer, Pearl and van Acker (1998), ethnographic research suggests that problem behavior may be positively related to popularity, at least for boys. The authors emphasized the importance of person-oriented approaches which identify individuals who are homogenous with regard to specific configurations of variables. In their study, they found a subgroup of 'popular - high problem behavior' boys with prominent social positions in the classroom. Although they were not able to identify an identical behavior configuration for girls, they found 'high aggressive - high academic' girls who had average popularity. In sum, social status of bullies seems to be related to gender and bullying forms.

Salmivalli et al. (1996) indicated that male and female victims as well as male bullies scored low on social acceptance and high on rejection, while female bullies did not. Female bullies were averagely accepted and not rejected. Xie et al. (1998) conducted a study among 510 fourth- and seventh-graders. Social status was assessed by means of the SCM-technique, i.e. network centrality. Further, social aggression (e.g. ostracizing, gossiping, alienation) as well as interpersonal conflicts were assessed. The analyses revealed that high levels of social aggression did not preclude membership in a social group. On the contrary, male and female participants with higher levels of social aggression tended to be more prominent persons in social networks. The authors suggested that social aggression presupposes the aggressor to be firmly embedded in the social system in order to be effective (Xie et al., 1998). This

study is inconsistent with the finding that relational aggression also leads to rejection (e.g. Crick, 1996; Crick & Grotpeter, 1995). Pakaslahti and Keltikangas-Jaervinen (1998) found that among 14-year-olds different types of aggression were associated with acceptance. Aggressive and rejected children were characterized more by intriguing and bullying than by arguing or fighting.

According to Olweus (1995), bullies' status decreases when they grow older. In high-school, bullies are less popular than in lower grades. This may indicate that bullying is - particularly among younger children - a status-enhancing activity. Hawley (1999) proposed a developmental model of social dominance which states that in kindergarten age coercive leaders are liked. Actually, Pettit, Bakshi, Dodge and Coie (1990) found that dominance was associated with social preference to a greater degree amongst younger than older boys. Vaughn and Waters (1981) observed preschool children's behavior. They reported that initiating hazing (teasing, unprovoked threats used to 'get a rise' out of the recipient), wining displacement, and game hostility were positively correlated with social status (measured by visual regard). Although they are possibly not liked by everybody, bullies are often observed by peers. This may lead to an imitation of negative behaviors.

As people with a high social status are more often imitated, bullying behaviors may be reproduced and initially non-involved children may also begin to harass their peers. This process may be described as social contagion which emerges as a function of reinforcement, modeling, and emotional contagion (Craig & Pepler, 1995). Moreover, bullying behavior may be displayed to achieve high status (Baldry, 1998). Middle- and high-school students reported that bullies have higher status than victims (Oliver, Hoover & Hazler, 1994).

In conclusion, victimized children have a low social status, while at least some of the bullies have an average or even high social status. Bullies possibly become popular because they are powerful, and those people are interesting and attractive. Moreover, high status bullies get support for their behavior, they easily become group leaders, and may continue to bully others. In contrast to highly aggressive and disruptive children who are rejected by their peers, bullies mainly display proactive aggression. Thus, 'successful' bullies are probably not aggressive and nasty toward everybody, but only toward powerless victims.

6   Individual and Social Risk - Integration of Levels of Complexity

As described above, factors on the individual, dyadic and group level may contribute to victimization. Individual behavioral characteristics may predispose children to being victimized. In addition, victimized children have few friends and have a low social status in their group. However, these factors are not independent of each other. These levels of social complexity have dialectical relations. Thus, it is important to be aware of the mutual influences between them (Hinde, 1987). This integration of the various factors on the individual, dyadic, and group levels is a necessary step to gain insights into the complexity of the bullying phenomenon.

 Hodges et al. (1997) suggested that individual risk (internalizing and externalizing problems) and social risk (having few friends and rejection) are interacting determinants of victimization. To confirm their hypothesis, they conducted a study among 229 third- to fifth-graders. Behavioral characteristics were assessed using a peer nomination inventory, whereby social preference was assessed using a sociometric measure (only same-sex choices). The following behavioral scales were assessed: victimization, aggression, argumentativeness, dishonesty, pushy peer entry style, disruptiveness, immaturity, withdrawal and hovering peer entry style, prosocial behavior, and physical strength. Using a factor analytic approach, seven of these scales were reduced to two factors. The factor 'externalizing problems' loaded positively on aggression, argumentativeness, dishonesty, pushy peer entry style, disruptiveness, but negatively on prosocial behavior. The second factor was labeled 'internalizing problems'. Withdrawal, anxiety/depression, and hovering peer entry style loaded positively on this factor. 'Physical strength' was taken as a single scale. The victimization scale served as the dependent variable. Sociometric measures were used to establish the number of children's friends (reciprocal nominations of liking), qualities of friends (behavioral characteristics of friends) as well as rejection (percentage of least preferred nominations). Numerous multiple regressions were performed to assess whether number and qualities of friends and rejection moderated the relations between the behavioral risk variables (internalizing, externalizing problems and physical strength) and victimization. These analyses clearly indicated that social risk factors indeed moderated the relation between behavioral risk and victimization. Children who displayed externalizing or internalizing behavior

problems were less often victimized when they had many friends. Further, the behavioral qualities of these friends played an important role. Friends who were victimized themselves or were physically weak could not protect their friends effectively. In contrast, friends who also displayed externalizing behavior problems were protective against victimization. In addition to lack of friends, peer rejection also turned out to be a social risk variable. The association between behavioral risk and victimization was greater for rejected children. The authors concluded that individual-level vulnerabilities often depend on social context factors for expression, i.e. social context factors which lie in the peer group may serve to actualize vulnerabilities or to buffer against it (Hodges et al., 1997).

This study just described had its methodological limitations because it involved only concurrent measures and relied mainly on peer informants. Thus, the authors conducted a similar study with a longitudinal design and multiple sources of information (Hodges et al., 1999). This time, only the protective function of friendship against victimization was investigated. 393 (out of 533) forth- and fifth-graders participated in both parts of the study. The time span between the two assessment phases was one year. Children completed a peer-report victimization scale, friendship nominations, and ratings about friendship quality (protection, companionship, security and conflict). Teachers rated children's behavior (internalizing problems vs. externalizing problems). The analysis revealed that the presence of a mutual friend and having a protective friend were negatively related to future victimization. Further, internalizing and externalizing problem behaviors predicted victimization at time 2. However, having a best friend did not decrease the risk of future victimization when behavioral problems were taken into account. However, children with internalizing behavior problems who had a protective friend had a reduced risk of victimization. In sum, the cycle of peer abuse seems to escalate for children at risk who do not have a best friend (Hodges et al., 1999).

Likewise, Pellegrini et al. (1999) found that having friends and being liked by one's peers were protective factors against victimization. However, friends who were themselves victimized could not serve this protective role, whereas having bullies or non-involved children as friends might protect vulnerable children from being victimized. Not only friendships or social status might have protective functions with respect to victimization, but also high self-regard. Egan and Perry (1998) reported that

self-perceived peer competence moderated the relation between behavioral risk and victimization (Egan & Perry, 1998).

The studies cited above involved mainly school-age children or even adolescents. Nevertheless, Schwartz, McFadyen, Dodge, Pettit and Bates (1999) conducted a study which involved kindergarten children. Teachers rated kindergarten or first-grade children on several behavior measures (internalizing, externalizing, hyperactivity-impulsiveness, immaturity-dependency). These behavior ratings predicted victimization three years later. However, the relation between early problem behavior and later victimization was mediated by peer rejection and moderated by children's dyadic friendships.

In conclusion, friendships as well as social status may moderate or mediate the effect of individual behavioral vulnerabilities. On the one hand, children who are predisposed to being victimized because they display submissive or disruptive behavior patterns, may not be victimized if they have protective friends or a high social status in their group. On the other hand, the combination of being behaviorally vulnerable (individual risk) and having no friends or a low social status (social risk) may even multiply the risk of victimization.

7   Research Questions

7.1   *The Nature of Bullying in Kindergarten*

Little is known about the phenomenon of bullying in kindergarten. Thus, the first step in this study will be to describe the nature of bullying. Although the main focus of this dissertation concerns issues related to the peer group context and the social behavior of children involved in bullying, some research questions concerning the nature of bullying will also be formulated. The questions regarding the occurrence of bullying, bullying forms, age and gender differences will provide the background for the subsequent analyses.

As there is no standard assessment procedure for kindergarten age, a multi-method approach seems to be appropriate. Thus, not only questionnaires and interviews will be carried out, but also observational methods. Naturalistic observations are rarely used in bullying research, although observations yielded additional insights into the nature of bullying (e.g. Craig & Pepler, 1995).

In a first step, children who are repeatedly involved in occurrences of bullying will be categorized as bullies, bully-victims, or victims. Bullying status serves as the major differentiation criterion in the subsequent analyses.

A) How frequent is bullying behavior?

Bullying is commonly conceived as a low-frequency behavior. However, this seems partly to be a methodological artifact. Questionnaires and interview techniques presumably assess only the most serious events. In contrast, observational studies revealed that bullying occurred very frequently on the playground and most occurrences were of short duration (Craig & Pepler, 1995). Behavior that occurs very frequently will have a big impact on the everyday life of all kindergarten children in the group, and not only on the children directly involved in the occurrence. Thus, several assessment methods will be compared to answer the question *how frequent bullying behavior is*.

B) Are there gender and age differences regarding involvement in bullying?

   Bullying is, like other aggressive behaviors, strongly related to gender. Thus, it will be of interest whether gender differences with respect to involvement in bullying can be established. Several studies revealed that boys participated more often in bullying than girls (Olweus, 1991; Rigby, 1996; Whitney & Smith, 1994). In contrast, results regarding victimized children's gender are not unequivocal. In some studies, boys were found to be somewhat more victimized than girls (Olweus, 1991; Rigby, 1996), whereas in other studies no gender differences with respect to victimization emerged (Whitney & Smith, 1994).

   Hypothesis 1:   Boys bully more frequently than girls.

   In addition to gender differences, age differences are also of interest. As kindergarten in Switzerland is age-mixed, the child's age is probably a significant factor in bullying behavior. Thus, the next question considers age differences regarding involvement in bullying. Bullying involves an asymmetric power relationship between bully and victim. In age-mixed kindergartens, age seems to be a significant aspect in constituting power asymmetries. On the one hand, older children are presumably bigger and stronger. On the other hand, children who attend kindergarten for the second year are more familiar with the kindergarten setting and may thus have some kind of 'home advantage'. Although almost no research results exist concerning this age group, we can assume that also in kindergarten age trends follow opportunities to dominate one another (Whitney & Smith, 1993).

   Hypothesis 2:   Older children bully more often than younger children, whereas younger are more often victimized.

C) Are there gender and age differences regarding bullying and victimization forms?

   The next issues to be addressed are age and gender differences with respect to different forms of bullying and victimization. Bullying includes not only physical aggression and verbal aggression, but also indirect forms of aggression. Moreover, in kindergarten, object-related forms of bullying seem to be relevant (Järman & Slovak, 1986). Indirect bullying includes relational aggression forms which harm others by damaging social relationships (Björkqvist, Österman et al., 1992; Crick & Grotpeter,

1995). For example, children are actively excluded from play activities. Although Björkqist, Lagerspetz et al., 1992) argued that indirect aggressive strategies were not yet fully developed among the 8-year-old children, other studies indicated that indirect forms of victimization already occur among preschool children (Crick, Casas et al., 1999). Thus, we may expect that not only direct but also indirect forms of bullying can be observed in kindergarten. Indirect bullying is particularly relevant with respect to children's peer relations.

Several studies indicated that boys and girls differ in their use of forms of bullying and aggression. Boys more often use physical aggression, whereas girls more often use indirect or relational forms (Björkqivist, Lagerspetz et al., 1992; Olweus, 1991; Crick, Werner et al., 1999). Likewise, boys are more often physically victimized than girls (Crick & Grotpeter, 1996; Rigby, 1996; Olweus, 1991). However, some studies indicated that girls are more often victimized by indirect forms (Olweus, 1991, Rigby, 1996), whereas others studies could not establish gender differences with respect to different forms of victimization (Crick & Bigbee, 1998). Little is known about age differences in the various forms of bullying and victimization, thus, no clear hypothesis is formulated.

> *Hypothesis 3:* *Boys display physical bullying more often than girls, whereas girls prefer indirect forms of bullying.*

> *Hypothesis 4:* *Boys are more often exposed to physical victimization than girls.*

D) Are there bullying status differences regarding forms of bullying and victimization?

Bullies and bully-victims victimize other children. However, little is known about their bullying behavior. Indirect forms of bullying may only be effective, when a child who is well embedded in the peer group displays them. Only a child who is a preferred playmate, can exclude others from play activities. Thus, indirect forms of bullying may be more relevant for the bully's behavior. On the other hand, bully-victims are not only aggressive but are also victimized. Thus, the question will be addressed *whether there are differences between bully-victims and victims regarding victimization forms*.

Hypothesis 5:   *Bullies display indirect bullying more often than bully-victims, whereas bully-victims bully more often than bullies by physical means.*

E) Who is victimized by whom?

Bullying behavior is not only limited to children categorized as bullies, bully-victims, or victims. In contrast, non-involved children may imitate a bully's behavior and begin to attack a victim (Olweus, 1978). On the other hand, non-involved children may be victimized. However, when they are able to defend themselves effectively or receive support or help from other children, the attacks probably stop. In sum, bullying affects the whole kindergarten group, not only bullies and bully-victims. Thus, it will be of interest to assess who is victimized by whom.

Bullies seem to use aggression in an effective way (Pellegrini et al., 1999). Presumably, they bully only weaker children where they can be sure of their success. In contrast, bully-victims are described as being disruptive and inattentive (Schwartz, 1995). These behavioral descriptions may indicate that bully-victims behave negatively toward many other children or even toward all children in the kindergarten group. As a consequence they are disliked by most of their peers.

Hypothesis 6:   *Bully-victims attack a higher number of children than bullies.*

Hypothesis 7:   *Bully-victims more often attack non-involved children, whereas bullies mostly target victims or bully-victims.*

The general pattern of bullying shows a powerful bullying child attacking a weaker child. This power differential may reside in age differences or even in the bully's and the victim's gender. Several studies revealed that children are mainly victimized by older or same-age children (Olweus, 1991; Rigby, 1996; Whitney & Smith, 1993; Boulton & Underwood, 1992).

Although most play activities in childhood are gender segregated (Maccoby & Jacklin, 1987), bullying does not follow this pattern. Girls are often bullied by boys and girls, whereas boys are most often bullied only by other boys (Olweus, 1991; Boulton & Underwood, 1992, Rigby, 1996).

Hypothesis 8:   *Younger children are mainly victimized by older children.*

Hypothesis 9:   Boys are mainly victimized by boys, whereas girls are victimized by boys and girls.

7.2   Social Behavior of Children Involved in Bullying

Bullies, bully-victims, and victims do not only play different parts in bullying, but they also display different social behavior patterns. The following questions and hypotheses will be addressed by means of questionnaire data. Furthermore, results of naturalistic observations are used to illustrate the findings. Age and gender differences regarding social behavior may be expected. As these differences are not the major focus in this study, no hypotheses will be formulated.

F) Are there bullying status differences regarding aggressive behavior?

  Bullies as well as bully-victims are aggressive. As Pellegrini (1998) stated, not much is known about the aggressive behavior of bully-victims. He proposed that bullies use aggression instrumentally against weaker peers, whereas bully-victims use aggression reactively. Although bullies and bully-victims both behave aggressively, their behavior has a different impact on their social adjustment. Bully-victims are rejected (Perry et al., 1988), whereas bullies (at least some of them) are quite popular (Whitney & Smith, 1993). Probably, bullies and bully-victim display different forms of aggression. Physical aggression is a major determinant for peer rejection (Asher & Coie, 1990). It may be that bully-victims more often use physical aggression forms.

Hypothesis 10:   Bullies and bully-victims are more aggressive than non-involved children and victims.

Hypothesis 11:   Bully-victims display overt aggression more often than bullies.

G) Are there bullying status differences regarding submissiveness and leadership?

  Submissiveness was found to be a hallmark of victimization (Crick & Bigbee, 1998). Several studies revealed that victims have problems to defend themselves (Perry et al., 1988; Schwartz, 1995). However, bully-victims do no seem to display

submissive behavior. Presumably, they are more likely to fight back as a reaction to being attacked (Schwartz, 1995).

Hypothesis 12:   Victims have lower ability to set limits than non-involved children.

Not only are victims submissive in aggressive encounters, they are also nonassertive with respect to leader behavior, e.g. persuasion attempts (Schwartz, et al., 1993). In contrast, bullies are very assertive. Cairns et al. (1988) established that some bullies were leaders in their respective social cluster. This pattern may apply to bullies. Hawley (1999) proposed that in kindergarten age, aggressive and prosocial means of achieving dominance may be still interrelated. Thus, I will investigate *whether there are bullying status differences with regard to leadership.*

H) Are there bullying status differences regarding withdrawal?

Victims are described as being withdrawn (Perry et al., 1988; Schwartz, 1995). However, it is not clear whether they are introverted, i.e. whether they like to play alone, or whether they are excluded by their peers. On the one hand, children are presumably attacked when they are on their own, because they represent easy targets. On the other hand, victimized children are supposedly also isolated from play activities. As they are not liked, they are not chosen as playmates. Thus, victimized children may be described as being introverted and isolated. However, this behavioral characteristic of being withdrawn seems only to apply to victims and not to bully-victims. Aggressive victims, and aggressive children more generally, are found to be socially active (Pepler et al., 1995; Pellegrini et al., 1999; Patterson et al., 1967).

Hypothesis 13:   Victims display more withdrawing behavior than non-involved children (introversion as well as isolation).

I) Are there bullying status differences regarding social skills?

The next question addresses differences between bullies, bully-victims, and victims regarding their social skills. The term 'social skills' subsumes several social behavior categories. I differentiate between sociability, prosocial behavior, and cooperativeness. As victims and bully-victims are rejected by their peers, it is assumed that they lack social skills. However, only few studies addressed this issue directly. Egan and Perry (1998) found that social skills (being friendly and sharing) were negatively related to

victimization. Moreover, peer rejection was negatively related to sociability (Newcomb et al., 1993). In contrast, aggressive victimization was related to social activity (Pellegrini et al., 1999). More generally, observational studies indicated that aggressiveness was related to higher levels of sociability (Pepler et al., 1998). There is a current debate as to whether bullies lack social skills (see Sutton, Smith & Swettenham, 1999a, 1999b; Crick & Dodge, 1999). However, these authors use the term 'social skills' mainly with respect to social cognition, such as perspective-taking ability. Therefore, no clear hypothesis is formulated. I will investigate *whether there are bullying status differences with respect to sociability, cooperativeness, and prosocial behavior*.

7.3   *Peer Relationships of Children Involved in Bullying*

Peer relationships encompass various constructs. On the one hand, having a best friend, having playmates and friends reflect reciprocal peer relationships which are based on mutual definitions of these relationships. On the other hand, in a kindergarten group, children form subgroups, i.e. social clusters. Peer relationships will be assessed by means of peer nominations and social cluster mapping technique. Thus, several aspects of peer relationships will be taken into account.

J) Are there bullying status differences regarding peer relationships?

Reciprocal peer relationships are important for bullying behavior in two respects. First, friends might serve as protective factors against bullying (Lewis & Feiring, 1989, Hodges et al., 1999). Second, aggressive children tend to affiliate (Cairns et al., 1988; Pellegrini et al., 1999). This affiliation of behaviorally similar children may lead to an imitation of aggressive behavior and hence to an increase of bullying.

Victims as well as bully-victims were found to have few friends (Olweus, 1978; Rigby, 1996; Boulton & Underwood, 1992; Ray et al., 1997). Friends might protect children who are predisposed to being victimized. As bullying involves some kind of power asymmetry, being together with other children might shift this asymmetry.

However, some children were found to be victimized by their friends (Grotpeter et al., 1998). Thus, I will investigate *whether some children are also victimized by their friends*.

Hypothesis 14:   Victims and bully-victims have fewer reciprocal relationships than non-involved children.

Cairns et al. (1988) established that not all aggressive children lack friends. On the contrary, some of them were even leaders of their respective social clusters. Studies indicated that bullies, particularly boys, have large friendship networks (Huttunen & Salmivalli, 1996; Boulton, 1999). Moreover, aggressive children tend to affiliate with each other (Pellegrini et al., 1999; Haselager et al., 1995). As bullies and bully-victims are aggressive , they might cluster together.

Hypothesis 15:   Bullies have as many reciprocal relationships as non-involved children.

Hypothesis 16:   Bullies and bully-victims affiliate with each other.

7.4   Social Status of Children Involved in Bullying

Social status reflects the child's standing or position in the group. Social status is commonly assessed using sociometric nominations: popularity (positive nominations) and rejection (negative nominations). As we had ethical concerns about the use of negative nominations, only positive nominations will be used to assess the children's social status. In order to assess social status, teacher ratings, peer nominations, and social cluster mapping technique will be used.

K) Are there bullying status differences regarding social status?

Social status plays a significant role in occurrences of bullying. On the one hand, bullying may be used to enhance one's own status (Pepler et al., 1995; Pellegrini et al., 1999). On the other hand, bullying behavior is mostly directed toward children with low social status as these children will receive no support from the other children. Thus, social status is an important factor of bullying behavior which can also be defined as power abuse.

Although aggression is one of the major determinants of peer rejection, some bullying or aggressive children were found to be popular (Olweus, 1978, Cairns et al., 1988). This result may indicate that not every kind of aggressive behavior leads to low social status. Quite the contrary may be true. Bullying involves power asymmetry

between bully and victim. This power asymmetry may reside in physical strength, or in higher social status. Moreover, high social status is necessary to display exclusion or other indirect forms of bullying. Children who are not liked lack the power to exclude others from play activities (Xie et al., 1998). However, results with regard to social status of bullies are not unequivocal. Some studies revealed that bullies were often rejected (Smith & Boulton, 1994). Thus, no hypothesis regarding bullies' social status will be formulated. In contrast, several studies revealed that victimized children are not liked by their peers (Perry et al., 1988, Olweus, 1991; Smith et al., 1993).

Hypothesis 17:   *Victims and bully-victims have a lower social status than non-involved children.*

7.5   *Individual and Social Risk of Victimization*

Social behavior patterns (individual risk) as well as lack of friends or low social status (social risk) may contribute to being victimized. In order to investigate the association of individual and social risk and victimization, several of the above mentioned measures will be combined. As this study does not involve longitudinal data, only correlational methods can be applied. Thus, we are not able to establish temporal or even causal pathways.

L) Individual risk: Are there two different potential pathways to victimization?

Behavioral vulnerabilities may predispose children to being victimized. However, two different pathways to victimization were identified. On the one hand, submissiveness and withdrawing behavior were found to be major correlates of victimization (Schwartz et al., 1993). On the other hand, aggression is also strongly related to victimization (Egan & Perry, 1998). Thus, I assume that victims can be described as submissive and withdrawing, whereas bully-victims are highly aggressive children.

Hypothesis 18:   *Aggressive behavior is related to being a bully-victim.*

Hypothesis 19:   *Submissiveness and withdrawing behavior are related to being victim.*

M) Social Risk: How does lack of friends and low social status contribute to victimization?

Not only behavioral characteristics of the individual child but also social risk variables contribute to victimization. Victims as well as bully-victims were found to be rejected and to have few friends (Olweus, 1991, Smith et al., 1991; Perry et al., 1988; Rigby, 1996).

Hypothesis 20:   *Social risk variables (low social status and having no friends) are related to victimization.*

N) Does social risk moderate or mediate individual risk?

A couple of studies revealed that these social risk variables moderate the relation between individual risk (behavioral vulnerabilities) and victimization (Hodges et al., 1997; Hodges et al., 1999). For children with behavioral vulnerabilities, high social status and friendships may constitute protective factors. However, Schwartz et al. (1999) found that only friendships moderated the relation between problem behaviors and victimization. Social status was found to be a mediating factor. Early problem behaviors were related to peer rejection which in turn predicted victimization. Thus, I will investigate *whether social status has moderating or mediating functions.*

Hypothesis 21:   *Having no friends moderates the relation between individual risk factors (submissiveness, withdrawing behavior, overt aggression, verbal/indirect aggression) and being victimized. Only for children who have no friends, these behavior patterns are related to victimization.*

8   Overview of the Empirical Study

The present dissertation is part of the project *"Bullying in Kindergarten"* [11]. The goals of this project were two-fold: First, it was aimed at investigating the phenomenon of bullying and its correlates in kindergarten age (study 1). Second, a prevention program was designed, implemented and evaluated (study 2). This dissertation is based on the first study of the project.

   To get in-depth insights into the problem of bullying in kindergarten a multi-method and multi-informant approach was chosen. The first assessment phase was carried out in May and June, 1997. Data collection was conducted by members of the project team as well as by students.[12]

8.1   Participants

The study involved a sample of 18 kindergartens of the city of Berne. The sample was representative with respect to demographic and socio-economic characteristics (see Alsaker & Valkanover, 2000). 29 kindergartens were initially selected and asked by letter to participate. Teachers of 18 kindergarten groups agreed to participate in the study. Subsequently, parents were asked to provide their passive consent. Three children were not allowed to participate. This corresponds to a participation rate of 99%. Thus, the complete sample consists of 18 kindergartens involving 344 children (group size: $M = 19.1$, $SD = 2.5$).

   Participating children were between five and seven years old ($M = 6.2$, $SD = 0.6$, $min = 5.0$, $max = 7.9$). Children were assigned to two age groups: 'older' versus 'younger'. Children in the 'older' age group were older than six years and vice versa. The cut-off point of six years reflects the administrative age limit for school entry. Thus, children in the older age group will enter first grade in the subsequent fall, whereas children in the younger age group will stay another year in kindergarten.

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[11]   see also Alsaker & Valkanover, 2000; Valkanover, 2000; Jost & Zbinden, 1999; Tschumi & v. Burg, 1999; Brunner, 2000

[12]   Stefan Valkanover (project assistant and coordinator), Kathrin Hersberger and Flavia Tramanzoli (student project assistants), Andreas Brunner, Sandra v. Burg, Evelyn Jost, Renate Tschumi, and Barbara Zbinden (master's students), Germaine Ott (trainee), and the author (doctoral student).

   Table 8.1 shows the number of children in the 18 participating kindergarten groups according to age group and gender. Moreover, there was a considerable difference between the kindergartens with respect to the proportion of foreign-language children in the group, ranging from 10% to 80%.

Table 8.1: The number of children in the 18 kindergartens with respect to age group and gender

Kindergarten	Older Boys	Younger Boys	Older Girls	Younger Girls	Number of children in each kindergarten group
Kiga 01	5	2	6	6	19
Kiga 02	9	5	2	5	21
Kiga 03	6	3	3	3	15
Kiga 04	10	3	4	3	20
Kiga 05	7	2	3	6	18
Kiga 06	1	5	5	4	15
Kiga 07	7	5	6	3	21
Kiga 08	12	2	6	3	23
Kiga 09	4	6	3	3	16
Kiga 10	4	4	5	3	16
Kiga 11	6	3	5	3	17
Kiga 12	3	9	6		18
Kiga 13	8	3	5	5	21
Kiga 14	7	3	8	3	21
Kiga 15	9	2	10	1	22
Kiga 16	6	5	9	1	21
Kiga 17	3	11	1	5	20
Kiga 18	7	3	7	3	20
Total	114	76	94	60	344

8.2 General Procedure and Multi-method and Multi-informant Approach

Bullying in kindergarten is a quite unknown phenomenon because most studies mainly involved school-age children. Therefore, one of the goals of the project was to develop appropriate methods to assess bullying in kindergarten age. For this reason, we carried out a quite extensive data collection which included several assessment methods and information sources. The methods chosen range from questionnaire to interview and observations. Teachers, children, as well as parents participated in the study.

During the first assessment phase, kindergarten teachers completed a questionnaire on each child and were also interviewed. Further, children were interviewed and their parents completed a questionnaire. Subsequently, naturalistic observations were carried out in three of the kindergarten groups and teachers recorded bullying episodes in a diary. Further, motor tests were carried out and each teacher had to give an evaluation of their work situation in kindergarten. The present dissertation mainly includes results of the teacher questionnaire and interview, the child interview as well as naturalistic observations.

8.2.1   Teacher Questionnaire and Interview

Kindergarten teachers completed a questionnaire on each child, including items related to each child's social behavior, bullying, and victimization. Items that covered child behavior included questions on aggressive behavior, social skills, assertiveness, withdrawal, and peer relations. The questionnaire was mainly based on a questionnaire used in a pilot study in Norway (see Alsaker, 1993; Alsaker 1990). Most of the items were based on "Preschool and Kindergarten Teacher Rating Scales" (Ladd, 1990), some others were based on "Preschool Behavior Questionnaire" (Behar, 1977), and "Social Skills Questionnaire - Preschool Level" (Gresham & Elliott, 1990). In addition, teachers stated how often a child was victimized by his or her peers and how often he or she bullied other children. Moreover, teachers were interviewed in more detail about their experiences and attitudes toward bullying.

The questionnaire items on more general aspects of child behavior such as language problems and attention deficits, on motor behavior, media consumption, as well as language problems and cultural integration were not taken into account.

8.2.2   Child Interview

Before interviewing the children, the interviewer went to the kindergarten group to familiarize the children with the interview procedure. The interview was adapted to the children's developmental level, thus, we told them a story about psychologists ('human researchers') who wanted to investigate kindergarten children. The main message of the story was that researchers were curious and wanted to ask many questions, and that the only persons who could give the right answers were the kindergarten children themselves. Afterwards, we played an interview game, during

which the children could ask each other questions and give answers. During this first visit in class, we also photographed all children.

During interviews, each child was questioned individually, following an interview schedule that included questions on peer relations, as well as bullying and victimization. Because of kindergarten children's short attention span, the interview was divided into two parts. The first part lasted between 15 and 40 minutes, depending on the elaborateness of the child's answers. The average duration was about 25 minutes. The second part lasted about 15 minutes. Children were interviewed in a separate room, or if there was no such possibility, in a quiet shielded corner of the classroom. Answers were written on the interview sheet and also tape recorded. To assess peer nominations on peer relationships and bullying, we used the photographs of each child taken during the first session.

After welcoming the child, we explained the interview procedure. First, we showed how all questions and answers would be tape recorded. The child was told that all answers would be treated confidentially. Additionally, the children were given the right to refuse answers and to interrupt the interview. To ensure that all children of the group were recognized by the interviewed child, he or she had to point at his or her own picture as well as to name the other children. At the end of the interview, children were asked not to tell others about the interview questions.

Besides questions on peer relations and bullying, the interview also consisted of question on body concept, perception of strength, coordination test items, self-esteem and self-perception and some specific questions for foreign-language children. However, these questions are beyond the scope of this dissertation.

8.2.3 Naturalistic Observations

Following the first assessment phase consisting of interviews and questionnaires, naturalistic observations taking the form of narrative descriptions were carried out. These observations were carried out in three kindergartens and involved eleven focal children.

The aims of using naturalistic observations as an additional method were (a) to evaluate the usefulness of observations as a method to investigate bullying and (b) to gain insights into everyday social interaction of children involved in bully/victim problems. Although conducting observations is a time-consuming task, it is the only possibility to receive independent judgements of external and neutral people. In

addition to the unbiased information, conducting observations has the advantage of assessing the broader context of bullying and of receiving more detailed information. In short: to observe children in their everyday life.

9 Assessment Methods

9.1 Assessment of Bullying and Victimization

Bullying and victimization were assessed by means of various instruments and information sources: child interview, teacher questionnaire and interview. These different questions were used to establish forms and frequency of bullying, as well as to categorize children as being involved or non-involved in bullying. In order to establish who is victimized by whom, I identified negative interaction dyads.

9.1.1 Child Interview

Questions on positive peer relationships such as friendships preceded the bullying questions. To perform the transition from general peer relations to the bullying problem, the following question was used: *There are not only friends in kindergarten, but also children who are often mean toward others and who are bullying others. Did you ever notice that? Could you tell me what happened?*

This open-ended question had two aims. First, we wanted to check the meaning of the term bullying ('plagen'). Second, the answers given helped us to gain insights into the phenomenology of bullying in kindergarten. Afterwards, we explained the term bullying to children by means of four drawings depicting children who are bullying other children. Each episode showed a different form of bullying. The interviewer explained them as follows:

a) *laughing at, saying mean things, putting out one's tongue* (verbal forms)
b) *taking something away, destroying, hiding* (object-related forms)
c) *pulling someone's hair, hitting, biting, kicking* (physical forms)
d) *not allowing someone to join in or not allowing someone to sit nearby* (exclusion)

To identify children who are bullying others or who are victimized, we used peer nominations. Children were asked to nominate (a) children in their group who are bullying others and (b) the victims of those bullies. Additionally, children were asked about their own experience as bullies or victims inside and outside the kindergarten. Table 9.1 and Table 9.2 show the results of bullying and victimization self-reports and

peer nominations. Due to the children's reduced notion of time, we could not define the time span, e.g. last month. However, by using the peer nomination technique, we could circumvent this problem. We assumed that the nomination of a child by various children as a bully or a victim reflects the occurrence of aggression or bullying behavior in the last few weeks.

By means of the nominations mentioned previously, bully/victim constellations were formed. Follow-up questions were asked about each bully/victim constellation mentioned (see also Section 9.1.5). If a child did not nominate anybody as bully or victim, the questions were omitted. The term 'bully' and 'victim' was not used during the interview. Instead, questions were reformulated by inserting the names of the children nominated. When the child mentioned him- or herself as being a bully or a victim, the questions were asked from his or her perspective.

The first and the second question were used to assess the forms of bullying and victimization: *What is the bully (insert name) doing to the victim (insert name)? Does he or she do things like this?* The child was requested to point at drawings of bullying and to describe it in detail: *What exactly is the bully doing?* Table 9.1 and Table 9.2 provide details of forms of bullying and victimization as assessed in child interview.

Table 9.1:   Descriptives of bullying scores assessed in child interview

Bullying scores	N	M	SD	min	max
Self-report of bullying	325	0.20	0.40	0	1
Peer nominations of bullying	344	11.5%	16.6	0	88.8%
Physical bullying	344	6.8%	12.5	0	64.7%
Verbal bullying	344	3.9%	7.0	0	50.0%
Exclusion (bullying)	344	2.0%	4.1	0	25.0%
Object-related bullying	344	2.3%	4.9	0	33.3%

Note: Self-report of bullying = 1;
Peer nominations = percentage of children interviewed in the particular kindergarten group

Table 9.2:   Descriptives of victimization scores assessed in child interview

Victimization scores	N	M	SD	min	max
Self-report of victimization	325	.72	.45	0	1
Peer nominations of victimization	344	8.4%	8.6	0	64.7%
Physical victimization	344	7.2%	7.2	0	47.1%
Verbal victimization	344	3.8%	5.2	0	36.8%
Exclusion (victimization)	344	1.8%	3.2	0	17.6%
Object-related victimization	344	2.2%	3.6	0	23.1%

Note: Self-report of victimization = 1
Peer nominations = percentage of children interviewed in the particular kindergarten group

In addition, children were asked about where the bullying had taken place and its situational context; reasons given for bullying behavior and empathy. Further, reactions to bullying behavior of various persons involved in the episode were assessed. However, these questions are beyond the scope of this dissertation.

9.1.2 Teacher Questionnaire

Teachers rated each child on four victimization and four bullying items (physical, verbal, object-related, exclusion). The 5-point rating-scale consisted of the following categories: *never, seldom*, *once or several times a month*, *once a week* or *several times a week*. The reliabilities of the victimization and bullying subscales were quite high (see Table 9.3 and Table 9.4). As we were not only interested in whether a child bullied others or was victimized, but also the form of bullying, we analyzed the various forms separately.

Table 9.3:   Descriptives and reliability of bullying scale in teacher questionnaire

Items in teacher questionnaire		N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfpla6	Child bullies other children physically (hits, kicks, pinches, bites...)	322	1.97	1.17	.72	.76
kfpla7	Child bullies other children verbally (laughs at, calls names, teases...)	322	2.13	1.17	.73	.75
kfpla8	Child excludes other children	322	2.00	0.98	.61	.81
kfpla9	Child hides or destroys other children's property	322	1.53	0.87	.60	.82
Bullying scale (teacher): α = .83		322	1.91	0.86		

Note: 5-point rating scale: never (1) to several times a week (5)
[a]Valid N (listwise) = 322

Table 9.4:   Descriptives and reliability of victimization scale in teacher questionnaire

Items in teacher questionnaire		N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfpla2	Child is victimized physically (hit, kicked, pinched, bitten...)	322	1.95	.97	.61	.70
kfpla3	Child is victimized verbally (laughed at, called names, teased....)	322	1.96	.95	.69	.66
kfpla4	Child is excluded by other children.	322	1.80	.98	.52	.76
kfpla5	Child property is hidden or destroyed	322	1.46	.64	.54	.76
Victimization scale (teacher): α = .78		322	1.79	.69		

Note: 5-point rating scale: never (1) to several times a week (5)
[a]Valid N (listwise) = 322

The intercorrelations between teacher's and peers' bullying and victimization scores are shown in Table 9.5. Teacher's bullying and victimization scores represent the mean score of the bullying and victimization scales presented above, whereas peers' bullying and victimization scores correspond to the percentage of the peer nominations received.

Table 9.5:   Intercorrelations between bullying and victimization scores from various perspectives

Bullying and victimization - various perspectives	1.	2.	3.	4.
1. Bullying (peers)	--	.58	.18	.23
2. Bullying (teacher)		--	.02	.42
3. Victimization (peers)			--	.09
4. Victimization (teacher)				--

Note: Shaded cells show significant associations (α-level = .05)

9.1.3   Teacher Interview

In addition to the detailed questions on each child, teachers were interviewed using a half-structured interview manual (see Jost & Zbinden, 1999).

   Similar to the child interview, teachers were asked to nominate children who were victimized and by whom. The question was used to form bully/victim constellations (see Section 9.1.5). Follow-up questions on frequency and forms of bullying were asked about each bully/victim constellation mentioned. The term bully or victim was not used during the interview, instead questions were reformulated by inserting the names of the nominated children.

Table 9.6:   Frequency and percentages of bully and victim nominations in teacher interview

Nominations in teacher questionnaire	Frequency	Percentage
Not nominated	199	57.3%
Nominated as bully only	64	18.4%
Nominated as victim only	42	12.1%
Nominated as bully and as victim	42	12.1%

9.1.4   Bullying Status Categorization

Some of the above mentioned measures were used to categorize children as bullies, bully-victims, victims, and non-involved. Whereas for school age some standards for categorizing children have evolved, only few studies exist for kindergarten age. Moreover, no such standards or even assessment methods are available for kindergarten children.

In bullying research, the use of self-reports as a basis for categorization is the most common procedure. In our study, 77% of the 325 children interviewed nominated themselves as being involved in bullying: 57% as victims; 5% as bullies; and 15% as bullies and victims. This high percentage of self-reported victims reflects an attributional bias. Most of the children perceive themselves as being victims, whereas much fewer children admit bullying others. Therefore, self-reports do not seem to be appropriate for this specific age group. As a consequence, we decided to use teacher ratings and peer-nominations for categorization (see Alsaker & Valkanover, 2000)

9.1.4.1 Teacher's View

As described above, teachers rated each child on four bullying and victimization items (physical, verbal, object-related and exclusion). For a child to be categorized as being involved in bullying, it was sufficient to meet the criteria shown below on one of the four possible items.

Table 9.7:   Definitions of bullying status according to teacher's view

Bullying status	Definition
Victim	Victimized once or several times a week.
Bully	Bullied others once or several times a week.
Bully-victim	Victimized once or several times a week <u>and</u> bullied others once or several times a week.
Non-involved	Never or seldom victimized <u>and</u> never or seldom bullied others.
Mixed	All other children

Two of the kindergarten teachers had a specific response tendency, they rated almost everybody as being frequently involved in bullying or victimization. For these kindergartens we adapted the procedure in such a way that only the most extreme children of the group were categorized as described above. 16 children had no teacher data and are treated as missing.

9.1.4.2 Peers' View

Peers nominated bullies and victims during the interview. Percentages of nominations received were standardized; one standard deviation was used as the cut-off point. In some kindergarten groups children received significantly more nominations than in others. For this reason, nominations were also standardized within groups. Children

were only categorized as involved when they met both criteria, i.e. one standard deviation above the sample mean and one standard deviation above the group mean.

Table 9.8:   Definitions of bullying status according to peers' view

Bullying status	Definition
Victim	Nominated as victim more often than one standard deviation above the mean.
Bully	Nominated as bully more often than one standard deviation above the mean.
Bully-victim	Nominated as victim and as bully more often than one standard deviation above the mean.
Non-involved	Nominated less than average as bully and nominated less than average as victim.
Mixed	All other children

9.1.4.3   Final Categorization

For the final categorization, teacher's and peers' views were combined. On a highly differentiated level, there was a relatively high amount of discrepancy between peers' and teacher's views. However, some patterns emerged. Due to our relatively strong criteria, a high percentage of children were categorized as 'mixed'. Children who were classified as victims, bullies or bully-victims from one point of view and as 'mixed' from the other, were categorized as definitely involved.

As we judged children's answers to be less valid than those of the teachers (see Alsaker & Valkanover, 2000), teacher ratings were weighed more than peer nominations. In the case of 'mild' non-agreement (i.e. non-involved and mixed) we categorized the child according to teacher's view. Still, 18 children were categorized as involved according to their peers' view and were non-involved according to teacher's view. These children are non-categorizable and will be treated as missing. Another 16 children could not be categorized because of missing data.

Table 9.9:   Final categorization: Comparison between peers' and teacher's view

| | Teacher's view | | | | | |
Peers' view	Non-involved	Mixed	Victim	Bully-victim	Bully	Missing
Non-involved	non-involved (n = 107)	mixed (n = 29)	victim (n = 10)	bully-victim (n = 2)	bully (n = 9)	missing (n = 12)
Mixed	non-involved (n = 53)	mixed (n = 28)	victim (n = 6)	bully-victim (n = 8)	bully (n = 16)	missing (n = 3)
Victim	non-categorized (n = 6)	victim (n = 3)	victim (n = 2)	bully-victim (n = 2)	bully-victim (n = 0)	missing (n = 0)
Bully-victim	non-categorized (n = 7)	bully-victim (n = 2)	bully-victim (n = 2)	bully-victim (n = 3)	bully-victim (n = 5)	missing (n = 1)
Bully	non-categorized (n = 5)	bully (n = 4)	bully-victim (n = 2)	bully-victim (n = 9)	bully (n = 8)	missing (n = 0)

Note: Shaded cells show the bullying status used for the subsequent analyses (N = 344).

Following the categorization procedure presented above, 310 children were finally categorized either as victims, bullies, bully-victims, mixed or non-involved. 160 children (47%) were not involved in bullying, 21 (6%) children were classified as victims, 35 (10%) as bully-victims and 37 (11%) children as bullies. 57 children (17%) were neither involved nor non-involved in bullying and victimization and are labeled 'mixed'. The remaining 34 children (10%) are treated as missing.

9.1.5 Identification of Dyads with Negative Interaction Patterns

As described above, children and teachers nominated bully/victim constellations. Therefore, we were not only able to categorize children as bullies, victims, or bully-victims, but also to establish whom these children bully or by whom they are victimized. By means of the bully/victim constellations nominated, dyads with negative interaction patterns were identified.

Apparently, the nomination of such (supposed) bully/victim constellations does not only assess bullying in the strong sense but also conflicts, aggression, and other negative behavior patterns. Not every child who is a target of negative interactions is a victim (or a bully-victim), and not every child who is a perpetrator of negative interactions is a bully (or bully-victim). Therefore, it has to be differentiated between bullying and victimization (which we assumed to assess through the categorization of individual children) and dyads with negative interaction patterns. Therefore, I refer to children who were nominated in the negative interaction dyads as *perpetrators* and

targets. Surely, perpetrators and targets might be children who were categorized as bullies, bully-victims, or victims, but that is not necessarily the case.

As teachers and children nominated bully/victim constellations, two different view points had to be considered. In order to identify dyads with negative interaction patterns I used a procedure similar to the categorization of children as bullies, victims or bully-victims. To parallel the categorization procedure, I weighed the teacher's view more heavily than the children's view. Bully/victim constellations nominated by children were only taken into account when at least two children mentioned the same dyad ($N_D = 193$). In contrast, negative interaction dyads nominated by teachers were always included in the analysis ($N_D = 196$). Most of these dyads were nominated only by teachers or only by children. Only 9.6% of the total of 355 dyads were nominated by at least two children <u>and</u> the teacher. In addition to the 355 dyads consisting of two individuals, 56 dyads involved 'everybody' as perpetrator (20 dyads) or target (36 dyads).

There was a huge variability in the number of dyads identified in the various kindergarten groups ($M = 19.2$, $SD = 15.2$). This high variability in the number of dyads in the various kindergartens corresponded to the varying number of children categorized as being involved in bullying.

The 355 dyads involved 206 children who were nominated as perpetrators or targets[13]. 71 (34%) were only nominated as targets, 49 (24%) only as perpetrators and 86 (42%) as perpetrators and targets. In Table 9.10 the agreement between dyad nominations and bullying status can be seen.

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[13] As a child may be mentioned in more than one dyad, the number of dyads is higher than the number of targets and perpetrators.

Table 9.10:   Nominations in dyads with negative interaction patterns by bullying status

Bullying status	Not nominated	Nominated as perpetrator	Nominated as perpetrator and target	Nominated as target	N
Non-involved	93 (58.1%)	19 (11.9%)	17 (10.6%)	31 (19.4%)	160
Mixed	22 (38.6%)	8 (14.0%)	13 (22.8%)	14 (24.6%)	57
Victim	2 (9.5%)	0 (0.0%)	4 (19.0%)	15 (71.4%)	21
Bully-victim	1 (2.9%)	7 (20.0%)	23 (65.7%)	4 (11.4%)	35
Bully	3 (8.1%)	13 (35.1%)	19 (51.4%)	2 (5.4%)	37
'Non-categorized'	2 (11.1%)	2 (11.1%)	9 (50.0%)	5 (27.8%)	18
'Missing'	15 (93.8%)	0 (0.0%)	1 (6.3%)	0 (0.0%)	16
Total	138 (40.1%)	59 (14.2%)	86 (25.0%)	71 (20.6%)	344

Although we found that the overlap between nominations in dyads and bullying status categorization was incomplete, most of the definitely categorized children were also nominated in a dyad. 71.4% of the victims were nominated as targets only, 65.7% of the bully-victims were nominated as perpetrators and targets, 35.1% of the bullies were nominated as perpetrators only and 51.4% as perpetrators and targets. Further, 58.1% of the non-involved children were not nominated in any negative interaction dyad.

As I was interested in the question *who is victimized by whom* or *who bullies whom*, only dyads involving at least one bully, bully-victim, or victim were analyzed ($N_D = 284$). Bullies might only have the role of a perpetrator, and victims might only be targets, whereas bully-victims might be targets and perpetrators.

9.2   *Assessment of Social Behavior*

Child behavior was assessed by means of teacher questionnaires on each child. In this study, 32 items on social behavior toward peers were used. Teachers rated each child on a 5-point rating-scale, ranging from *not true at all (1)* to *absolutely true (5).* Principal components analyses were used to assess whether the items corresponded to the previously assigned social behavior subscales.

9.2.1 Aggressive Behavior: Overt Aggression and Verbal/indirect aggression

Principal components analysis on 6 aggression items yielded only one factor. All these items seem to be interrelated, even if they tapped different aspects of aggressiveness such as direct or verbal aggression. Scale-reliability was very high with *Cronbach's* $\alpha = .93$. However, there were substantial semantic differences between various items. Some tapped direct, especially physical aggression, others tapped indirect and verbal aggression. Therefore, two forms of aggression were differentiated. The overt aggression subscale consisted of the following items: *Kicks, bites or hits other children; Aggressive toward peers;* and *Destroys own and others' belongings* (inter-item correlations $> .69$; *Cronbach's* $\alpha = .90$). The verbal/indirect aggression subscale consisted of three items: *Calls others names and shouts at other children; Blames others;* and *Tells lies* (inter-item correlations $> .65$; *Cronbach's* $\alpha = .86$).[14]

Table 9.11:   Descriptives and reliability of overt aggression subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfall13 Kicks, bites or hits other children	340	1.96	1.08	.83	.82
kfall38 Is aggressive toward peers	340	1.94	1.06	.80	.85
kfall43 Destroys own and others' belongings	339	1.72	0.99	.75	.88
Overt aggression subscale: $\alpha = .90$	340	1.88	0.95		

Notes: 5-point rating scale: not true at all (1) to absolutely true (5)
kfpla1: never (1) to several times a week (5)
[a]Valid N (listwise) = 338

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[14]   Due to the high scale reliabilities, scale means were computed despite missing values (rule: more than half of the items had to be valid in order to compute a valid scale mean). This rule applied to all subsequent social behavior subscales.

Table 9.12:   Descriptives and reliability of verbal/indirect aggression subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfall39 Blames others	336	1.94	1.09	.75	.78
kfall58 Calls others names and shouts at other children	338	2.44	1.15	.75	.78
kfall64 Tells lies	339	1.89	0.97	.70	.83
Verbal/indirect aggression subscale: α = .86	339	2.09	0.95		

Note: 5-point rating scale: not true at all (1) to absolutely true (5)
[a]Valid N (listwise) = 335

9.2.2 Social Skills: Cooperativeness, Sociability, Prosocial Behavior

Principal components analysis on 14 items on social skills yielded three distinct factors. This result corresponded to the three factors assumed: prosocial behavior, cooperativeness and sociability. The item *Willingly waits his or her turn* had no exact correspondence to the original items, therefore it was assigned to the factor cooperativeness. The item *Sociable child* seemed to belong to the cooperativeness subscale instead of the sociability subscale. This non-agreement was due to translation problems. The correct translation of *Sociable child* ('umgängliches Kind') carries the connotation of being 'easily manageable' in German and can thus not be considered to have the same meaning as being 'outgoing'. Therefore, this item was included in the cooperativeness subscale.

The final cooperativeness subscale consisted of the following six items: *Listens to what classmates say; Accepts peers' ideas for group activities; Compromises in conflicts with peers; Cooperative with peers; Willingly waits his or her turn;* and *Sociable child.* All inter-item correlations were higher than .46; scale reliability was high: *Cronbach's α* = .88.

The subscale prosocial behavior subscale consisted of the following five items: *Shares willingly with peers; Frequently helps other children; Friendly toward other children; Shows empathy toward peers;* and *Comforts peers when needed* (inter-item correlations > .47; *Cronbach's α* = .88).

The sociability subscale consisted of the following three items: *Comfortable in groups of peers; Converses with peers easily;* and *Outgoing in peer group situations* (inter-item correlations > .63; *Cronbach's α* = .85).

Table 9.13:   Descriptives and reliability of cooperativeness subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfall12 Willingly waits his or her turn	340	3.65	1.18	.64	.87
kfall14 Sociable child	340	3.99	0.98	.65	.86
kfall29 Listens to what classmates say	340	3.72	0.97	.73	.85
kfall30 Accepts peers' ideas for group activities	338	3.68	0.92	.71	.85
kfall42 Compromises in conflicts with peers	339	3.46	1.00	.78	.84
kfall48 Cooperative with peers	339	3.60	0.98	.63	.87
Cooperativeness subscale: α = .88	340	3.68	0.80		

Note: 5-point rating scale: not true at all (1) to absolutely true (5)
[a]Valid N (listwise) = 335

Table 9.14:   Descriptives and reliability of prosocial behavior subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfall3 Shares willingly with peers	339	3.69	1.02	.69	.87
kfall8 Frequently helps other children	340	3.49	1.08	.76	.85
kfall17 Friendly toward other children	340	4.04	0.85	.64	.88
kfall26 Shows empathy toward peers	340	3.84	0.95	.79	.84
kfall53 Comforts peers when needed	340	3.51	1.07	.73	.86
Prosocial behavior subscale: α = .88	341	3.71	0.82		

Note: 5-point rating scale: not true at all (1) to absolutely true (5)
[a]Valid N (listwise) = 336

Table 9.15:   Descriptives and reliability of sociability subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfall1 Comfortable in groups of peers	339	4.09	0.87	.67	.82
kfall45 Converses with peers easily	339	3.59	1.11	.75	.75
kfall50 Outgoing in peer group situations	338	3.56	1.14	.73	.77
Sociability subscale: α = .85	339	3.74	0.91		

Note: 5-point rating scale: not true at all (1) to absolutely true (5)
[a]Valid N (listwise) = 336

9.2.3 Assertiveness: Leadership and Setting Limits

Although leadership and the ability to set limits are related constructs, they may be differentiated. Principal components analysis with two components yielded the same factors as assumed. The leadership subscale contained the following items: *Initiates conversations with peers; Organizes, suggests play activities to peers; Leader in peer group situations* (inter-item correlations > .73; *Cronbach's α* = .91).

The setting limits subscale also consisted of three items: *Refuses unreasonable requests from others; Is able to defend him- or herself; Is able to set limits to peers* (inter-item correlations > .59; *Cronbach's α* = .86).

Table 9.16:   Descriptives and reliability of leadership subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfall21 Initiates conversations with peers	340	3.46	1.20	.80	.88
kfall46 Organizes, suggests play activities to peers	339	3.36	1.28	.85	.84
kfall52 Leader in peer group situations	340	2.82	1.32	.81	.88
Leadership subscale: α = .91	339	3.21	1.17		

Note: 5-point rating scale: not true at all (1) to absolutely true (5)
[a]Valid N (listwise) = 338

Table 9.17:   Descriptives and reliability of setting limits subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfall62 Is able to set limits to peers	339	3.28	1.10	.80	.74
kfall63 Refuses unreasonable requests from others	339	3.57	1.10	.70	.83
kfall67 Is able to defend him- or herself	339	3.66	1.10	.70	.83
Setting limits subscale: α = .86	339	3.50	0.97		

Note: 5-point rating scale: not true at all (1) to absolutely true (5)
[a]Valid N (listwise) = 339

9.2.4 Withdrawal: Introversion and Isolation

The items on withdrawal tapped two different constructs. First, there were items which reflected voluntary withdrawal and introversion, i.e. the child liked to be on his or her own. Second, a child was isolated and lonely. A principal components analysis with two factors yielded exactly this differentiation between active and passive withdrawal.

The introversion subscale consisted of the following items: *Prefers to play on his or her own; Likes to be on his or her own; Withdraws from other children;* and *Watches rather than joins peer activities*. The item *Solitary child* loaded high on both factors. Due to the meaning of the item, it will be included in the introversion subscale (inter-item correlations > .50; *Cronbach's α = .88*).

The first of the originally five victimization items *The child has nobody in the group to play with* did not tap victimization, but only reflected the frequency of loneliness. Whether the child was alone due to direct exclusion by others was not apparent. Thus, it will be analyzed as an item related to isolation and not as a victimization item. This item together with *Appears lonely* built the isolation subscale (inter-item correlation = .59; *Cronbach's α = .74*).

Table 9.18:   Descriptives and reliability of introversion subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfall4 Prefers to play alone	338	2.31	0.97	.73	.84
kfall24 Likes to be alone	338	2.38	0.94	.72	.85
kfall27 Withdraws from other children	339	2.26	0.93	.70	.85
kfall37 Watches rather than joins peer activities	338	2.34	1.13	.73	.84
kfall45 Solitary child	336	2.37	1.15	.67	.86
Introversion subscale: α = .87	340	2.33	0.84		

Note: 5-point rating scale: not true at all (1) to absolutely true (5)
[a]Valid N (listwise) = 336

Table 9.19:   Descriptives and reliability of isolation subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations
kfall79 Appears lonely	338	2.08	1.25	.59
kfpla1 Child has nobody in the group to play with	322	2.07	1.15	.59
Isolation subscale: α = .74	321	2.07	1.07	

Note: 5-point rating scale: kfall79: not true at all (1) to absolutely true (5)
kfpla1: never (1) to several times a week (5)
[a]Valid N (listwise) = 321

The intercorrelations between the nine social behavior subscales are shown in Table 9.20.

Table 9.20:   Intercorrelations between social behavior subscales

Social behavior subscales	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Overt aggression	--	.84	-.71	-.50	-.19	.00	.04	.02	.29
2. Verbal/indirect aggression		--	-.66	-.43	-.11	.10	.12	-.06	.21
3. Cooperativeness			--	.70	.44	.19	.20	-.18	-.39
4. Prosocial Behavior				--	.56	.43	.34	-.40	-.42
5. Sociability					--	.79	.62	-.77	-.71
6. Leadership						--	.73	-.78	-.65
7. Setting Limits							--	-.55	-.55
8. Introversion								--	.68
9. Isolation									--

Note: Shaded cells show significant associations (α-level = .05)

9.3   Assessment of Peer Relationships

9.3.1   Reciprocal Peer Relationships: Best Friends and Friends

To assess peer relations, we used the peer nomination technique. The child was asked to nominate peers according to the following questions:

- *Which of these children do you play with in kindergarten?*
- *Do you have a best friend in kindergarten, someone whom you most like to be with? Who is it?*

The child could choose as many peers as he or she wanted. On average, children nominated one child as best friend in kindergarten ($M = 1.23$, $SD = 0.82$) and four children as playmates ($M = 4.27$, $SD = 2.90$).

The next question was modeled after sociometric questions on popularity. This question was used to establish *mutual liking* as well as *social preference* (see Section 9.4.1). A cardboard bus was used to illustrate the question: *You are going on a bus trip. Which children from the kindergarten group do you take with you?* The child might put the pictures of the chosen children onto the cardboard bus, containing six open spaces. Thus, the child could choose six or less children. If the child had chosen more than six children, he or she was requested to reduce the number of children. Although the question resembles the standard sociometric measure, there are some differences. Children were not forced to choose a predetermined number of children.

Therefore, the child might choose only one or a few peers, which possibly more accurately reflects the real group acceptance. On average, children chose five children to take on the bus trip ($M = 4.69$, $SD = 1.16$). Further, although there is some debate as to whether children should nominate only same-sex peers (see Daniels-Beirness, 1989), children were allowed to nominate all children, not only same-sex peers. Moreover, due to ethical reasons, we did not use negative nominations.

Based on reciprocal playmate and best friend nominations as well as mutual liking, I identified reciprocal peer relationships. I differentiated between *having a best friend*, and *having friends*. First, I established whether children had a best friend in class, and then, the number of friends was determined.

86% of the children interviewed reported having a best friend in kindergarten, but only 35% had at least one reciprocal best friend in class (see Table 9.21). Next, the number of reciprocal playmates was established. Some children nominated their best friend only in the 'best friend question' and did not nominate him or her again as their playmate. To overcome this biased reporting, I included also best friends as playmates. Otherwise, some children would have a reciprocal friendship but no reciprocal playmates. 82% of the interviewed children had at least one reciprocal playmate.

As children might also nominate each other as playmates although they do not like each other, mutual liking was used as an additional criteria of 'friendship'. To assess whether a child had friends in the group, I used a combination of reciprocal best friend or playmate nomination plus mutual liking. In order to be considered as friends, children had to nominate each other as best friend or playmate, as well as to nominate each other as 'taking each other on the bus trip'. 74% of the children interviewed had at least one friend in kindergarten (see Table 9.21).

Table 9.21   Descriptives of reciprocal peer relationships

Peer relationships		N	M	SD	min	max
refr	Number of best friends	331	0.40	0.58	0	2
refr1	Having at least one best friend	331	0.35	0.48	0	1
rezus	Number of playmates	331	2.11	1.54	0	8
rezus1	Having at least one playmate	331	0.86	0.35	0	1
posbez	Number of friends	331	1.39	1.21	0	6
posbez1	Having at least one friend	331	0.74	0.44	0	1

9.3.2 Social Cluster Mapping: Cluster Membership

The next question was based on the Cairns et al.'s procedure to identify social clusters in natural settings (Cairns, Gariépy, et al., 1998). We only used the main question: "Are there people who hang around together a lot? Who are they?" and adapted it to kindergarten age: *Are there children in your kindergarten group who are always together with the same children. Are there any such small groups?* I did not use the question on isolation because kindergarten children seem to have difficulties to nominate isolated children (Alsaker, 1993). The question was used to establish the social clusters in the kindergarten group. This procedure is mainly used to identify social clusters among adolescents or school children, but it can also be used with kindergarten children. However, some children were not able to give any answer. This fact may reflect an aspect of their social-cognitive development. As it was not necessary to have answers from every child in the group, the answers obtained could be still used to generate a social cluster map (SCM) of each group.

   The 'social maps' obtained from each child were aggregated using the SCM-computer program, developed by Leung (see Cairns, Gariépy et al., 1998). This program re-arranges persons into clusters. The resulting composite social-cognitive maps yield information about (a) the identity of the group members, (b) the number of peer clusters and the social status of each cluster within the group, (c) the social status of each individual in the social network (see also Section 9.4.2). One of the advantages of this technique is that it also includes information about children who were not interviewed.

Information obtained through this social cluster mapping technique was transformed into dyadic data. Therefore, we know which children belonged to the same cluster. Children might belong to one or more clusters. For children who were identified as members of at least one group, cluster size was computed[15]. Some social clusters consisted of as many as eight children. These categories were reduced, thus the highest number indicates cluster size of five or more children.

Table 9.22   Descriptives of cluster membership: number of clusters and cluster size

Cluster membership		N	M	SD	min	max
anzahl_g	Number of social cluster memberships	343	1.10	0.71	0	5
anzgrp2	Number of social cluster memberships (maximum = 2 or more clusters)	343	1.04	0.50	0	2
grupgros	Cluster size	307	3.22	1.37	2	8
grupgrs1	Cluster size (maximum = 5 or more children)	307	3.10	1.08	2	5

9.3.3 Gender and Age group Segregation of Peer Relationships

Peer nominations and social cluster membership were entered into a matrix containing all possible dyads. The relational structure of the data made it possible to determine unilateral and reciprocal nominations. As gender and age group segregation is a well-known finding in peer relations research (Hartup, 1983), I differentiated between gender and age group composition. In the following analyses, the unit of analysis is dyadic (N_D).

As can be seen in Table 9.23, peer relationships in kindergarten are clearly gender-segregated. Reciprocal social preference, best friends, friends, and cluster membership were more frequent among boy-boy or girl-girl dyads than among mixed-gender dyads.

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[15] Children who were members of several clusters were assigned the value of the highest status cluster

Table 9.23:   Percentage of reciprocal nominations by gender composition ($N_D = 6144$, $n_D > 1219$)

Gender composition	Social preference	Best friend	Friends	Cluster membership[a]
boy-boy	17.0%	3.9%	11.6%	20.5%
girl-boy	3.1%	0.5%	1.8%	2.6%
girl-girl	23.3%	3.8%	15.8%	22.9%
Total	11.2%	2.2%	7.5%	11.9%

Note: Unit of analysis is the dyad
[a] $N_D = 6434$

Likewise, age group seems to be a selection criteria for peer relationships. Particularly children of the older age showed a preference for having same-age friends (see Table 9.24).

Table 9.24:   Percentage of reciprocal nominations by age group composition ($N_D = 6144$, $n_D > 1000$)

Age group composition	Social preference	Best friend	Friends	Cluster membership[a]
older-older	15.7%	3.3%	11.2%	15.3%
younger-older	7.8%	1.2%	4.6%	7.7%
younger-younger	10.0%	2.2%	6.8%	15.7%
Total	11.2%	2.2%	7.5%	11.9%

Note: Unit of analysis is the dyad
[a] $N_D = 6434$

9.3.4 Peer Relations from Teacher's Perspective

Originally, five items tapped the issue of peer relations. The scale contained five items: *Has a close friend; Liked by most peers; Makes friends easily; Has many friends;* and *Maintains friendships*. To differentiate between different aspects of peer relations (friendship and social status), these variables were not taken together. In order to parallel peer relations assessed in the child interview, I differentiated between having a *close friend*, having *playmates,* and *acceptance*. The latter variable will be discussed in Section 9.4.3.

In sum, the scale "playmates" contained three items: *Makes friends easily; Has many friends;* and *Maintains friendships* (inter-item correlations $> .70$; *Cronbach's* $\alpha = 0.90$), whereas the scale "best friend" contained only one item: *Has a close friend* ($M = 3.47$, $SD = 1.34$, $N = 339$).

Table 9.25:   Descriptives and reliability of playmates subscale

Items in teacher questionnaire	N[a]	M	SD	Corrected item-total correlations	Cronbach's α if item deleted
kfall5 Makes easily friends	338	3.41	1.13	.85	.82
kfall10 Has many friends	339	3.20	1.23	.83	.84
kfall23 Maintains friendships	339	3.69	1.10	.75	.91
Playmates subscale: α = .90	340	3.43	1.05		-

Note: 5-point rating scale: not true at all (1) to absolutely true (5)
[a]Valid N (listwise) = 338

9.4   Assessment of Social Status

Three different measures were used to assess children' social status, i.e. their standing in the group: social preference (peer nominations received as being taken on the bus trip), centrality (SCM-technique), and acceptance (teacher rating).

9.4.1   Social Preference - Peer Nominations

According to Hartup (1983), social status may be measured by various frames of reference, for example, choices of seating companions, being liked or even being best friends. We used a very general question to assess social preference ('being taken on the bus trip'). This measure allowed children to nominate peers whom they would prefer to be with, and not only children whom they really play with or children whom they would chose due to their abilities.

As we did not use negative nominations, we were not able to establish the sociometric status categories commonly used such as being popular or rejected (Coie et al., 1982). Nevertheless, positive nominations may be used to establish whether a child is socially preferred. It is assumed that the more nominations a child receives, the better his or her social status in the group is. Due to differences in class size, nomination scores were transformed into percentages based on the number of children interviewed. On average, children received nominations as being taken on the bus trip by 25% of their peers ($M = 24.7$, $SD = 16.1$, $min = 0$, $max = 75.0$).

9.4.2 Centrality - Social Cluster Mapping

The SCM-technique presented above can also be used to assess centrality, i.e. the status of a child. This technique was used to establish child and cluster status as well as the child's centrality. First, to establish centrality, each child was examined in two respects: Was he or she a member of a group and did this cluster have a high, medium or low status (cluster status)?[16]. Second, individual status (high, medium, low, isolated) was assigned to each child (child status). Cluster and child status were used to classify the child according to his or her centrality (nuclear, secondary, or peripheral). The classification criteria for centrality and the number of children in the various status categories are shown in Table 9.26.

Table 9.26:   Classification criteria for centrality in the social network and frequencies ($N = 307$)

Cluster status	Child status		
	High	Medium	Low
High	Nuclear (n = 161)	Secondary (n = 30)	Peripheral (n = 3)
Medium	Secondary (n = 86)	Secondary (n = 15)	Peripheral (n = 1)
Low	Peripheral (n = 7)	Peripheral (n = 4)	Peripheral (n = 0)

Note: Children classified as isolated do not qualify for cluster membership and are not represented in this table (n = 36).

This composite social-cognitive map procedure has been demonstrated to be valid and reliable in a number of different contexts and age groups. Network centrality was associated with various independent measures, such as leadership, popularity, isolation and rejection (Cairns, Gariépy et al., 1998). To assess external validity of this measure, the Spearman rank correlation coefficient was computed between network centrality (nuclear, secondary, peripheral) and the subscales *isolation* and *leadership* (subscales of teacher questionnaire). Children with low network centrality were more often isolated ($r_s = .28$, $p = .000$, $N = 305$) and were less often leaders ($r_s = -.26$, $p = .000$, $N = 307$). Thus, the classification as nuclear, secondary, peripheral appears to be valid.

However, a problem with the classification as being 'isolated' emerged. Because we did not ask the question on isolation, which is included in the original procedure, we

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[16] Children who were members of several clusters were assigned the value of the highest status cluster.

could not be sure to identify isolated children correctly. As Cairns, Gariépy et al. (1998) pointed out, given the free-recall nature of the task, respondents may forget to mention some children. Therefore, children who were not mentioned by others, might be falsely classified as isolated. In fact, 8 of the 'isolated' children (24%) had a best friend in the class and 20 (59%) had at least one friend. Consequently, children with an 'isolated' status were treated as missing and were not included in the subsequent analyses.

9.4.3   Acceptance – Teacher Rating

As described above, teachers rated each child according to whether he or she was *liked by most peers.* The item was rated on a 5-point rating scale: not true at all (1) to absolutely true (5), ($M = 4.01$, $SD = 0.99$). Children who are rated by the teacher as being liked by most peers, presumably have a high social status.

Table 9.27 presents intercorrelations between the various social status measures.

Table 9.27:   Intercorrelations between various social status measures

Social status measures	1.	2.	3.	4.	5.
1. Social Preference	--	.36	.41	.37	.22
2. Acceptance		--	.13	.12	.07
3. Centrality[a]			--	.81	.51
4. Cluster status[a]				--	.03
5. Child status[a]					--

Note: Shaded cells show significant associations (α-level = .05)
N > 304 (pairwise deletion)
[a]Children with isolated status were not included

9.5   *A Closer View: Naturalistic Observations*

In order to complement information assessed by means of questionnaires and interviews, naturalistic observations were carried out. These observations aimed at investigating social interactions of children involved in bully/victim problems.

9.5.1 Selection of Observational Method

Observation is no standardized assessment technique. Various methods can be differentiated mainly in terms of setting, recording media, and recording procedure (Pellegrini, 1996). Figure 9.1 depicts the decision tree which illustrates how we selected our observational method.

Observation methods

systematic	unsystematic
field	laboratory
live	video recording
narratives	pre-definded categories
written narratives	tape recording
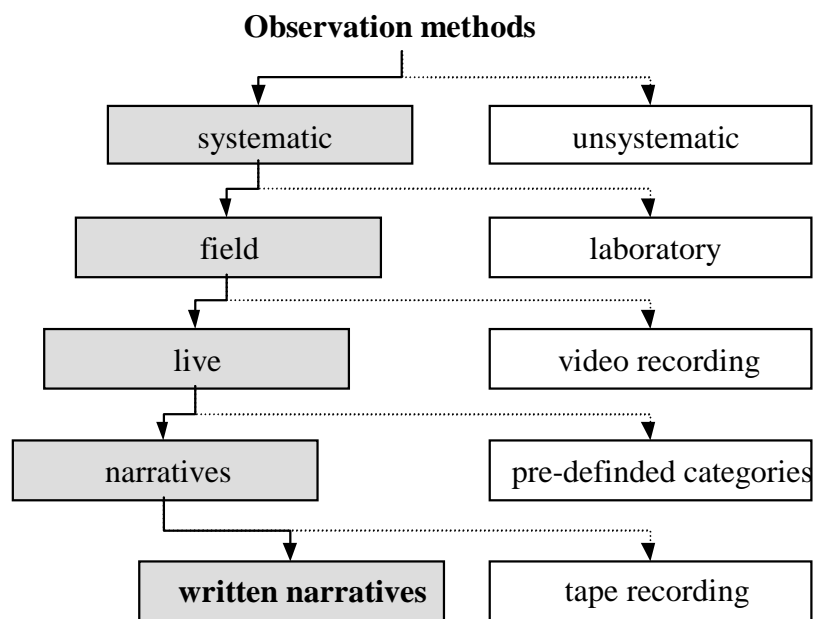
Figure 9.1: Selection of observational method

Because we aimed at making generalizable statements, we decided to conduct systematic observations, which means that observers have to follow an explicit set of rules (Fassnacht, 1995). Although unsystematic or heuristic observation may be useful for diagnostic means, anecdotal evidence, or in establishing new research hypotheses, it is less suitable for the present research purpose whereby a minimum of standardization is requested for replication.

Next, we decided to carry out observations in a natural setting (i.e. field) instead of an artificial setting (i.e. laboratory). Observations of bullying in a laboratory setting may be unethical, particularly when trying to induce bullying behavior. Moreover, laboratory research lacks generalizability of the observed interactions to everyday situations (Pepler & Craig, 1995). According to Pawlik (1988), only behavior occurring in a natural way is representative for everyday interaction.

Observations in the natural kindergarten setting may induce reactivity. As bullying is inversely related to the presence of a teacher or other adults (Olweus, 1995), we might expect that the presence of adult observers reduces the occurrence of bullying behavior. However, there is no evidence that kindergarten children actually display less aggressive behaviors in the presence of adults. Because the presence of additional adults is a quite familiar condition in kindergarten, we expect that children's social behavior is not too much influenced by this situation.

Field observations can be carried out live or by means of a video recording technique. Although video recording has many advantages over live observations, the drawbacks outweigh the benefits. On the one hand, due to the activity level and freedom of movement of kindergarten children a remote location camera is too inflexible and a handheld video recorder too disturbing. On the other hand, language recordings of the focal child is not feasible without expensive microphone installations (e.g. procedure of Pepler & Craig, 1995). Furthermore, the human eye is much more flexible and can adapt more quickly to new situations than a camera (Fassnacht, 1995). Additionally, human observers in a naturalistic setting perceive interaction in their full context which is necessary to understand the meaning of the interaction (Krappmann & Oswald, 1995).

In order to remain open to new insights, we did not use a pre-defined category system which would narrow our view of children's interactions. Instead, we decided to use narrative descriptions as recording procedure. Written narration allows the description of a particular interaction sequence in its larger interactional context (Krappmann & Oswald, 1995). As it is not feasible to describe every detail, observers are required to reduce their recording to information which is particularly relevant to the research question. This restriction obviously narrows potential insights and thus presents a major drawback of this observation procedure.

9.5.2 Observed Children

Observations were carried out in three of the participating kindergartens. We used a number of criteria in selecting the groups, where we wanted to carry out observations:

a) There had to be a good setting for observing the children, which means that the children will be most often in one single room.

b) The kindergarten teacher had to agree to having the class observed.

c) The group should not contain any children whose parents did not allow them to participate.

d) The children should know one of the observers from the interview situation.

e) There should be some bullying in the class.

Bullying is supposed to be a low-frequency behavior. Therefore, we chose children presumed to be involved in bullying in order to increase the chance of observing bullying. Additionally, we made sure to observe at least one girl or one boy in each group. Eleven children (six boys and five girls) were chosen as focal children by the interviewers. The interviewers possessed profound knowledge of bullying. They chose these focal children based on their experiences made throughout the child and teacher interviews and their unsystematic observations in the respective kindergartens. The selection of focal children occurred before and independently of the categorization procedure. Thus, not all of the focal children were really involved in bully/victim problems. Four of the focal children were definitely categorized as bully-victims, one as a victim, one as a bully, and four children failed to meet any criteria for categorization (mixed). One child was nominated as victim only by her peers and not by the teacher, thus she could not be categorized at all (see Table 9.28).

Table 9.28:   Participants in the observational study

	Gender	Age	Mother tongue	Categorization peers' view	Categorization teacher's view	Final Categorization
FC11	Boy	5.58	German	Non-involved	Victim	Victim
FC12	Girl	6.95	German	Non-involved	Mixed	Mixed
FC13	Boy	5.77	foreign-language	Mixed	Bully-victim	Bully-victim
FC14	Boy	6.11	German	Bully	Bully	Bully
FC21	Girl	5.54	foreign-language	Victim	Non-involved	Non-categorized
FC22	Boy	6.89	foreign-language	Bully	Bully-victim	Bully-victim
FC23	Boy	5.26	foreign-language	Mixed	Non-involved	Mixed
FC31	Boy	6.35	German	Mixed	mixed	Mixed
FC32	Girl	6.99	German	Mixed	Mixed	Mixed
FC33	Girl	6.02	foreign-language	Victim	Bully-victim	Bully-victim
FC34	Girl	6.72	foreign-language	Bully	Bully-victim	Bully-victim

9.5.3 Observational Procedure

9.5.3.1   Narrative Records

Each child was observed three times for an interval of at least 40 minutes. During each observation day, two children were chosen as focal children. Two observers recorded the behavior of the same child using narrative descriptions. While observing in kindergarten, they took field notes. Because children in kindergarten are allowed to move freely indoors and outdoors, it was necessary for the observers to follow the focal children to find a good observational position. Additionally, they marked the time period every ten minutes. After each observation period of 40 minutes, they reread their notes and added comments and additional information. They were not allowed to talk to each other about the observations before having completed the final records. We mainly followed the procedure described by Krappmann and Oswald (1995) in order to carry out the narrative records.

At the beginning of the records, standardized information was recorded: *date of observations*, *date of record writing*, *name of the observer*, *the kindergarten*, *absent children*, and *name of the focal child*. One of the observers then described the structure of the lesson observed. In the record we used the children's first names, later their identity-numbers were added. With the help of their field notes and their recollection of the events, the observers described the interactions observed as exhaustively as possible. The observers had to try to understand the meaning of the interactions from the point of view of the children interacting. On the one hand, descriptions had to be as close as possible to the actual events; on the other hand, it was necessary to use qualifying verbs, adjectives, and adverbs to describe emotions and motivations. Human observers have the skill to understand the meaning behind an action: Based on this skill, observers had to recall the perceived meaning as precisely and elaborately as possible. If the observer was unsure about the meaning of an event, she marked these interpretations (Krappmann & Oswald, 1995, pp. 34-35)

The records aimed at answering the following questions:

a) Where is the child (area, items, and persons)?

b) What is the child doing (activities, body gesture, behavior)?

c) How is the child interacting (with whom, how, why...)?

- What does the child do (behavior)?

- How does the child feel (emotion)?

- What does the child want to do (motivation, intention)?
- What does the child say (verbal communication)?
- What does the child express non-verbally (mimic, gestures, body, intonation)?

The first and the second question could be answered as briefly and objectively as possible. The third question was the most important, thus the description of the interactions using the different levels was the most elaborate.

9.5.3.2   Observer Training

The observations were carried out by four students, one student project assistant, one trainee[17] and myself. Six of the seven female observers had conducted interviews in two kindergartens, thus, they already had experience with children and the group situation in kindergarten. At the beginning, all of them participated in an observer training which was organized and supervised by myself.

This training took place in the observation kindergarten at the University of Berne[18]. Due to special installations (one-way mirror, headphones) in this kindergarten, it is possible to carry out unobtrusive observations. The children in this kindergarten did not participate in the study, which allowed us to conduct our observer training there. The goal of the training was to become accustomed to taking field notes. After a theoretical introduction on the special issues of conducting observations, all observers observed one child for one hour, the first half without taking notes and the second half taking notes. The observers then used the field notes to make a record. All observers received personal feedback on their records by the supervisor. Additionally, experiences and problems with this initial observations were discussed. Subsequently, an additional hour of training in the observation kindergarten was carried out.

Before the observers went to their respective kindergartens for half a day, they learned the children's first names using the photos of the first part of the study. This initial visit had different aims: First, the children became accustomed to the presence of two observers. Second, the observer practiced taking field notes in an active group of children. And third, the observers learned the children's names. During this initial

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[17] I would like to thank Sandra v. Burg, Evelyn Jost, Germaine Ott, Renate Tschumi, Flavia Tramanzoli, and Barbara Zbinden.

[18] The parents of the children attending this institution gave a general permission to have their children observed, whenever the researchers wanted to do that. To protect these children against being 'guinea pigs', only observations and no other assessments were allowed.

visit, we realized that one hour of uninterrupted observations was too long for an observer to remain concentrated. Therefore, I reduced the observation interval to 40 minutes.

9.5.3.3   *Interobserver-Agreement*

The behavior of the focal child was always recorded by two observers. As the two observers were not allowed to talk to each other before the record was written down, we had two independent records of the same behavior. The two records were matched by using the time-marks noted.

These parallel records were compared to establish interobserver-agreement. Only 44% of all interaction sequences were identical in both records. The detailed analysis of the non-identical sequences showed that only 2.1% of all interactions were really non-agreeing. The remaining 54% of sequences were complementary information, i.e. only one of the observer recorded a specific interaction sequence.

This quite low agreement may be partly explained by methodological problems. On the one hand, the two observers had different viewing positions which may lead to selective perception: One observer may be too far away to hear the language spoken by the children. Sometimes the focal child even left the visual range of one of the observers. On the other hand, taking field notes is time consuming, and the act of writing down hinders continuous observations. This finding indicated that two independent observers might be necessary to carry out observations by means of written records. Therefore, we analyzed both records and used the additional statements as complementary information.

Another methodological problem was the substantial difference regarding the elaborateness of the observers' records. Some observers wrote three times as much text as others. As the additional text in the more elaborate records was mainly background information, the subsequent coding procedure was not seriously affected by this difference.

9.5.4   Coding procedure

9.5.4.1   *Coding Manual*

The narrative records were coded to assess the quality of social interactions between the focal child, other children and kindergarten teacher. The observation codes were

developed analogously to some of the measures used in the teacher questionnaire and were partly based on a coding manual used in other observational studies (e.g. Pepler et al., 1998).[19] The newly developed coding manual included coding instructions and three different coding schemes (see Appendix B). The coding was carried out in several steps which included repeated readings of the records. A student project assistant[20] and myself coded the narrative records according to the instructions of the coding manual.

Coding Scheme 1: Interaction Quality of Initiations and Responses

First, the narrative descriptions were analyzed with respect to the quality of all initiations and the responses involving the focal child. For each ten-minute interval, the rater separately recorded which child (or teacher) the focal child interacted with, and whether the focal child was the initiating or the responding person in the interaction sequence. Then, the quality of these initiations and responses was evaluated being *positive*, *neutral,* or *negative*. Negative behaviors included overt physical and verbal aggression as well as subtle negative behaviors and rejection.

Coding Scheme 2: Global Ratings on Social Behaviors

In addition, several global ratings were performed every ten-minute period: *quantity of social interactions* (low, average, high); *quality of social interactions of focal child and of others* (negative, neutral, positive); *being dominant or a leader* (not at all, somewhat, absolutely); *the child's ability to set limits* (not at all, somewhat, absolutely); *degree of teacher's guidance* (low, average, high). Finally, raters recorded whether the *child played on his or her own*; displayed *onlooker behavior*; *played with others in a parallel or interactive way*; and whether any *guided activity* occurred (occurrence of play categories).

Coding Scheme 3: Global Ratings on Bullying, Victimization, and Isolation

At the end of each record, raters completed an overall rating on bullying, victimization, and isolation. They judged whether the focal child had a tendency to be

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[19] The coding manual was developed together with Prof. Dr. Debra J. Pepler, York University, Toronto.

[20] I would like to thank Kathrin Hersberger for her endurance.

a bully or/and a victim, and which children were his or her respective targets or perpetrators. Finally, they evaluated how well the child was integrated in the group.

9.5.4.2   *Interrater-Agreement*

The two raters coded four records together in order to arrive at a common interpretation of observation codes and rating definitions. Subsequently, five identical records were coded by both raters individually to check interrater-agreement. The remaining records were distributed among the two raters who then conducted independent coding. The two raters met each other regularly to discuss definition and interpretation problems. During this assessment period, two more records were checked on interrater-agreement. In total, 7 of the 33 protocols (21%) were checked for reliability.

Agreement was checked on all levels of coding: number of interaction sequences; agreement on social interaction quality; agreement on global ratings; and occurrence of play categories. Detailed information on these measures is shown in Table 9.29. Interrater-agreement was moderate to high, dependent on the agreement measure and on the variables.

Table 9.29:   Various agreement measures

Coding scheme	Agreement measures		Sum	M	min	max
Coding scheme 1: Interaction quality of initiations and responses	Number of episodes		303	43.3	22	62
	Number of corresponding episodes		236	33.7	20	53
	Percentage of corresponding episodes		77.9%	78.6%	70.9%	90.9%
	Interaction quality of corresponding episodes (9 categories)	Percentage agreement	80.7%	81.1%	74.2%	87.1%
		Correlation	1.00	.98	.94	1.00
		Kappa	.74	.74	.66	.81
Coding scheme 2: Ratings on social behaviors	Agreement of ratings (4 ratings)	Percentage agreement	73.4%	73.2%	62.5%	83.3%
		Correlation	1.00	.85	.52	.98
		Kappa	.58	.57	.45	.76
	Agreement of ratings (without category uncodable)	Kappa (weighted)	.63	.63	.50	.80
	Agreement of occurrence and non-occurrence of play categories	Percentage agreement	83.3%	83.3%	75.0%	93.3%

As can be seen in Figure 9.2, there was considerable fluctuation in the extent of agreement over time. However, there was no significant decrease over time. The fluctuations were partly due to the quality of the narrative records. The more elaborated the records were, the more difficulties the raters had to conduct the global ratings. In that case the agreement was only moderate.

Agreement measures over time
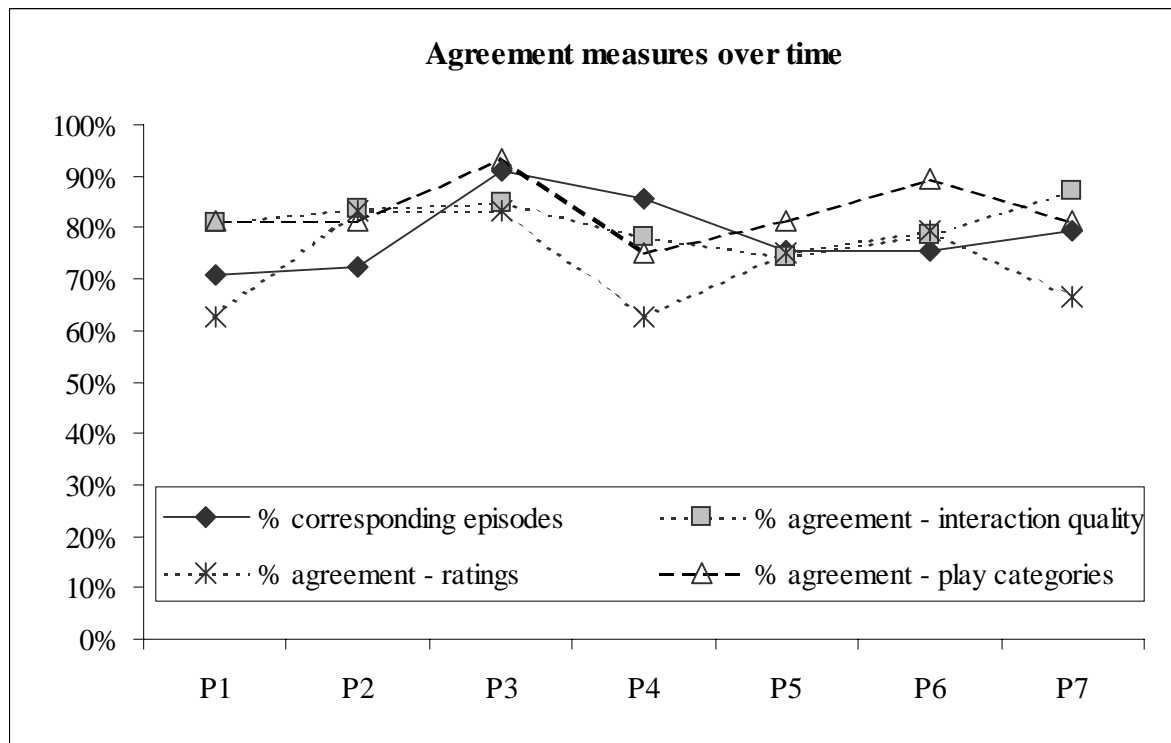
Figure 9.2:   Agreement measures over time (percentage agreements only)

9.5.5   Descriptive Results of Observations

During 1410 minutes of observation time, 1099 interaction sequences with peers and 265 with teachers were coded. 12.3% of the initiations or reactions between children were negative. On average, one negative initiation or reaction occurred every 5.2 minutes. Table 9.30 provides descriptive results of the interaction sequences and ratings. A more detailed account of the observation results for each child is given in Appendix B.

Table 9.30:   Descriptives of observational variables

Observations - Variables	M	SD	min	max
Observation time (number of 10min-intervals)	12.82	1.17	12	15
Interactions with teacher [a]	1.87	0.76	0.71	2.83
Initiations of focal child (teacher)[a]	0.85	0.30	0.29	1.25
Initiations of teacher [a]	1.02	0.61	0.25	1.92
Interactions with peers[a]	7.71	2.55	3.83	11.93
Initiations of focal child[a]	4.56	1.65	2.17	7.43
Initiations of peers[a]	3.16	1.09	1.42	5.36
Positive interactions (peers)[a]	0.37	0.23	0.08	0.86
Neutral interactions (peers)[a]	10.83	3.78	6.17	19.29
Negative interactions (peers)[a]	1.91	0.98	0.25	3.21
No response (peers)[a]	0.70	0.27	0.33	1.07
Uncodable (peers)[a]	1.62	0.87	0.00	2.79
% of negative initiations of focal child (peers)	16.4%	9.8%	2.4%	35.9%
% of negative responses of peers	4.0%	2.9%	0.0%	9.0%
% of negative initiations of peers	16.1%	8.2%	3.2%	31.0%
% of negative responses of focal child (peers)	12.9%	9.5%	0.0%	27.5%
Quantity of social interactions[b]	1.03	0.43	0.25	1.64
Quality of social interactions of focal child[b]	0.84	0.14	0.58	1.00
Quality of social interactions of peers[b]	0.91	0.09	0.75	1.00
Degree of teacher's guidance[b]	0.44	0.23	0.08	0.67
Dominance[b]	0.83	0.51	0.00	1.58
Ability to set limits[b]	1.04	0.50	0.25	1.75
Onlooker behavior [c]	29.5%	16.4%	0.0%	50.0%
Solitary play [c]	51.9%	13.6%	28.6%	75.0%
Parallel/interactive play [c]	82.0%	19.9%	33.3%	100.0%
Guided activity [c]	32.2%	26.0%	0.0%	75.0%
Tendency to be a bully [b]	0.48	0.40	0.00	1.00
Tendency to be victim[b]	0.42	0.37	0.00	1.00
Isolation[b]	0.86	0.65	0.00	2.00

Note: [a] average number per 10-minute-interval
[b] average rating score: 3-point-rating scale: low/negative (0) to high/positive (2)
[c] occurrence in percentages

Box 9.1:   Presentation of Observational Results

'A Closer View'
Presentation of Observational Results

Observations will be used as complementary information to the statistical results. The presentation of the observational data has more descriptive and qualitative features and attempts to give more detailed insights into the everyday social interactions of children involved in bullying.

10 The Nature of Bullying in Kindergarten

10.1 Frequency and Occurrence of Bullying

As presented in the method section, participants were categorized as victims (6%), bullies (11%), bully-victims (10%), and non-involved (47%). Some children could not be categorized, neither as non-involved nor as involved. These children received the label 'mixed' (17%). Figure 10.1 depicts the number of boys and girls involved in bullying and victimization.
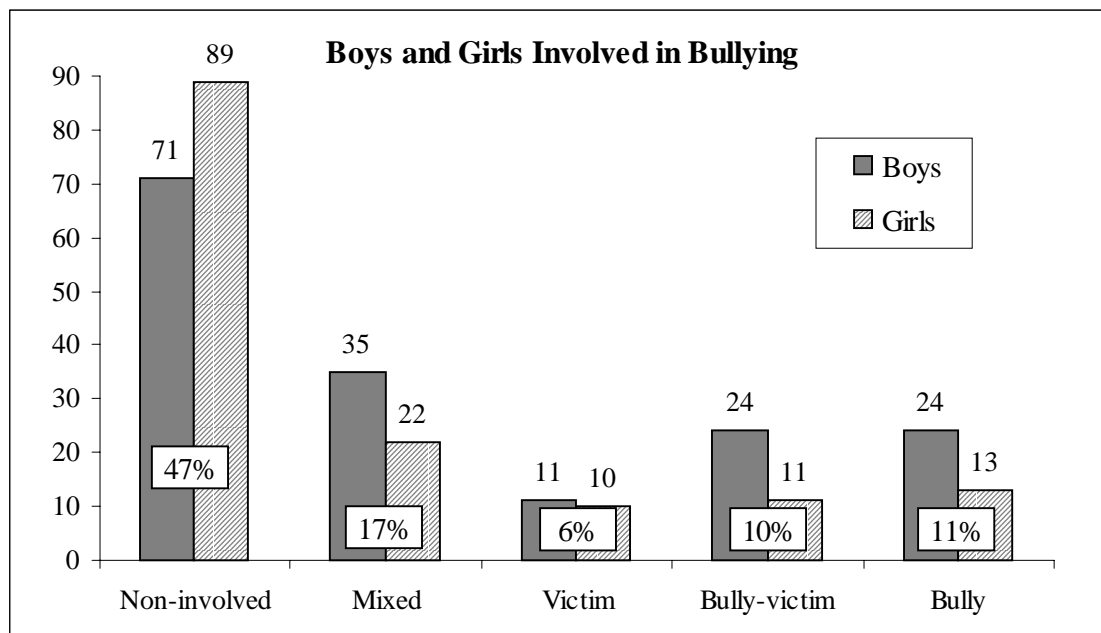
Figure 10.1:   Number of boys and girls involved in bullying

In sum, 37% of kindergarten children in our sample were regularly and actively involved in bullying, either as bullies, bully-victims, or as victims. This high percentage indicates that bullying and victimization occur quite frequently. In 16 of the 18 kindergarten groups, at least one child bullied or was victimized *several times a week*. In the remaining two kindergartens, the maximum score of bullying or victimization was *once a week*. In sum, bullying seems to be an everyday occurrence. However, observations indicated that children and teachers probably only reported the most extreme cases of bullying (see Box 10.1).

Box 10.1   Bullying - A Low Frequency Behavior?

'A Closer View' 1
Bullying - A Low Frequency Behavior?

Observations revealed that bullying is not necessarily a low-frequency behavior. In fact, negative behaviors could be observed quite often. On average, one negative initiation or response occurred every 5.2 minutes. Clearly, not all of these behaviors can be labeled as bullying or victimization. However, the frequency of negative initiations received or given was significantly correlated with children's bullying and victimization scores according to peer nominations and teacher ratings. Because not all children interacted with the same frequency, *absolute* frequencies of initiations and responses were also transformed into *relative* values.

Negative initiations of peers toward the focal child correlated positively with peer nominations as being victimized (relative: $r = .69$, $p = .02$; absolute: $r = .75$, $p = .01$, $N = 11$), but they were negatively correlated with peer nominations as being a bully (relative: $r = -.60$, $p = .05$; absolute: $r = -.36$, $p = .28$). Negative initiations of the focal child were positively correlated with peer nominations as being a bully (relative: $r = .51$, $r = .11$; absolute: $r = .73$, $p = .01$). Negative responses of others were marginally positively correlated with peer nominations as being victimized (relative: $r = .58$; $p = .06$; absolute: $r = .51$; $p = .11$). Moreover, negative responses of the focal child were marginally positively correlated with peer nominations as being victimized (relative: $r = .47$; $p = .15$; absolute: $r = .59$, $p = .06$). The mean teacher bullying score significantly correlated with negative initiations of the focal child (relative: $r = .63$, $p = .04$; absolute: $r = .55$, $p = .08$). In sum, negative initiations or responses of peers were associated with victimization, whereas negative initiations of the focal child were related to bullying.

In conclusion, we were able to observe frequent negative behaviors, which might - in the long run - be even more harmful to the victims than the less frequent but more visible attacks. Children (and teachers) may find it difficult to describe these subtle forms of victimization. Therefore, observations seem to be the only way to depict subtle victimization patterns.

10.2 Involvement in Bullying: Gender and Age Differences

Girls and boys are presumably not equally involved in bullying and victimization. A χ^2-test showed that gender and bullying status were not independent variables, $\chi^2(4, N = 310) = 11.90$, $p = .018$. The results of single comparisons are given in Table 10.1. Girls were significantly more often non-involved in bullying than boys.

Furthermore, there was a tendency for boys to be more often categorized as bully-victims compared to girls.

Table 10.1:   Proportions of boys and girls according to bullying status

Gender	Bullying status				
	Non-involved	Mixed	Victim	Bully-victim	Bully
Boys ($n = 165$)	43.0%	21.2%	6.7%	14.5%	14.5%
Girls ($n = 145$)	61.4%	15.2%	6.9%	7.6%	9.0%
χ^2 (df =1)	10.41 (p = .00)	1.88 (p = .17)	0.01 (p = .94)	3.73 (p = .05)	2.29 (p = .13)

 Note: Shaded cells show significant differences, α-level = .05.

To assess age group differences, a further χ^2-test was performed. The overall χ^2-test was significant, $\chi^2(4,\ N = 310) = 9.63,\ p = .047$. Single comparisons also gave significant results. Children of the older age group were over-represented among the bullies. Younger children showed a tendency to be more often found among the victims. Details are shown in Table 10.2.

Table 10.2:   Proportion of age group according to bullying status

Age group	Bullying status				
	Non-involved	Mixed	Victim	Bully-victim	Bully
Older ($n = 189$)	51.3%	17.5%	4.8%	10.6%	15.9%
Younger ($n = 121$)	52.3%	19.8%	9.9%	12.4%	5.8%
χ^2 (1)	0.02 (p = .90)	0.28 (p= .60)	3.11 (p = .08)	0.24 (p = .62)	7.14 (p = .01)

 Note: Shaded cells show significant differences, α-level = .05.

Furthermore, the combination of age group and gender yielded some interesting information. The overall χ^2-test was significant, $\chi^2(12,\ N = 310) = 28.28,\ p = .005$. Most of the children among the bullies were older boys, whereas the younger boys were over-represented among the victims. As can be seen in Table 10.3, gender and age group seem to be interrelated characteristics.

Table 10.3:   Number of children according to bullying status by gender × age group

Bullying status	Gender × Age group			
	Older boys (n = 99)	Younger boys (n = 66)	Older girls (n = 90)	Younger girls (n = 55)
Non-involved	42 (-1.27)	29 (-0.87)	55 (1.25)	34 (1.05)
Mixed	21 (0.66)	14 (0.54)	12 (-1.12)	10 (-0.04)
Victim	2 (-1.82)	9 (2.14)	7 (0.37)	3 (-0.38)
Bully-victim	14 (0.84)	10 (0.93)	6 (-1.31)	5 (-0.49)
Bully	20 (2.38)	4 (-1.38)	10 (-0.23)	3 (-1.39)

Note: Shaded cells show cells with standardized residuals > 2

To assess whether these gender and age group differences can also be found in bullying and victimization scores, four 2 × 2 (Gender × Age group) ANOVAs[21] were computed. Teachers rated each child on four bullying and victimization items. The 5-point rating-scale ranged from *never* (1) to *several times a week* (5). Peers nominated children who bullied others or were victimized. Due to the difference in group size, nomination scores were transformed into percentages.

The following four variables served as dependent variables: (a) mean teacher rating bullying scores and (b) percentages of bullying nominations; (c) mean teacher rating victimization scores, and (d) percentages of victimization nominations. An α-level of .05 was used for all statistical tests[22]. These analyses revealed significant gender and age main effects. None of the Gender × Age group interactions were significant.

Bullying - gender: Boys scored higher on bullying rating than girls ($M_{boys} = 2.04$, $SD = 0.92$, $n = 174$; $M_{girls} = 1.75$, $SD = 0.75$, $n = 148$), $F(1, 318) = 9.76$, $p = .002$. Likewise, boys were significantly more often nominated as bullies ($M_{boys} = 15.8\%$, $SD = 19.4$, $n = 174$; $M_{girls} = 6.4\%$, $SD = 9.2$, $n = 148$), $F(1, 318) = 29.6$, $p = .000$.

Bullying - age group: According to teacher ratings, children of the older age group bullied more often than younger children ($M_{older} = 1.99$, $SD = 0.89$, $n = 201$;

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[21] Due to the non-orthogonality of independent variables (*Gender × Age group* or *Bullying status × Gender × Age group*), the least squares regression approach for analysis of variance will be used (General Linear Model). The GLM-approach involves three different methods of sum of squares decomposition. For non-experimental research Tabachnik and Fidell (1996) suggested the so called experimental approach (see also Overall & Spiegel, 1969). Thus, a Type II sum-of-squares method was used for these and all subsequent univariate and multivariate analyses.

[22] The α-level of .05 applies to all subsequent univariate and multivariate analyses.

$M_{younger} = 1.77$, $SD = 0.78$, $n = 121$), $F(1, 318) = 5.10$, $p = .025$. Similarly, children of the older age group were more often nominated as bullies than younger children ($M_{older} = 12.8\%$, $SD = 17.5$, $n = 201$; $M_{younger} = 9.2\%$, $SD = 13.8$, $n = 121$), $F(1, 318) = 3.91$, $p = .049$.

Victimization - gender: Boys also scored higher on victimization rating than girls ($M_{boys} = 1.91$, $SD = 0.74$, $n = 174$; $M_{girls} = 1.65$, $SD = 0.61$, $n = 148$), $F(1, 318) = 11.17$, $p = .001$. However, no significant gender effect was obtained for victimization nominations ($M_{boys} = 9.1\%$, $SD = 9.0$, $n = 174$; $M_{girls} = 8.0\%$, $SD = 8.0$, $n = 148$).

Victimization - age group: No significant age effects were found, neither for victimization ratings nor for nominations ($M_{older} = 1.74$, $SD = 0.68$, $n = 201$; $M_{younger} = 1.87$, $SD = 0.72$, $n = 121$; $M_{older} = 8.7\%$, $SD = 8.3$, $n = 201$; $M_{younger} = 8.3\%$, $SD = 9.0$, $n = 121$).

As expected, boys bullied more frequently than girls. However, they were also more often victimized. This result is also reflected in the higher - although not significantly higher - percentage of boys categorized as bully-victims or bullies. This finding indicates that bullying is a more severe problem among boys. Although girls were more frequently categorized as being non-involved in bullying, a considerable number of girls were categorized as being bullies, bully-victims, or victims.

The hypothesis that older children bully more often than younger children was confirmed. Unexpectedly, younger children were not more often victimized than older ones. However, the more detailed analysis indicated that younger boys were more frequently categorized as being victims, whereas older boys were more often bullies.

10.3 Forms of Bullying and Victimization: Gender and Age Differences

We distinguished between four different forms of bullying or victimization: physical forms (hitting, kicking, pinching, biting), verbal forms (laughing at, calling names, teasing), object-related forms (hiding or destroying children's property), and exclusion. All of these forms could be observed in kindergarten (see Alsaker, Perren & Valkanover, 1999). These forms were assessed by means of teacher ratings and peer nominations.

To assess group differences in forms of bullying and victimization, four MANOVAs with a 2 × 2 (Gender × Age group) design were conducted. Four groups of variables served as dependent variables: (a) mean teacher rating bullying scores; (b) percentages of bullying nominations; (c) mean teacher rating victimization scores; and (d)

percentages of victimization nominations. Each of these four MANOVAs was performed on the four forms of victimization and bullying: *physical*, *verbal*, *exclusion*, and *object-related forms*. Each multivariate analysis was followed by univariate analyses[23]. Several significant multivariate effects of age group or gender were obtained, but none of the four MANOVAs yielded significant Gender × Age group interactions. Statistical results are presented in the following sections.

10.3.1 Teacher Rating Bullying Scores

The analysis of teacher rating bullying scores indicated that boys used physical, verbal, and object-related forms of bullying more often than girls (see Table 10.4). Moreover, children of the older age group more often bullied verbally and by means of exclusion (see Table 10.5)

Table 10.4:   Mean teacher rating scores on forms of bullying by gender

Forms of bullying	Boys (n = 174)	Girls (n = 148)	Univariate F-tests[a]
physical	2.21 (1.25)	1.68 (0.99)	$F(1, 318) = 16.96$, p = .000
verbal	2.27 (1.20)	1.97 (1.13)	$F(1, 318) = 5.55$, p = .019
exclusion	1.98 (0.93)	2.03 (1.03)	n.s.
object-related	1.71 (1.01)	1.31 (0.60)	$F(1, 318) = 18.01$, p = .000

Note: [a]Multivariate F-test: Hotelling's $F(4, 315) = 8.66$, p=.000

Table 10.5:   Mean teacher rating scores on forms of bullying by age group

Forms of bullying	Older (n = 201)	Younger (n = 121)	Univariate F-tests[a]
physical	1.99 (1.14)	1.93 (1.21)	n.s.
verbal	2.31 (1.26)	1.83 (0.95)	$F(1, 318) = 13.58$, p = .000
exclusion	2.14 (1.08)	1.77 (0.73)	$F(1, 318) = 11.19$, p = .001
object-related	1.52 (0.83)	1.55 (0.93)	n.s.

Note: [a]Multivariate F-test: Hotelling's $F(4, 315) = 6.59$, p=.000

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[23] When the dependent variables of interest were conceptually and statistically highly related, one multivariate analysis was performed instead of multiple univariate analyses. Multivariate tests were performed in order to control for multiple tests. Thus, if the multivariate F-test was not significant, univariate tests were not interpreted (Bray & Maxwell, 1985). This procedure was applied to all subsequent multivariate analyses.

10.3.2   Teacher Rating Victimization Scores

The analyses regarding teacher rating victimization scores yielded significant main effects of gender and age group. Boys were victimized more often by physical and object-related means and were also more frequently excluded than girls (see Table 10.6). Furthermore, younger children were more often excluded than older children (see Table 10.7).

Table 10.6:   Mean teacher rating scores on forms of victimization by gender

Forms of victimization	Boys (n = 174)	Girls (n = 148)	Univariate F-tests[a]
physical	2.15 (1.07)	1.71 (0.78)	$F(1, 318) = 17.83$, p = .000
verbal	2.03 (0.93)	1.87 (0.97)	n.s.
exclusion	1.9 (0.99)	1.68 (0.97)	$F(1, 318) = 7.98$, p = .005
object-related	1.55 (0.73)	1.35 (0.49)	$F(1, 318) = 4.19$, p = .041

Note: [a]Multivariate F-test: Hotelling's $F(4, 315) = 5.73$, p = .000

Table 10.7:   Mean teacher rating scores on forms of victimization by age group

Forms of victimization	Older (n = 201)	Younger (n = 121)	Univariate F-tests[a]
physical	1.89 (0.89)	2.04 (1.08)	n.s.
verbal	1.95 (0.99)	1.98 (0.89)	n.s.
exclusion	1.69 (0.89)	1.97 (1.10)	$F(1, 318) = 6.13$, p = .014
object-related	1.44 (0.63)	1.49 (0.66)	n.s.

Note: [a]Multivariate F-test: Hotelling's $F(4, 315) = 2.37$, p = .052 (only marginally significant)

10.3.3   Peer Nomination Bullying Scores

The analysis of peer nomination scores yielded only significant gender effect and no age group effects (see Table 10.9). Boys more often bullied others physically, verbally, and through object-related forms (see Table 10.8)

Table 10.8:   Mean peer nomination scores on forms of bullying by gender

Forms of bullying	Boys (n = 190)	Girls (n = 154)	Univariate F-tests[a]
physical	10.1 (15.2)	2.9 (6.1)	$F(1, 340) = 30.58$, p = .000
verbal	4.9 (8.6)	2.7 (5.1)	$F(1, 340) = 8.02$, p = .005
exclusion	2.2 (4.5)	1.8 (3.5)	n.s.
object-related	3.6 (6.1)	0.7 (2.1)	$F(1, 340) = 31.50$, p = .000

Note: [a]Multivariate F-test: Hotelling's $F(4, 337) = 10.60$, p = .000

Table 10.9:   Mean peer nomination scores on forms of bullying by age group

Forms of bullying	Older (n = 208)	Younger (n = 136)	Univariate F-tests[a]
physical	7.7 (13.4)	5.5 (10.9)	
verbal	4.4 (7.6)	3.2 (6.9)	
exclusion	2.3 (4.2)	1.6 (3.9)	
object-related	2.6 (5.3)	1.9 (4.3)	

Note: [a]Multivariate F-test: Hotelling's $F(4, 337) = 1.06$, p = .377

10.3.4   Peer Nomination Victimization Scores

The analysis indicated that boys were more often physically victimized than girls (see Table 10.10). However, age group yielded no significant effects with respect to forms of victimization (see Table 10.11)

Table 10.10: Mean peer nomination scores on forms of victimization by gender

Forms of victimization	Boys (n = 190)	Girls (n = 154)	Univariate F-tests[a]
physical	8.2 (7.9)	6.2 (6.2)	$F(1, 340) = 5.92$, p = .015
verbal	3.9 (5.4)	3.9 (5.0)	n.s.
exclusion	1.6 (3.2)	2.1 (3.3)	n.s.
object-related	2.5 (3.6)	1.9 (3.6)	n.s.

Note: [a]Multivariate F-test: Hotelling's $F(4, 337) = 3.42$, p = .009

Table 10.11: Mean peer nomination scores on forms of victimization by age group

Forms of victimization	Older (n = 208)	Younger (n = 136)	Univariate F-tests[a]
physical	7.4 (7.0)	7.1 (7.5)	
verbal	4.4 (3.2)	3.2 (4.7)	
exclusion	2.0 (3.3)	1.7 (3.2)	
object-related	2.2 (3.5)	2.2 (3.8)	

Note: [a]Multivariate F-test: Hotelling's $F(4, 337) = 1.41$, p=.231

In sum, various gender and age group differences regarding specific forms of bullying and victimization could be established. I hypothesized that boys would display physical bullying more often, whereas girls would prefer indirect means of bullying. However, these expectations were only partly confirmed. Boys bullied more often through physical, verbal, and object-related means, whereas no gender difference regarding indirect bullying emerged. As expected, boys were also more often victimized physically. Moreover, they scored higher on all other forms of victimization forms. Older children more often bullied verbally or by exclusion, whereas younger children were excluded more often than older children.

10.4 Forms of Bullying and Victimization: Bullying Status Differences

To examine whether bullies and bully-victims used identical forms of bullying, two discriminant analyses were conducted. Teacher's and peers' bullying scores were entered in two different sets of analyses. Mean bullying scores of bullies and bully-victims can be seen in Figure 10.2 and Figure 10.3.
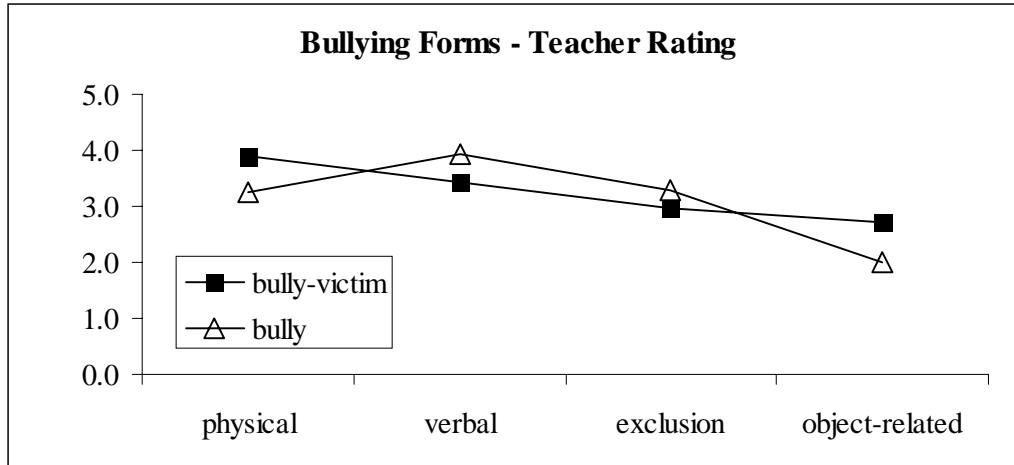
Figure 10.2:   Bullying profiles of bullies and bully-victims according to teacher's view.
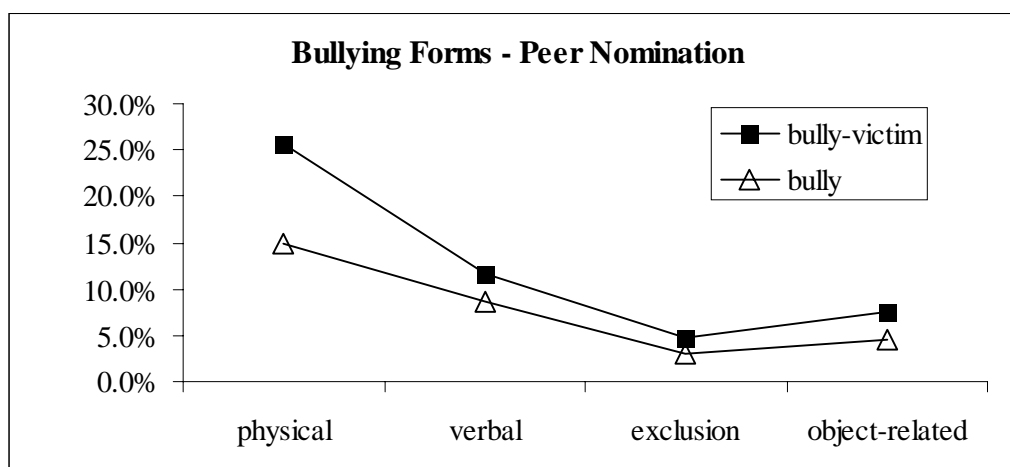
Figure 10.3:   Bullying profiles of bullies and bully-victims according to peers' view

The analyses revealed a significant discriminant function of the teacher's bullying scores. The results indicated that bully-victims more often used physical and object-related forms of bullying and less frequently used verbal and indirect bullying (see Table 10.12). In contrast, the discriminant function of peer nominations reached not significance. However, univariate analyses revealed that bully-victims were more often nominated as physically bullying others than bullies, $F(1, 70) = 6.01$, $p = .017$.

Table 10.12:   Results of discriminant analysis of bullying scores

Forms of bullying	Teacher rating bullying scores [a]	Peer nomination bullying scores [a]
Physical	.613	.922
Verbal	-.490	.445
Exclusion	-.283	.464
Object-related	.623	.576
Discriminant functions	$\lambda =.19$, V = 10.80 (4; N = 72) p = .029	$\lambda =.10$, V = 6.54 (4; N = 72) p = .16

Note: [a]Pooled within-groups correlations between discriminating variables and canonical discriminant function

Furthermore, in order to assess whether victims and bully-victims were exposed to the same forms of victimization, two discriminant analyses were performed. Mean teacher rating scores and peer nomination scores can be seen in Figure 10.4 and Figure 10.5.
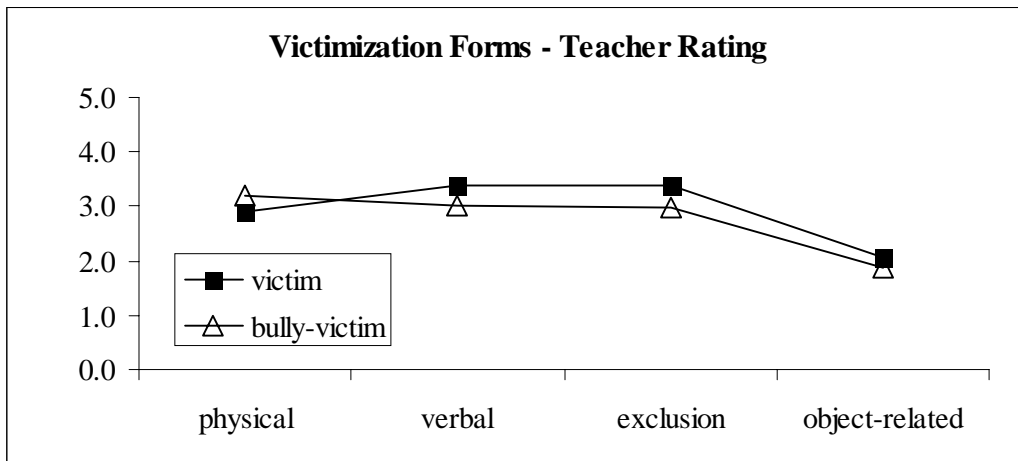
Figure 10.4:   Victimization profiles of victims and bully-victims according to teacher's view.
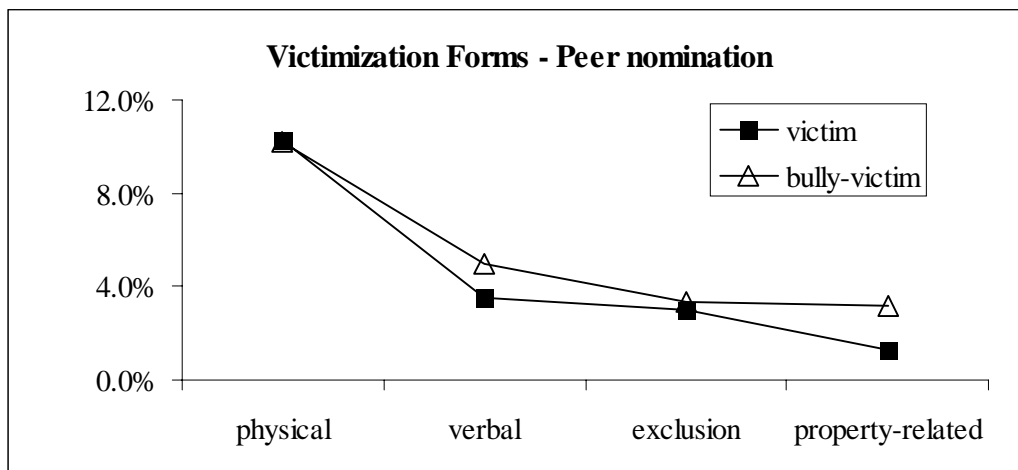
Figure 10.5:   Victimization profiles of victims and bully-victims according to peers' view

None of the discriminant functions were significant (see Table 10.13). Furthermore, none of the univariate analyses reached significance. The difference between bully-victims and victims with respect to object-related forms of victimization was marginally significant, $F(1, 54) = 3.78$, $p = .056$.

Table 10.13: Results of discriminant analysis of victimization scores

Forms of victimization	Teacher rating victimization scores[a]	Peer nomination victimization scores[a]
Physical	-.377	-.006
Verbal	.563	.524
Exclusion	.513	.124
Object-related	.293	.948
Discriminant functions	λ =.09, V = 4.2 (4; N = 56) p = .379	λ =.078, V = 3.91 (4; N = 56) p = .419

Note: [a]Pooled within-groups correlations between discriminating variables and canonical discriminant function

In sum, bullies and bully-victims can be differentiated in terms of their use of bullying forms. Bullies preferred verbal and indirect forms, whereas bully-victims preferred physical and object-related ways of bullying. This finding supports my hypothesis that bullies more often display indirect forms of bullying and that bully-victims more often use physical bullying. No differences emerged between bully-victims and victims regarding forms of victimization.

Box 10.2:   Bully-victims: Bullies or Victims?

'A Closer View' 2
Bully-victims - Bullies or Victims?

Bully-victims are children who bully others and who themselves are victimized. As described above, we categorized children based on teacher ratings and peer nominations, but we gave more weight to the teacher's view. However, observational results showed that children may - at least in some cases - have a more differentiated view than their teachers.

Negative interactions of the focal child may be considered as bullying behavior, whereas negative interactions of peers are conceived as victimization. I expect that for 'bullies' the proportion of negative initiations or responses *given* is larger than the proportion of negative initiations or responses *received*. For 'victims' I assume the opposite interaction pattern. Four focal children were categorized as bully-victims. This allows us to compare their behavior patterns.

In kindergarten 3, two girls were categorized as bully-victims (FC33, FC34). The teacher rated both girls as being victimized once a week physically, verbally, and by exclusion. Additionally, both girls bullied others once a week physically, verbally, and by exclusion. However, four children nominated FC33 as being a victim (only one bully nomination), whereas five children rated FC34 as being a bully (no victim nominations). In fact, observations pointed in the same direction. One of the girls behaved more like a victim, and the other more like a bully. 31% of the initiations of peers toward FC33 were negative, whereas the girl initiated negatively only in 15%. In contrast, 28% of the initiations of F34 were negative and also 26% of her responses to peers, whereas only 19% of initiations of others were negative (see Figure 10.6). Similarly, the overall rating of F33 yielded a weak tendency to being a victim, whereas F34 was judged as having bully-tendencies.

In kindergarten 1, one boy was categorized as bully-victim (FC13). He bullied others once to several times a week (all forms) and was victimized physically several times a week. He was nominated twice as victim and once as bully. Observations indicated that he behaved more like a bully than a victim. He initiated more often negatively toward peers than others toward him (see Figure 10.6). Moreover, FC13 was rated as having bully-tendencies. Additionally, he was rated as being isolated. This might explain why the teacher perceived him not only as being a bully, but also as being victimized.

In kindergarten 2, one of the observed boys was categorized as a bully-victim (F22). According to the teacher, he bullied physically, verbally, object-related, and by exclusion once to several times a week, and was victimized physically and verbally several times a week. However, 15 children rated him as being a bully (only one victim-nomination). Our observations agreed more with the peers' view. He initiated very often negatively toward others (36% of all initiations), whereas others were seldom negative toward him (see Figure 10.6). The coders rated F22 as having bully- and victim-tendencies.

In sum, these results indicate that peers' view is sometimes more differentiated than teacher's view and should thus be taken into account. Further, the categorization of children as bully-victims may be an oversimplification as bully-victims are a very heterogeneous group. Some bully-victims were clearly observed to behave more like victims, whereas others behaved more like bullies.
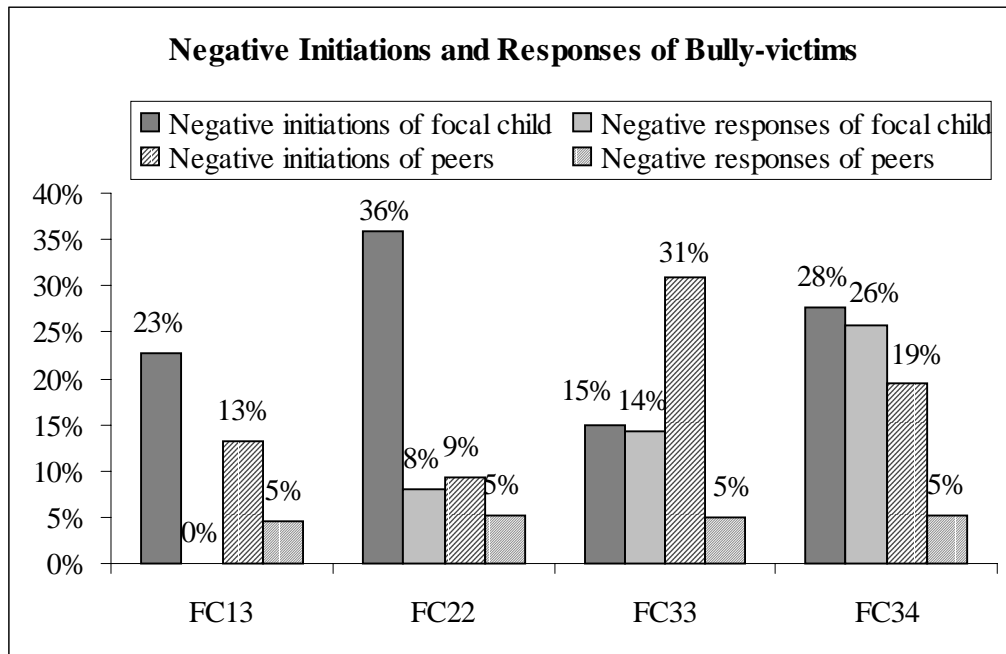
Figure 10.6: Proportions of negative initiations and responses

10.5 Who is Victimized by Whom?

Not only children categorized as bullies, bully-victims, or victims may be involved in dyads with negative interaction patterns. As I aimed at investigating *who is victimized by whom* or *who bullies whom*, only dyads involving at least one bully, bully-victim, or victim were analyzed. These dyads were used to establish targets of bullies and bully-victims as well as perpetrators of victims and bully-victims.

10.5.1 Number of Targets and Perpetrators

Some children were involved in several negative interaction dyads. This information was used to establish the number of targets or perpetrators. Furthermore, children as well as teachers reported that some children bullied 'everybody' or were victimized by all children of the group. These answers indicated that several bullies or bully-victims did not behave negatively toward specific children but toward many children in their group. 24% of the bullying children ($N = 62$) had *one or two targets*, 34% had *three or more targets*, and 42% bullied '*everybody*'.

In order to examine group differences in the number of targets, several χ^2-tests were performed. Gender, age group as well as bullying status served as grouping variables. The analyses indicated that there are differences between older and younger children regarding the number of targets. Younger children less often had three or more specific targets, but more frequently bullied 'everybody' (see Table 10.14). However, neither bullying status nor gender had a significant effect on the number of targets, ($\chi^2(2, N = 62) = 3.11, p = .221; \chi^2(2, N = 62) = 2.18, p = .336$).

Table 10.14: Number of targets by age group (bullying children only, $N = 62$)

Age group	One or two targets	Three or more targets	'Everbody' as target
Older children	10 (-0.3)	20 (1.1)	16 (0.7)
Younger children	5 (0.6)	1 (-1.9)	10 (1.3)

Note: $\chi^2(2, N = 62) = 7.48, p = .024$ (standardized residuals in brackets)

38% of victims or bully-victims ($N = 46$) were victimized by *one or two perpetrators*, 36% had *three or more perpetrators* and 26% were victimized by '*everybody*'. Bullying status was independent of the number of perpetrators, $\chi^2(2, N = 46) = 0.69, p = .707$. Moreover, neither age group nor gender had an effect on the number of perpetrators ($\chi^2(2, N = 46) = 1.73, p = .421; \chi^2(2, N = 46) = 3.21, p = .201$).

10.5.2 Bullying Status of Targets and Perpetrators

Bullying children may behave negatively against victimized children (victims and bully-victims) or against 'others' (e.g. non-involved). 21% of bullying children ($N = 62$) only targeted children categorized as victims or bully-victims. 79% of them did not limit their attacks to children identified as being victimized but also behaved negatively against 'others'.

Again, bullying status, age group, and gender served as grouping variables. The analyses yielded no significant gender and bullying status differences with respect to bullying status of targets ($\chi^2(2, N = 62) = 0.65, p = .421; \chi^2(2, N = 62) = 0.28, p = .595$). Moreover, age group did not reach significance. However, the analysis revealed the tendency that younger children more often bullied only children categorized as being victimized (see Table 10.15).

Table 10.15: Bullying status of targets by age group (bullying children only, N = 62)

Age group	Victims and/or bully-victims only	Victims and/or bully-victims and 'others'
Older children	7 (-0.9)	39 (0.4)
Younger children	6 (1.4)	10 (-0.7)

Note: χ^2(2, N = 62) = 3.56, p = .059 (Standardized residuals in brackets)

48% of victims or bully-victims ($N = 46$) were victimized only by children categorized as bullying, whereas 52% of them were also targeted by 'others'. Again, bullying status, gender, and age group served as grouping variables. No bullying status or age group differences emerged regarding bullying status of perpetrators (χ^2(2, $N = 46$) = 0.003, $p = .958$; χ^2(2, $N = 46$) = 3.13, $p = .077$). However, the analysis revealed that boys were victimized by 'others' more often than girls (see Table 10.16).

Table 10.16: Bullying status of perpetrators by gender (victimized children only, $N = 46$)

Gender	Bullies and/or bully-victims only	Bullies and/or bully-victims and 'others'
Boys	11 (-0.9)	19 (0.8)
Girls	11 (1.2)	5 (-1.2)

Note: χ^2(2, N = 46) = 4.31, p = .038 (standardized residuals in brackets)

10.5.3 Gender of Targets and Perpetrators

Next, we established gender of targets and perpetrators. 27% of bullying children ($N = 62$) behaved negatively toward *boys only*, 19% toward *girls only*, and 53% toward *boys and girls*. Bullying status, age group, and gender were used as grouping variables. Bullying status was not related to gender of the target, χ^2(2, $N = 62$) = 1.07, $p = .585$. Although age group did not reach significance, there was a tendency for younger children to more often victimize girls only (see Table 10.17). Moreover, gender of the bullying children and gender of the targets were not independent. Boys and girls rarely victimized children of the opposite gender only, whereas girls mostly targeted only other girls (see Table 10.18).

Table 10.17: Gender of targets by age group (bullying children only, $N = 62$)

Age group	Boys only	Girls only	Boys and girls
Older children	12 (-0.2)	6 (-1.0)	28 (0.7)
Younger children	5 (0.3)	6 (1.6)	5 (-1.2)

Note: $\chi^2(2, N = 62) = 5.74$, p = .057 (standardized residuals in brackets)

Table 10.18: Gender of targets by gender (bullying children only, $N = 62$)

Gender	Boys only	Girls only	Boys and girls
Boys	15 (0.8)	4 (-1.5)	25 (0.3)
Girls	2 (-1.3)	8 (2.4)	8 (-0.5)

Note: $\chi^2(2, N = 62) = 11.08$, p = .004 (standardized residuals in brackets)

52% of victimized children ($N = 46$) were targeted by *boys only*, 13% by *girls only*, and 35% by *boys and girls*. No bullying status and age group difference emerged, ($\chi^2(2, N = 46) = 1.31$, $p = .518$; $\chi^2(2, N = 46) = 1.58$, $p = .453$). Boys were mainly victimized only by boys, or by boys and girls, but no boy was targeted only by girls (see Table 10.19).

Table 10.19: Gender of perpetrators by gender (victimized children only, $N = 46$)

Gender	Boys only	Girls only	Boys and girls
Boys	20 (1.1)	0 (-2.0)	10 (-0.1)
Girls	4 -(1.5)	6 (2.7)	6 (0.2)

Note: $\chi^2(2, N = 46) = 14.77$, p = .001 (standardized residuals in brackets)

10.5.4 Age Group of Targets and Perpetrators

27% of bullying children ($N = 62$) targeted only older children, 18% only targeted children of the younger age group, whereas 55% victimized younger as well as older children.

Bullying status yielded no significant effect, $\chi^2(2, N = 62) = 0.56$, $p = .757$. However, gender and age group were not independent of targets' age group. Older children victimized older and/or younger children, whereas younger children mainly

victimized younger children (see Table 10.20). Girls more frequently only bullied children of the older age group.

Table 10.20: Age group of targets by age group (bullying children only, $N = 62$)

Age group	Older children only	Younger children only	Younger and older children
Older	15 (0.7)	4 (-1.5)	27 (0.4)
Younger	2 (-1.1)	7 (2.5)	7 (-0.6)

Note: χ^2(2, N = 62) = 10.46, p = .005 (standardized residuals in brackets)

Table 10.21: Age group of targets by Gender (bullying children only, $N = 62$)

Gender	Older children only	Younger children only	Younger and older children
Boys	8 (-1.2)	10 (0.8)	26 (0.4)
Girls	9 (1.8)	1 (-1.2)	8 (-0.6)

Note: χ^2(2, N = 62) = 7.34, p = .025 (standardized residuals in brackets)

41% of victimized children ($N = 46$) was targeted by *older children only*, 11% by *younger children* only, and 48% were victimized by *younger and older* children. No significant effects emerged regarding bullying status, age group, or gender (χ^2(2, $N = 46$) = 4.21, $p = .122$; χ^2(2, $N = 46$) = 1.73, $p = .421$; χ^2(2, $N = 46$) = 0.81, $p = .914$).

In sum, bullying not only affected a small number of children in a group. Most children bullied more than one specific target, many of them even bullied 'everybody'. This finding indicates that bullying does not only involve some specific children but may involve the whole kindergarten group. In contrast to my expectations, bully-victims neither had a higher number of targets nor did they more often attack 'others' than bullies.

Older children more often had three or more specific targets, whereas younger children more often bullied 'everybody'. As expected, the general pattern of older children bullying younger ones was established. Older children bullied younger and older children, whereas younger children mostly bullied younger children only.

The hypothesis that boys are mainly bullied by boys whereas girls are bullied by boys and girls could be partly confirmed. Girls bullied only girls and seldom only

boys, whereas boys seldom bullied only girls. Female victims and bully-victims were mainly victimized by girls only, whereas boys mainly had male perpetrators.

Furthermore, girls more often victimized children identified as being victimized, whereas boys frequently also targeted 'others'. Likewise, girls were more often victimized by bullying children, whereas boys often also had 'others' as perpetrators. These latter findings indicate that for boys bullying might be a negative interaction pattern which involves everybody, whereas for girls bullying is more specific and reduced to certain individuals.

Box 10.3:   A bully and victim - power asymmetry or partner effects?

'A Closer View' 3
A Bully and a Victim - Power Asymmetry and Partner Effects?

Bullying is an interactional event which involves power asymmetry between bully and victim. On the one hand, we asked teachers and peers to report (presumed) bully/victims dyads. This information was used to establish negative interaction dyads. On the other hand, the coding of the observation records also involved the question of *who is victimized by whom*. Thus, we may gain insights into the interactional context of bullying.

In kindergarten 1, among the four children observed, one boy was categorized as a bully (FC13) and the other as a victim (FC11). Teacher and peers indicated that FC11 (victim) was bullied by FC14 (bully). Further, FC11 admitted being afraid of FC13, but he also nominated his bully as being his playmate. Moreover, the victim was rated by the coders as having victim-tendencies. Three children were nominated by the raters as potential bullies - FC14 was among them. This agreement is remarkable as the coders were neither aware of the bullying status of the focal child, nor of the negative interaction dyads identified. In conclusion, there seems to be a quite stable bully/victim relationship between these two boys, which may be observed by neutral outsiders as well as by teachers and peers.

In fact, we were able to observe some interaction sequences between these two children. Although, we were not able to observe very many negative interaction sequences between the boys, the coders intuitively felt that FC11 might be victimized by FC14. Possibly, there are some qualities in the interactions between these boys that lead to the conclusion that one is victimized by the other boy. Assumedly, these qualities refer to power asymmetries: one child was perceived as being powerless and the other as being powerful. Thus, power asymmetry inherent in bullying seems to be observable, even if no actual bullying episodes are observed. Although power asymmetry is not yet bullying, it may predispose the victim to being bullied. The encounter of two boys with a different power status may lead to victimization, when one of the two children involved has a need to dominate others, and is prone to fulfill his needs by means of aggression.

However, FC11 was rated as having victim-tendencies only in two of the three observation sequences. The raters described him as being quite lonely. Furthermore, other children did not react to his initiations. Nevertheless, in the third observation sequence the evaluation by the raters changed: he was rated as being dominant. The analysis of this third sequence indicated that he did not interact with the same children as during the other observation sequences. This may be an indication of possible partner-effects. A child's behavior is also dependent on the behavior of his or her interaction partners. In fact, among other children, he frequently interacted with FC12, a socially withdrawn girl. She is probably at the lower end of the dominance hierarchy in the group. In sum, FC11 was victimized by aggressive and dominant children in the group, but when he changed his interaction partners, he also altered his behavior and was no longer a victim. This finding indicates that the individual behavior of a child only predisposes him or her to being victimized. The occurrence of victimization also depends on the presence of aggressive children and on the group structure per se.

10.6 Summary and Interpretation

Bullying seems to be a widespread phenomenon in kindergarten. More than one third of all children were actively involved. The percentage of victims and bullies more or less agrees with studies among school-age children (e.g. Rigby, 1996; Whitney & Smith, 1993; Olweus, 1978), but we identified many more bully-victims than other studies (e.g. Pellegrini et al., 1999; Olweus, 1978). The high percentage of children involved indicates that bullying in kindergarten is an everyday occurrence and should thus be considered as a serious problem. The observations revealed that in kindergarten negative behavior occurred very frequently. On average, negative interactions could be observed once every five minutes. This corresponds with observation studies among school children on the playground: Craig and Pepler (1995) were able to observe bullying occurrences every 7 minutes. As in kindergarten unguided play is the most frequent activity, the behavior of kindergarten children is comparable to school children's behavior on the playground. The high frequency of negative behaviors observed not only involved open aggressive attacks but also more subtle negative behaviors. Such subtle negative behavior patterns may be harmful to children, inasmuch as they are difficult to communicate and are thus seldom considered as being significant. This view corresponds with the finding that enduring adversity rather than specific stress leads to psychopathology (Schaffer, 1998).

Bullying in kindergarten does not only occur quite often, but it also directly affects many - or even all - children in the group. More than 75% of bullies or bully-victims had three or more targets or even victimized 'everybody' in the group. Moreover, bullying children not only attacked children identified as being victimized but also those children who were apparently not actively involved in bullying. Likewise, some victimized children were also attacked by 'everybody' or by children not identified as engaging in bullying. This was particularly true for boys. Possibly, certain peer group processes such as peer reputation (Olweus, 1978) contribute to the pattern whereby victims are targeted by many children or by children not usually actively involved in bullying.

Teachers as well as children reported mainly physical and verbal forms of bullying such as hitting or name calling. But not only direct but also indirect forms of bullying, such as exclusion or hiding objects, were widespread in kindergarten. This corresponds with studies among preschool children which revealed that indirect forms of victimization already occurred in preschool (Crick, Casas et al., 1999).

Not all bullying children displayed the same forms of bullying. Bullies preferred indirect and verbal forms, whereas bully-victims more often bullied by physical and object-related means. Bullies and bully-victims presumably not only display other forms of bullying, but they also target different children. As bullies seem to use aggression in an effective way (Pellegrini et al., 1999), I expected them to bully only weaker children. In contrast, bully-victims are disruptive and inattentive (Schwartz, 1995), which may indicate that they behave negatively toward many other children. Nevertheless, we found no differences between bullies and bully-victims in terms of the number nor in terms of the identity of the targets . As bully-victims do not only bully others, but are also victimized, they may be compared to victims. However, there emerged no differences regarding forms of victimization, nor in relation to the number or identity of perpetrators. Furthermore, observations revealed that bully-victims were a very heterogeneous group, some of them behaved more like bullies, whereas others behaved more like victims. Therefore, it might be necessary to investigate these children in more detail in future research.

Older children were more often identified as bullies, whereas younger children (at least the boys) were more often victimized. These findings correspond with the general assumption that age trends follow opportunities to dominate others (Whitney & Smith, 1993). Like in other studies (Olweus, 1991; Rigby, 1996; Whitney & Smith, 1993;

Boulton & Underwood, 1992), we found that children were mainly victimized by older or same-age children, but rarely by younger peers. An interesting age difference regarding forms of bullying emerged. Older children more often displayed indirect bullying such as exclusion, whereas younger children were more often excluded. On the one hand, older children have presumably a higher status in their peer group, and only children who are liked may exclude others. On the other hand, indirect forms of bullying require certain verbal and social skills which may be more present among older children.

Teachers rated boys as both engaging in bullying and as being victimized more frequently than girls. Likewise, peers more often nominated boys as being bullies. However, girls were categorized as victims as often as boys. This disagreement between the teacher rating and the categorization may partly be explained by the high percentage of boys categorized as bully-victims. These gender differences are in conformity with several studies which revealed that boys more often engage in bullying than girls (Olweus, 1991; Rigby, 1996; Whitney & Smith, 1994). On the other hand, only some studies found that boys were more often victimized than girls (Olweus, 1991; Rigby, 1996), whereas in other studies no gender differences emerged (Whitney & Smith, 1994).

Studies among school-age children revealed that boys more often display physical forms of aggression, whereas girls more often use indirect or relational aggression (Björkqivist, Lagerspetz et al., 1992; Olweus, 1991; Crick, Werner et al., 1999). We also found that boys more often bullied physically, but we could not verify that girls more often displayed indirect forms of bullying. Boys and girls excluded one another at the same rate. Boys not only more often displayed physical bullying, but were also more often physically victimized. This finding corresponds with other studies (Crick & Grotpeter, 1996; Rigby, 1996; Olweus, 1991). However, we did not find, as has been suggested by Olweus (1991) or Rigby (1996), that girls were more often victimized by indirect means. On the contrary, we found that boys were even more frequently excluded than girls. Furthermore, we partly replicated the finding that girls are often bullied by boys and girls, whereas boys are more often bullied only by other boys (Olweus, 1991; Boulton & Underwood, 1992; Rigby, 1996). We found that girls were bullied only by boys, only by girls, or by boys and girls, whereas boys were mainly bullied only by boys and never only by girls.

In sum, the power asymmetry inherent in occurrences of bullying could be demonstrated in terms of both age and gender of the perpetrator and the target, but also in terms of a differential use of certain forms of bullying.

In conclusion, statistical and observational results emphasize the significance of the interactional context of bullying. On the one hand, bullying is a negative interaction pattern between at least two individuals. We observed that a child may be a victim - or powerless - when he or she interacts with a bully. However, the behavior pattern changed as soon as the interaction partner altered. On the other hand, occurrences of bullying do not only involve children identified as being victimized or as engaging in bullying, but also the peer group. Many children were directly affected by occurrences of bullying, either as targets or perpetrators. Therefore, the peer group context is important to consider in order to investigate bullying and victimization in kindergarten.

11 Social Behavior Patterns of Children Involved in Bullying

In the following analyses I will examine whether there are any differences between bullies, bully-victims, victims, and non-involved children with respect to antisocial behavior, social skills, assertiveness, and withdrawal. As I expect age and gender differences, age group and gender will be included in the analyses.

   First, several multivariate analyses were performed followed by univariate analyses. Second, in order to establish mean differences, Bonferroni-tests[24] for multiple comparisons were performed.

11.1 Aggressive Behavior

To examine group differences, a $5 \times 2 \times 2$ (Bullying status $\times$ Gender $\times$ Age group) MANOVA was performed. Two subscales of aggressive behavior served as dependent variables: overt aggression and verbal/indirect aggression. Means (by bullying status) can be seen in Figure 11.1. Standard deviations and sample size are displayed in Table 11.1 and Table 11.2. The multivariate analysis revealed significant bullying status differences, *Hotelling's* $F(8, 570) = 44.11$, $p = .000$, as well as gender differences, *Hotelling's* $F(2, 286) = 16.14$, $p = .000$. Neither the main effect of age group nor interactions (Bullying status $\times$ Gender; Bullying status $\times$ Age group; Gender $\times$ Age group; Bullying status $\times$ Gender $\times$ Age group) were significant. Results of the univariate analyses and post-hoc tests are shown in the following sections.

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[24] The Bonferroni test, based on Student's t statistic, adjusts the observed level of significance for the fact that multiple comparisons are made. The Bonferroni-test is more powerful for the comparison of a small number of pairs (Howell, 1997). Therefore, Bonferroni was used for all subsequent post-hoc comparisons.
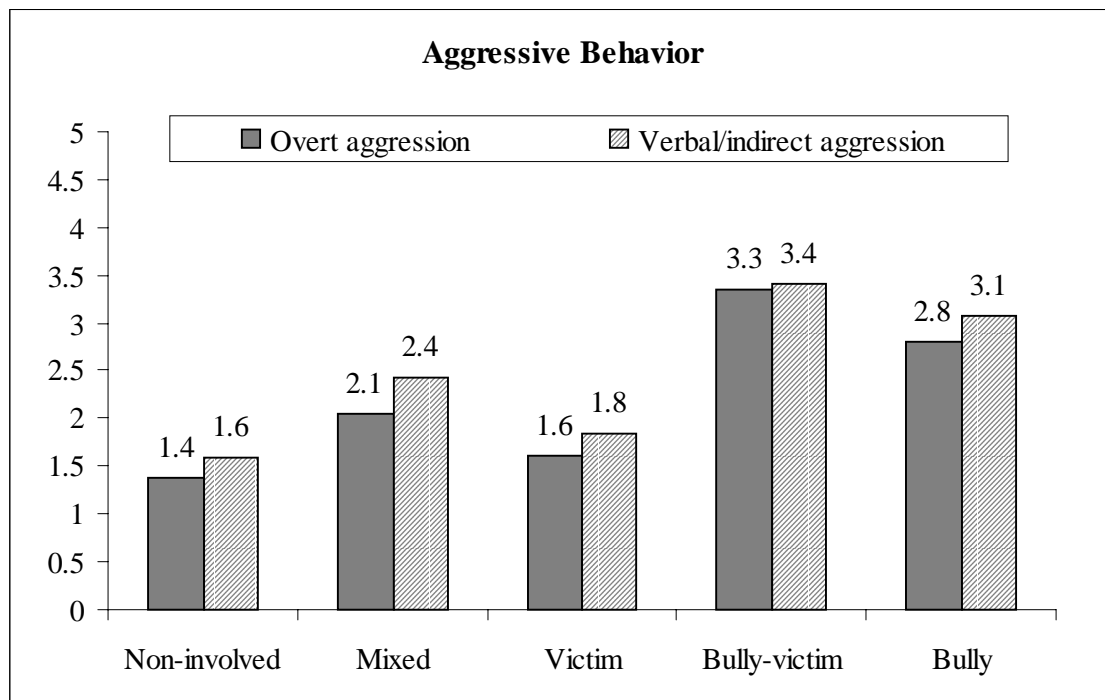
Figure 11.1: Mean teacher rating scores of antisocial behavior subscales by bullying status

11.1.1 Overt Aggression

The univariate analysis yielded a main effect of bullying status, $F(4, 285) = 75.37$, $p = .000$. Post hoc analyses revealed that bullies and bully-victims were more often overtly aggressive than all other children. Bully-victims were even more often overtly aggressive than bullies. Details are shown in Table 11.1. Boys were more often overtly aggressive than girls, ($M_{boys} = 2.21$, $SD = 1.00$, $n = 161$; $M_{girls} = 1.55$, $SD = 0.78$, $n = 144$), $F(1, 285) = 31.08$, $p = .000$.

Table 11.1: Differences in overt aggression between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	1.38	0.52	159	--	.000	1.000	.000	.000
Mixed	2.05	0.71	57		--	.085	.000	.000
Victim	1.62	0.64	21			--	.000	.000
Bully-victim	3.34	0.88	33				--	.008
Bully	2.81	0.96	35					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

11.1.2 Verbal/indirect aggression

The analysis revealed a main effect of bullying status, $F(4, 285) = 68.44$, $p = .000$. Post hoc analyses showed the same pattern as in overt aggression. As can be seen in Table 11.2, bullies and bully-victims were more often verbally and indirectly aggressive than all other children. Boys were also more verbally and indirectly aggressive than girls, ($M_{boys} = 2.35$, $SD = 0.96$, $n = 161$; $M_{girls} = 1.87$, $SD = 0.88$, $n = 144$); $F(4, 285) = 7.79$, $p = .006$.

Table 11.2: Differences in verbal/indirect aggression between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	1.58	0.57	159	--	.000	.945	.000	.000
Mixed	2.42	0.73	57		--	.009	.000	.000
Victim	1.84	0.75	21			--	.000	.000
Bully-victim	3.40	0.84	33				--	.401
Bully	3.07	0.82	35					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

Box 11.1:   Reactive versus Proactive Aggression

'A Closer View' 4
Reactive versus Proactive Aggression

Several studies found that bullies more often display proactive aggression, whereas bully-victims are more frequently aggressive in a reactive way (Pellegrini et al., 1999; Schwartz, 1995). We did not differentiate between proactive and reactive aggression in the teacher questionnaire. Therefore, we were not able to analyze this differentiation statistically. Nevertheless, the observations may give some insight into this difference.

We differentiated between negative initiations and responses. Negative initiations may be considered as proactive aggression, whereas negative responses may be conceived as reactive aggression. As described in Box 10.1, negative initiations of the focal child were significantly correlated with peers' and teacher's bullying scores. Moreover, negative responses of the focal child were only marginally positively correlated with peer nominations as being victimized. These findings partly confirm my expectations. Children who often bullied initiated negative interactions. This applied to bullies as well as bully-victims. However, children who were victimized (e.g. bully-victims) also often responded negatively.

The analysis of individual children's scores yielded a less consistent picture. Four children were categorized as bully-victims. The range of their negative initiations ranged from 15% to 36% (absolute: from 9 to 28 negative initiations). Likewise, the percentage of negative responses ranged from 0% to 26% (absolute: from 0 to 8 negative responses). The only bully we were able to observe initiated negative behaviors in 16% of his interactions (absolute: 15 negative initiations). Moreover, he had 7% of negative responses (absolute: 4 negative responses). The range of negative initiations or responses was too large to detect possible patterns. Thus, the observations did not give further insights into the differences between bullies and bully-victims in terms of proactive versus reactive aggression.

11.2 Social Skills

To examine group differences in social skills, a $5 \times 2 \times 2$ (Bullying status $\times$ Gender $\times$ Age group) MANOVA was performed. Three social skills subscales served as dependent variables: cooperativeness, sociability, and prosocial behavior. Figure 11.2 shows means (by bullying status). Standard deviations and sample size can be seen in Table 11.3, Table 11.4, Table 11.5, and Table 11.6.

The multivariate analysis yielded a significant main effect of bullying status, *Hotelling's* $F(12, 848) = 19.49$, $p = .000$. Furthermore, significant gender differences, *Hotelling's* $F(3, 284) = 5.55$, $p = .001$, and age differences, *Hotelling's* $F(3, 284)$

= 3.66, p = .013, emerged. Additionally, Bullying status × Age group interaction, *Hotelling's* F(12, 848) = 2.00, p = .022., and Bullying status × Gender interaction, *Hotelling's* F(12, 848) = 1.98, p = .023, were significant. However, Gender × Age group and Bullying status × Gender × Age group interactions were not significant.
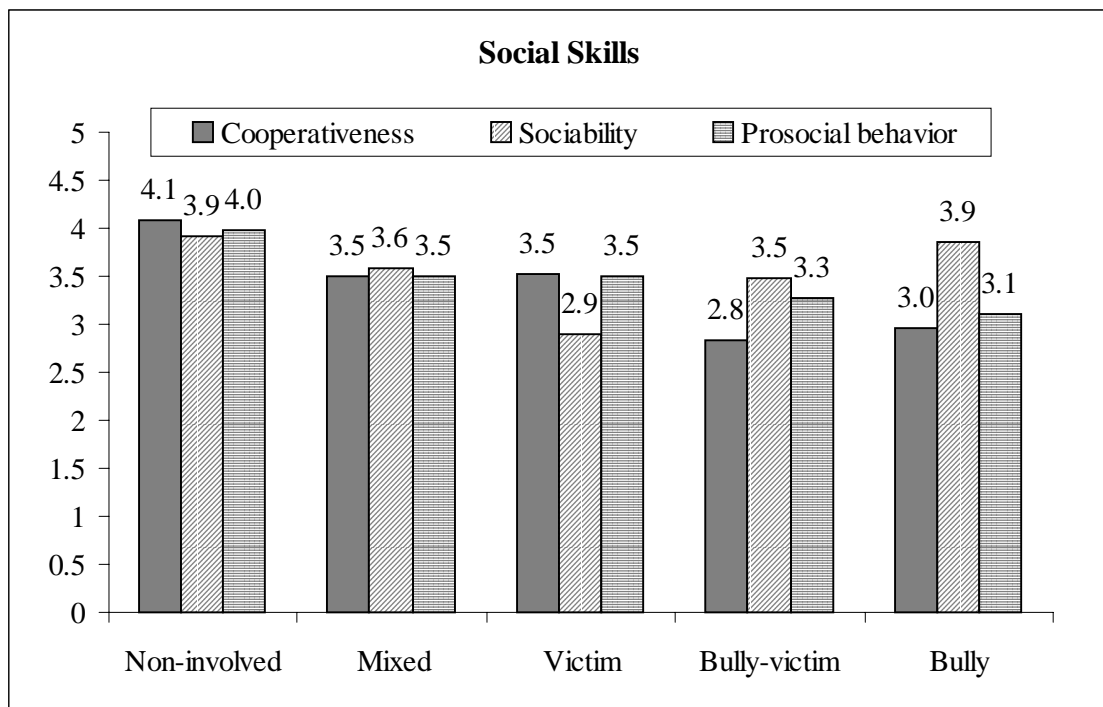
Figure 11.2:   Mean teacher rating scores of social skills subscales by bullying status

11.2.1   Cooperativeness

The analysis yielded a significant main effect of bullying status, F(4, 286) = 44.44, p = .000. As can be seen in Table 11.3 non-involved children were more cooperative than all other children, bully-victims and bullies were less cooperative than victims.

Table 11.3   Differences in cooperativeness between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	4.08	0.58	159	--	.000	.002	.000	.000
Mixed	3.49	0.60	57		--	1.000	.000	.002
Victim	3.53	0.57	21			--	.001	.008
Bully-victim	2.84	0.76	34				--	1.000
Bully	2.96	0.74	35					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

The main effect of gender was not significant ($M_{boys} = 3.57$, $SD = 0.82$, $n = 162$; $M_{girls} = 3.77$, $SD = 0.73$, $n = 144$). Older children were more cooperative than younger ones ($M_{older} = 3.74$, $SD = 0.80$, $n = 187$; $M_{younger} = 3.55$, $SD = 0.75$, $n = 119$), $F(1, 286) = 10.51$, $p = .001$. None of the interaction effects were significant.

11.2.2 Sociability

A significant main effect of bullying was obtained, $F(4, 286) = 6.90$, $p = .000$. Victims were less sociable than non-involved children, mixed, and bullies (see Table 11.4).

Table 11.4.   Differences in sociability between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	3.92	0.85	159	--	.117	.000	.073	1.000
Mixed	3.58	0.92	57		--	.027	1.000	1.000
Victim	2.90	0.94	21			--	.190	.001
Bully-victim	3.48	0.80	34				--	.773
Bully	3.85	0.94	35					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

Although the main effect of gender was not significant, ($M_{boys} = 3.62$, $SD = 0.92$, $n = 162$; $M_{girls} = 3.85$, $SD = 0.90$, $n = 144$), $F(1,286) = 3.82$; $p = .052$, there was a tendency for girls to be more sociable than boys. There was no main effect of age group ($M_{older} = 3.81$, $SD = 0.90$, $n = 187$; $M_{younger} = 3.59$, $SD = 0.93$, $n = 119$). Again, none of the interaction effects were significant.

11.2.3 Prosocial Behavior

The analysis revealed that girls were more prosocial than boys, ($M_{boys} = 3.49$, $SD = 0.83$, $n = 162$; $M_{girls} = 3.90$, $SD = 0.75$, $n = 144$), $F(1,286) = 11.61$; $p = .001$. Bullying status × Gender interaction was not significant.

  As a significant Bullying status × Age group interaction[25] effect emerged, $F(4, 289) = 3.47$, $p = .009$, follow-up analyses of simple effects (Howell, 1997) were performed. First, the effect of bullying status was tested for younger and older children separately. Bullying status had a significant main effect for younger as well as for older children (younger children: $F(4,115) = 7.46$; $p = .000$; older children: $F(4,184) = 10.52$; $p = .000$). Post-hoc analyses revealed that among younger children, non-involved children were more prosocial than mixed, victims, and bullies, but not more than bully-victims (see Table 11.5). In contrast, non-involved children of the older age group were more prosocial than bully-victims and bullies, but not more than victims (see Table 11.6).

  In addition, mixed children of the younger age group were less prosocial than older children, $F(1,32) = 1.96$, $p = .171$. However, no mean differences between older and younger bullies, bully-victims, victims, or non-involved children reached significance (see Figure 11.3).

Table 11.5:   Differences in prosocial behavior between bullying status groups: younger children

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	3.95	0.70	63	--	.003	.088	.770	.001
Mixed	3.24	0.69	24		--	1.000	1.000	.789
Victim	3.28	0.84	12			--	1.000	.850
Bully-victim	3.51	1.00	14				--	.154
Bully	2.67	0.43	7					--

 Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values
 (Bonferroni)

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[25] Overall main effect of bullying status: $F(4, 286) = 14.11$, $p = .000$
    Overall main effect of age group: $F(1, 286) = 6.32$, $p = .013$

Table 11.6:   Differences in prosocial behavior between bullying status groups: older children

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	4.03	0.72	97	--	.297.	1.000	.000	.000
Mixed	3.71	0.73	33		--	1.000	.050	.194
Victim	3.80	0.88	9			--	.212	.586
Bully-victim	3.11	0.68	20				--	1.000
Bully	3.27	0.82	30					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)
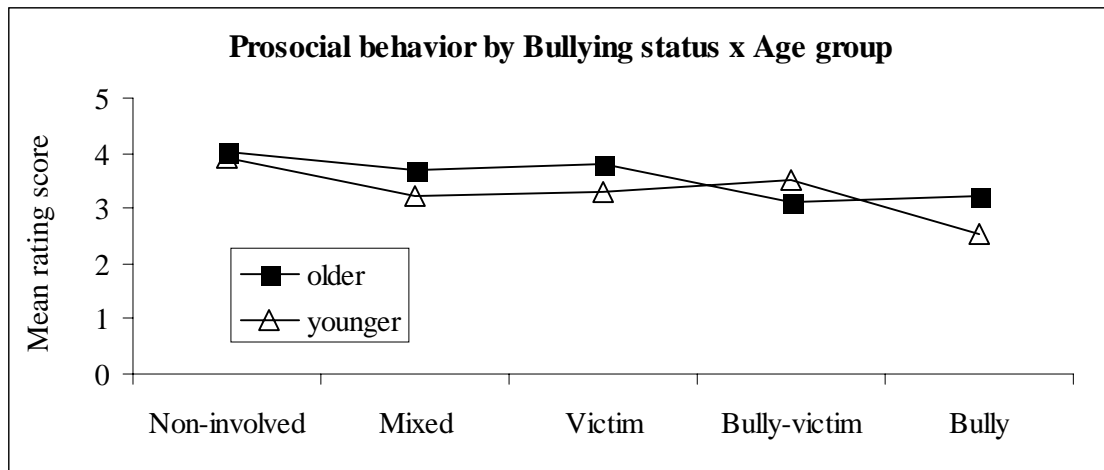
Figure 11.3:   Mean rating score on prosocial behavior by Bullying status $\times$ Age group

Box 11.2:   Social Skills of a Bully

'A Closer View' 5
Social Skills of a Bully

As we chose the children to be observed before the categorization procedure, we had only one bully as a focal child. In kindergarten 1 a boy (F14) was categorized as being a bully. According to the teacher he bullied once or several times per week physically, verbally, by exclusion, and by object-related means. Moreover, 16 children of his kindergarten nominated him as a bully. He bullied 'everybody' and several children admitted being afraid of him. The observers rated him as being dominant, having a high ability to set limits and as having bully-tendencies but no victim-tendencies. The observers' comments on his behavior were unequivocal. Both raters described him as being dominant and reckless. Despite this negative behavior pattern, his peers wanted to play with him.

F14 was quite well embedded in his kindergarten group. He had one reciprocal friend, and he nominated many children as his playmates. Furthermore, he was moderately liked by his peers. F14 was observed to be very socially active. Most of the time, he displayed interactive/parallel play or played alone, but he never displayed onlooker behavior. F14 interacted more frequently with peers than all other focal children. On average, the boy had 11.9 interactions with peers per 10-minute-interval ($M = 7.7$, $SD = 2.6$). Furthermore, he was rated as frequently interacting with his peers (*individual rating score* = 1.3; $M = 1.03$, $SD = 0.43$) and as being well integrated in his peer group (*individual rating score* = 0.00; $M = 0.86$, $SD = 0.65$). Most interactions were initiated by himself. Most of the time he interacted with the same boy. He was not very often negative toward his peers, 16% of his initiations (absolute: 15 initiations) and 7% of his reactions (absolute: 4 reactions) were negative. It is interesting to note that he never behaved negatively against the boy he played with most of the time, but that he initiated or reacted negatively toward eight different children in his group. Moreover, only 2 initiations and 2 reactions of peers were negative. This very low frequency of negative interactions of peers may indicate that peers were afraid of him and thus preferred to avoid getting into trouble with him.

In sum, the observations revealed that F14 was a sociable child who behaved negatively with impunity. Furthermore, the finding that he never behaved negatively toward his preferred playmate indicates that he was able to manage negative behaviors. He only targeted children whom he did not want to play with and those who did not fight back. Accordingly, he may thus be considered as being 'socially skilled'.

11.3 Assertiveness

To examine group differences in assertiveness, a $5 \times 2 \times 2$ (Bullying status $\times$ Gender $\times$ Age group) MANOVA was performed. The subscales leadership and setting limits served as dependent variables. Means (by bullying status) can be seen in Figure 11.4. Moreover, standard deviations and sample size are displayed in Table 11.7 and Table 11.8.

The multivariate analysis yielded a significant main effect of bullying status, *Hotelling's* $F(8, 570) = 5.56$, $p = .000$. Neither gender, age group, nor interactions reached significance.
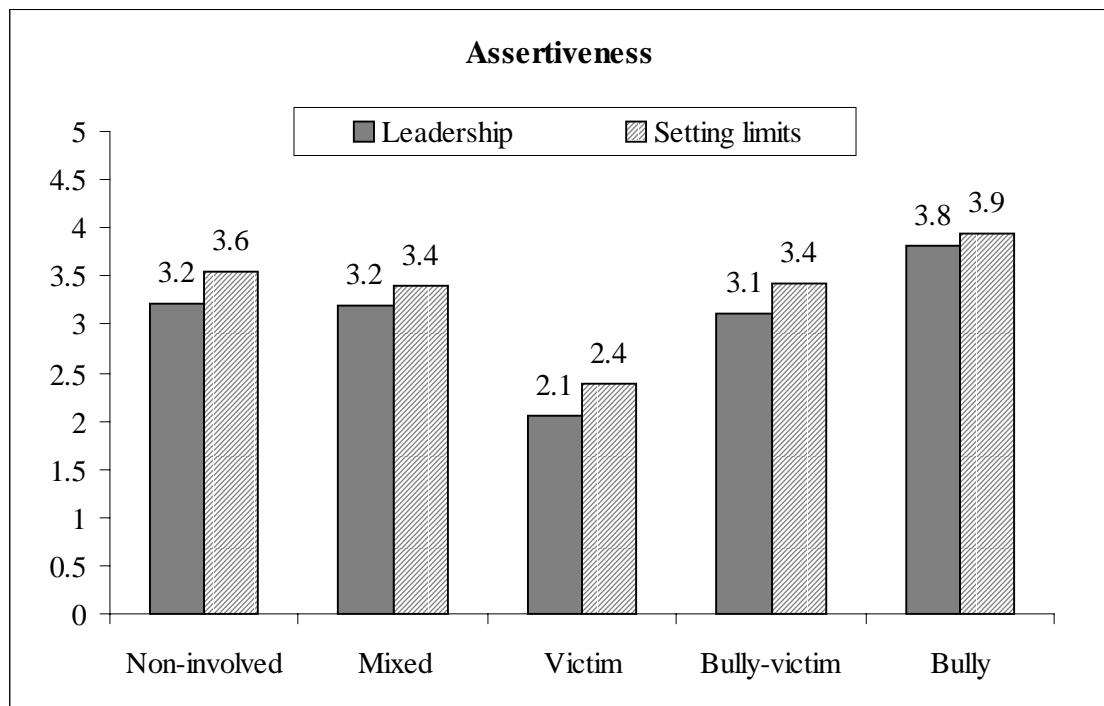
Figure 11.4:   Mean teacher rating scores of assertiveness subscales by bullying status

11.3.1 Leadership

A significant main effect of bullying status was obtained, $F(4, 287) = 8.24$, $p = .000$. Bullies had higher leadership skills than non-involved children and victims. Victims had the lowest scores on leadership (see Table 11.7).

Table 11.7:   Differences in leadership between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	3.21	1.11	159	--	1.000	.000	1.000	.029
Mixed	3.19	1.06	57		--	.000	1.000	.075
Victim	2.05	1.00	21			--	.004	.000
Bully-victim	3.12	1.12	34				--	.081
Bully	3.81	1.09	35					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

11.3.2 Setting Limits

The main effect of bullying status was significant, $F(4, 287) = 9.67$, $p = .000$. As expected, victims had problems to set limits toward their peers, they had lower scores than all other children. Table 11.8 provides the details of the multiple comparisons.

Table 11.8:   Differences in setting limits between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	3.55	0.95	159	--	1.000	.000	1.000	.196
Mixed	3.40	0.89	57		--	.000	1.000	.057
Victim	2.38	0.85	21			--	.000	.000
Bully-victim	3.43	0.92	34				--	.191
Bully	3.94	0.79	35					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

Box 11.3:   Setting limits and dominance as indicators for victimization or bullying

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'A Closer View' 6
Difficulties to Set Limits or Being Dominant -
Indicators for Victimization or Bullying?

Assertiveness is one of the major correlates of bullying and victimization. Assertive children who have the need to dominate others may become bullies, whereas lack of ability to set limits may predispose children to being victimized.

The coding of the observation records involved global ratings on dominance and setting limits. In addition, some of the items in the teacher questionnaire tapped the same dimensions of assertiveness. Teacher rating scores on setting limits and leadership and coders' ratings on the ability to set limits and dominance were highly correlated (see Table 11.9), thus, coders' ratings may be considered as being valid.

In fact, significant correlations emerged between some of the measures. Children who were observed as being dominant were more often nominated as bullies ($r = .75$, $p = .008$) and were rated by the observers as having bully-tendencies ($r = .75$, $p = .008$). Children who were rated by the teachers as being high on leadership or high on setting limits, were observed as having bully-tendencies ($r = .54$, $p = .09$; $r = .59$, $p = .07$ - only marginally significant). The results with regard to victimization were less clear (see Table 11.9). Probably, the observers had some difficulties to assess 'absent' behavior. It is easier to evaluate a child who can defend him- or herself. Moreover, we had only one victim as focal child and four bully-victims. And bully-victims do not necessarily have problems to set limits. In sum, being dominant is an observable form of behavior which might be used as an indicator for being a bully.

Table 11.9   Intercorrelations between various measures of dominance, setting limits, bullying and victimization

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Dominance (observer rating)	--	.42 (p = .19)	.59 (p = .06)	.52 (p = .10)	.75 (p < .01)	-.08 (p = .81)	.40 (p = .22)	-.13 (p = .70)	.75 (p < .01)	-.33 (p = .33)
2. Ability to set limits (observer rating)		--	.52 (p = .10)	.65 (p = .03)	.15 (p = .65)	.27 (p = .42)	.12 (p = .72)	-.49 (p = .13)	.46 (p = .16)	-.25 (p = .46)
3. Leadership (teacher rating)			--	.80 (p = .00)	.33 (p = .32)	.45 (p = .17)	.33 (p = .32)	-.15 (p = .67)	.54 (p = .09)	-.14 (p = .69)
4. Setting limits (teacher rating)				--	.37 (p = .26)	.20 (p = .56)	.39 (p = .23)	-.23 (p = .50)	.57 (p = .07)	-.43 (p = .18)
5. Bullying (peer nomination)					--	-.33 (p = .32)	.53 (p = .09)	-.14 (p = .67)	.59 (p = .05)	-.25 (p = .46)
6. Victimization (peer nomination)						--	-.19 (p = .59)	-.26 (p = .43)	.21 (p = .54)	.53 (p = .10)
7. Bullying (teacher rating)							--	.53 (p = .09)	-.05 (p = .89)	-.53 (p = .09)
8. Victimization (teacher rating)								--	-.56 (p = .07	-.21 (p = .53)
9. Bullying (observer rating)									--	.05 (p = .89)
10. Victimization (observer rating)										--

Note: Gray shaded cells show significant correlations (p < .05) (N = 11)

11.4 Withdrawal

A $5 \times 2 \times 2$ (Bullying status $\times$ Gender $\times$ Age group) MANOVA was performed to examine group differences with respect to withdrawing behavior. Introversion and isolation subscales served as dependent variables. Figure 11.5 shows mean values. Standard deviations and sample size (by bullying status) are displayed in Table 11.10 and Table 11.11.

The multivariate analysis yielded a significant bullying status effect, *Hotelling's* $F(8, 580) = 14.02$, $p = .000$. Moreover, the main effect of gender was significant, *Hotelling's* $F(2, 281) = 11.29$, $p = .000$. However, no age differences emerged and none of the interactions were significant.
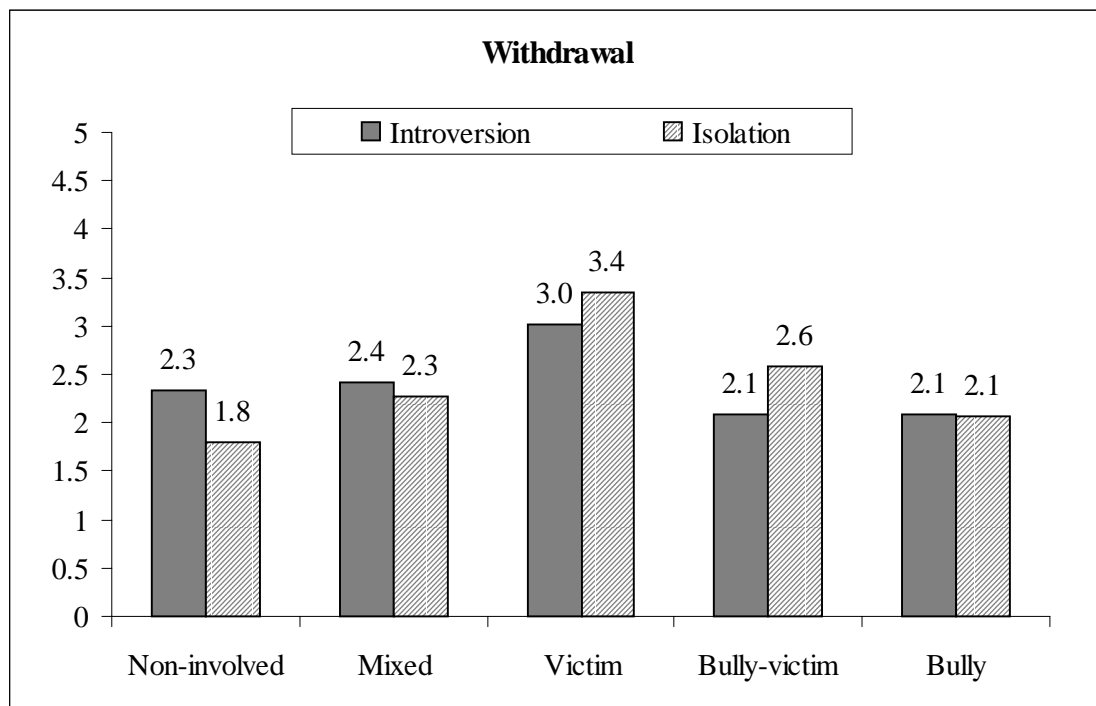

Figure 11.5:   Mean teacher rating scores of withdrawal subscales by bullying status

11.4.1   Introversion

The univariate analysis yielded a main effect of bullying status, $F(4, 282) = 6.07$, $p = .000$. Victims were the most introverted, they spend more time on their own than other children (see Table 11.10). Furthermore, boys were more introverted than girls,

($M_{boys} = 2.52$, $SD = 0.86$, $n = 158$; $M_{girls} = 2.16$, $SD = 0.76$, $n = 144$), $F(1, 282) = 18.33$, $p = .000$.

Table 11.10: Differences in introversion between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	2.33	0.80	158	--	1.000	.002	1.000	1.000
Mixed	2.42	0.81	57		--	.035	.590	.492
Victim	3.02	0.78	21			--	.000	.000
Bully-victim	2.10	0.79	33				--	1.000
Bully	2.08	0.92	33					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

11.4.2 Isolation

A significant main effect of bullying status was obtained, $F(4, 282) = 13.93$, $p = .000$. Similarly to the introversion scale, victims were more often isolated than all others. Interestingly, bully-victims were also more isolated than non-involved children (see Table 11.11). Boys were not more isolated than girls, ($M_{boys} = 2.23$, $SD = 1.09$, $n = 158$; $M_{girls} = 1.95$, $SD = 1.03$, $n = 144$).

Table 11.11: Differences in isolation between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	1.79	0.86	158	--	.019	.000	.000	1.000
Mixed	2.26	1.00	57		--	.000	1.000	1.000
Victim	3.36	1.17	21			--	.046	.000
Bully-victim	2.58	1.24	33				--	.337
Bully	2.06	1.16	33					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

Box 11.4:   Withdrawal or Victimization?

'A Closer View' 7
Withdrawal or Victimization?

Withdrawal and victimization are related constructs. On the one hand, exclusion may be a form of victimization. On the other hand, withdrawal may constitute the cause or the effect of victimization. Children may play alone due to different reasons, ranging from being shy to being actively isolated by peers (Asendorpf, 1990). The observations revealed some interesting findings regarding the difference between victimization and withdrawal.

The teacher rated one of the girls in the observation study (FC12) as being isolated once a week and as being excluded once a month. As she was not victimized at least once a week, she was categorized as 'mixed'. FC12 was neither nominated by peers as being a victim nor as being a bully. In fact, she was only nominated once in all peer nomination items. She was nominated by one of the girls as being her playmate. Nobody nominated her as 'being taken on the bus trip'. Probably, she tended to be overlooked. In sum, the girl was frequently alone, and the teacher perceived her as being excluded by others. The observations might shed light on the question whether she was actually victimized or only socially withdrawn.

Observations revealed that the girl showed very few interactions. No other focal child had a similarly low frequency of interactions. On average, the girl had 3.8 interactions with peers per 10-minute-interval ($M = 7.7$, $SD = 2.6$). Further, she was rated as having very few interactions (*individual rating score* = 0.25; $M = 1.03$, $SD = 0.43$) and as being isolated (*individual rating score* = 2.00; $M = 0.86$, $SD = 0.65$). Her preferred activity was doing handicrafts, often in the form of parallel play in the presence of other children. The content of her interactions was in most cases task-related such as whether somebody might give her scissors. The coders' final remarks all pointed in the same direction: the girl was socially withdrawn and ignored by others.

During 120 minutes of observation, the girl only once initiated a negative interaction, and only twice received negative initiations by others. No negative responses were observed. This may be an indication that the girl was not actively victimized. However, the girl was rated as having a weak tendency to be a victim and being powerless and as having problems in setting limits (*individual rating score* = 0.50; $M = 1.04$, $SD = 0.50$). If she is not yet a victim of peer aggression, her behavioral characteristics may predispose her to becoming victimized. Moreover, it remains unclear whether the girl is voluntarily alone, i.e. likes to play alone, or whether her behavior pattern observed is the product of a long history of negative experiences in peer groups.

11.5 Summary and Interpretation

The preceding analyses revealed that bullies, victims, and bully-victims displayed distinct social behavior patterns. As expected, bullies showed high levels of aggressive behavior, they were both overtly as well as verbally and indirectly aggressive. They were less cooperative and less prosocial than non-involved children, but they were very sociable. Observations also revealed that bullies are highly sociable. This result corresponds - at least partly - to the assumptions that not all bullying children lack social skills (Mize & Ladd, 1990; Sutton et al., 1999a, 1999b). Moreover, we observed that bullies may be able to manage their aggressive behaviors and only attack specific children, in that sense they may be considered as 'socially skilled'. Bullies had no problems to assert themselves, they could clearly set limits to peers, and they often had a leadership role in their group. Hawley (1999) proposed that in kindergarten prosocial and coercive means are both used in order to gain social dominance. The description of bullies confirms this view. On the one hand, bullies were aggressive. On the other hand, they were also leaders and were able to direct their peers according to their ideas in ways which were not only aggressive. Observations revealed that being dominant is an observable characteristic which may be used as an indicator for bullying. Furthermore, statistical analyses showed that bullies were neither introverted, nor actively isolated by their peers.

  Victims displayed exactly the opposite behavior pattern. They were not at all aggressive, neither overtly nor verbally or indirectly. In contrast to bullies, they scored high on cooperative behavior, and older victims were as prosocial as non-involved children. But victims had lower scores on sociability than most of the other children. As I expected, victims had great problems to assert themselves, they lacked leadership skills and could not set limits. The latter probably partly contributes to their victimization. Several studies established the relation between submissive social behavior and the emergence of chronic victimization by peers (Schwartz et al., 1993; Perry et. al., 1988; Patterson et al., 1967). Furthermore, victims seem to be lonely children. The statistical analyses confirmed our hypothesis that victims more frequently displayed withdrawing behavior than peers. On the one hand, they were introverted and frequently played (seemingly voluntarily) on their own; on the other hand, they were isolated by their peers. The observations revealed that not all socially withdrawn children were victimized by their peers. Nevertheless, withdrawing

behavior may be a precursor of being victimized or may even be a consequence of negative peer experiences.

Bully-victims showed a mixed behavior pattern. Most of their features corresponded with the social behavior of bullies. The remaining characteristics paralleled those of the victims. The statistical analyses confirmed our hypothesis that bully-victims were highly aggressive children, and that they were even more overtly aggressive than bullies. Furthermore, bully-victims also showed the same social skills pattern as the bullies. They scored lower on cooperativeness, and older bully-victims less frequently displayed prosocial behaviors than non-involved children. However, bully-victims were not less sociable than non-involved children. Neither did they have lower leadership skills than non-involved children, nor did they have problems in setting limits toward peers. They seemed to be able to defend themselves. This feature may be characteristic for their bully-victim status: when bully-victims are attacked by others, they possibly fight back. This behavior pattern may be described as reactive aggression (Crick & Dodge, 1996). The analysis of withdrawing behavior revealed an interesting difference between introversion and isolation. Bully-victims did not very often play on their own, i.e. they were not introverted. However, they were more often isolated than non-involved children and bullies.

In conclusion, we were able to establish distinct behavior patterns of bullies, bully-victims, and victims. Some of these social behaviors may predispose children to being victimized or to becoming bullies. Nevertheless, they only partly explain the emergence of bullying. On the one hand, we do not know whether the described behavior patterns in fact preceded bullying or whether they were consequences of being victimized. For example, withdrawing behavior may trigger being victimized or it may be a consequence of victimization experiences. Displaying aggression is clearly a precursor of being a bully, however, being a successful bully may even increase rates of aggression. On the other hand, there are processes in the peer group or social context which also contribute to being victimized. A child who displays submissive or withdrawing behavior is only victimized when there are aggressive children in the group. Moreover, aggressive behavior may only develop into bullying when the social context tolerates the repeated expression of those aggressive tendencies (Alsaker, 1997b).

12 Peer Relationships of Children Involved in Bullying

12.1 *Friendships*

As Bukowski & Hoza (1992) argued, friendships should be assessed in a hierarchical way. Accordingly, I differentiate between having at least one (best) friend (occurrence) as well as the number of friends.

12.1.1 Occurrence of (Best) Friendships

In order to examine group differences with respect to having friendships, two crosstabs were examined using χ^2-tests. Reciprocal *best friend* nominations, and reciprocal *friend* nomination*s* were used to compare various groups of children. Bullying status, gender, and age group served as grouping variables. Due to small cell sizes, the variables were tested individually.

Table 12.1:   Occurrence of best friendship by bullying status

Bullying status	Having no best friend	Having at least one best friend
Non-involved	101	55
Mixed	36	18
Victim	14	4
Bully-victim	22	12
Bully	22	15

Note: $\chi^2(4, N = 299) = 1.86$, p = .761

First, a 5×2 (Bullying status $\times$ Occurrence of best friends) χ^2-test was performed. As can be seen in Table 12.1, the effect of bullying status was not significant. Furthermore, a 2×2 (Gender $\times$ Occurrence of best friends) crosstab yielded no significant effect, $\chi^2(1, N = 331) = 1.12$, $p = .290$. However, younger children significantly less often had a best friend in the class than older children, $\chi^2(1, N = 331) = 5.81, p = .016$.

Table 12.2:   Occurrence of friendships by bullying status

Bullying status	Having no friends	Having at least one friend
Non-involved	31 (-1.6)	125 (1.0)
Mixed	18 (1.0)	36 (-0.6)
Victim	9 (1.9)	9 (-1.2)
Bully-victim	14 (1.7)	20 (-1.0)
Bully	7 (-0.9)	30 (0.5)

Note: χ^2(4, N = 299) = 14.80, p = .005 (Standardized residuals in brackets)

As can be seen in Table 12.2, victims and bully-victims had more often no friends than expected. Boys and girls did not differ with respect to having friendships, χ^2(1, N = 331) = 2.60, p = .107. However, older children were more likely to have at least one friend, χ^2(1, N = 331) = 19.16, p = .000.

12.1.2   Number of Friends

As only few children had more than one *best friend* in class, we will only analyze the number of *friends* (see Table 12.3). To assess group differences in the number of friends, a 5 × 2 × 2 (Bullying status × Gender × Age group) ANOVA was computed. The main effect of bullying status did not reach significance, $F(4,279)$ = 1.43, p = .226.

Table 12.3:   Descriptives of number of friends

Bullying status	M	SD	n
Non-involved	1.42	1.10	156
Mixed	1.31	1.24	54
Victim	0.78	1.00	18
Bully-victim	1.09	1.36	34
Bully	1.68	1.33	37

Older children had significantly more friends than the younger children. (M_{older} = 1.58, SD = 1.20, n = 185; $M_{younger}$ = 0.99, SD = 1.08, n = 114); $F(1,279)$ = 18.10; p = .000. Moreover, the main effect of gender was not significant. None of the four interaction effects reached significance.

12.2 Social Cluster Membership

In addition to self-reported social relationships, social clusters in the kindergarten group were identified by means of SCM-technique. This technique relies on peers' view. Thus, we have also information on children who did not participate in the child interview. First, it was established whether a child belong to *no*, *one*, or *two and more* social clusters. The 5 × 3 (Bullying status × Cluster membership) χ^2-test was not significant (see Table 12.4).

Table 12.4:   Membership in social clusters by bullying status

Bullying status	Member in no social cluster	Member in one social cluster	Member in two or more social clusters
Non-involved	16	130	14
Mixed	5	42	10
Victim	3	16	2
Bully-victim	6	23	6
Bully	5	26	6

Note: χ^2(4, N = 310) = 7.39, p = .496

In addition, two 2 × 3 (Gender × Cluster membership and Age group × Cluster membership) crosstabs were examined by means of χ^2-tests. No age effects emerged, but gender and being a member in no, one, or two clusters were related, χ^2(2, N = 343) = 10.95, *p* = .004. Cell frequencies and standardized residuals indicated that girls were more often in only one social cluster, whereas boys were more likely than girls to be members of two clusters. This result may indicate that girls have more stable relationships to other children than boys.

Furthermore, the size of the clusters was examined. Cluster size ranged between two and eight children. Children who were not members of a cluster were not included into this analysis. Descriptives are shown in Table 12.5 and Figure 12.1.
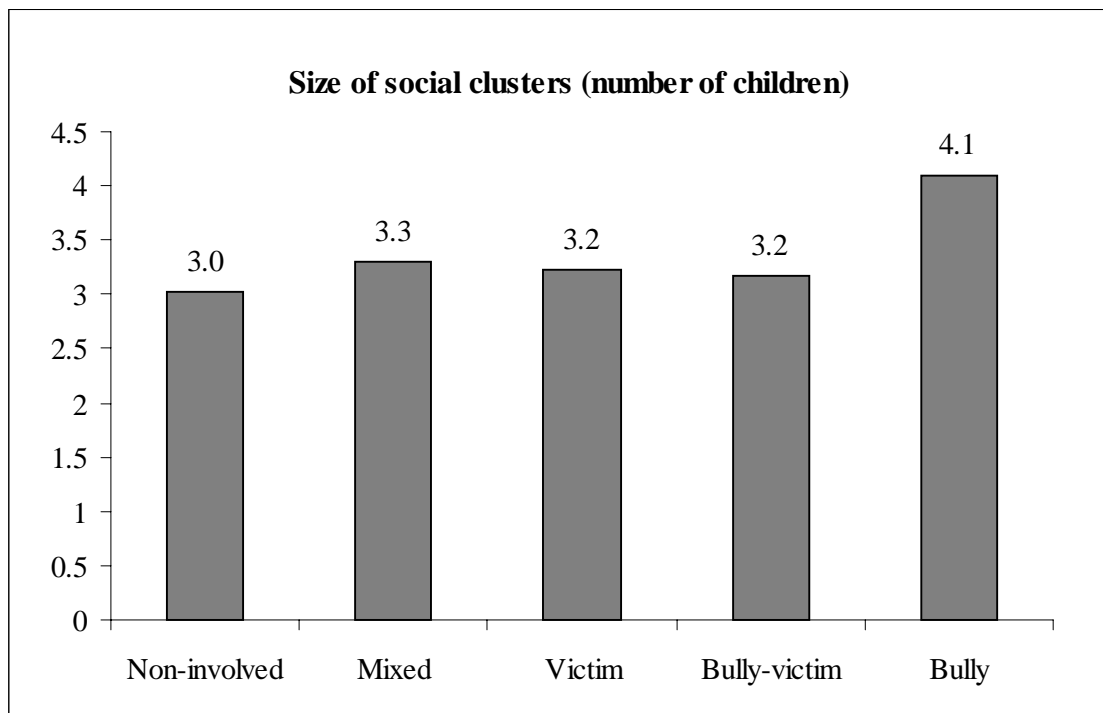
Figure 12.1:   Mean number of children in social clusters

To examine group differences with respect to cluster size, a $5 \times 2 \times 2$ (Bullying status $\times$ Gender $\times$ Age group) ANOVA was performed. The analysis revealed a main effect of bullying status, $F(4, 255) = 3.17$, $p = .015$. Post-hoc comparisons can be seen in Table 12.5. Bullies were members of significantly larger social clusters than non-involved children.

Moreover, the Gender $\times$ Age group interaction[26] was significant, $F(1, 275) = 4.71$, $p = .031$. Follow-up analyses indicated that older boys ($M = 3.57$; $SD = 1.46$, $n = 85$) were members of larger groups than younger boys ($M = 2.84$; $SD = 1.40$, $n = 57$; $F(1, 140) = 5.15$, $p = .025$) and older girls ($M = 3.10$; $SD = 1.20$, $n = 84$; $F(1, 167) = 8.53$, $p = .004$). The cluster size of younger girls ($M = 3.37$; $SD = 1.54$, $n = 49$) did not significantly differ from other groups.

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[26]   Neither the main effect of gender nor the main effect of age group was significant.

Table 12.5:   Differences in cluster size between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	3.03	1.24	144	--	1.000	1.000	1.000	.001
Mixed	3.31	1.34	52		--	1.000	1.000	.116
Victim	3.22	1.80	18			--	1.000	.326
Bully-victim	3.17	1.47	29				--	.096
Bully	4.09	1.69	32					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni).

12.3 Playmates and Friendships – Teacher Rating

In addition to children's view, teachers rated children on having a close friend *(best friend)* and finding easily friends, having lots of friends, maintaining friendships *(playmates).* To examine group differences a 5 × 2 × 2 (Bullying status × Gender × Age group) MANOVA was performed. The subscales playmates and best friend served as the dependent variables.

Means, standard deviations, and sample size (by bullying status) can be seen in Table 12.6, Table 12.7, and Figure 12.2. The multivariate analysis revealed significant bullying status differences, *Hotelling's F*(8, 568) = 6.76, *p* = .000, as well as gender differences, *Hotelling's F*(2, 285) = 3.38, *p* = .036. Neither main effect of age group nor interactions were significant.
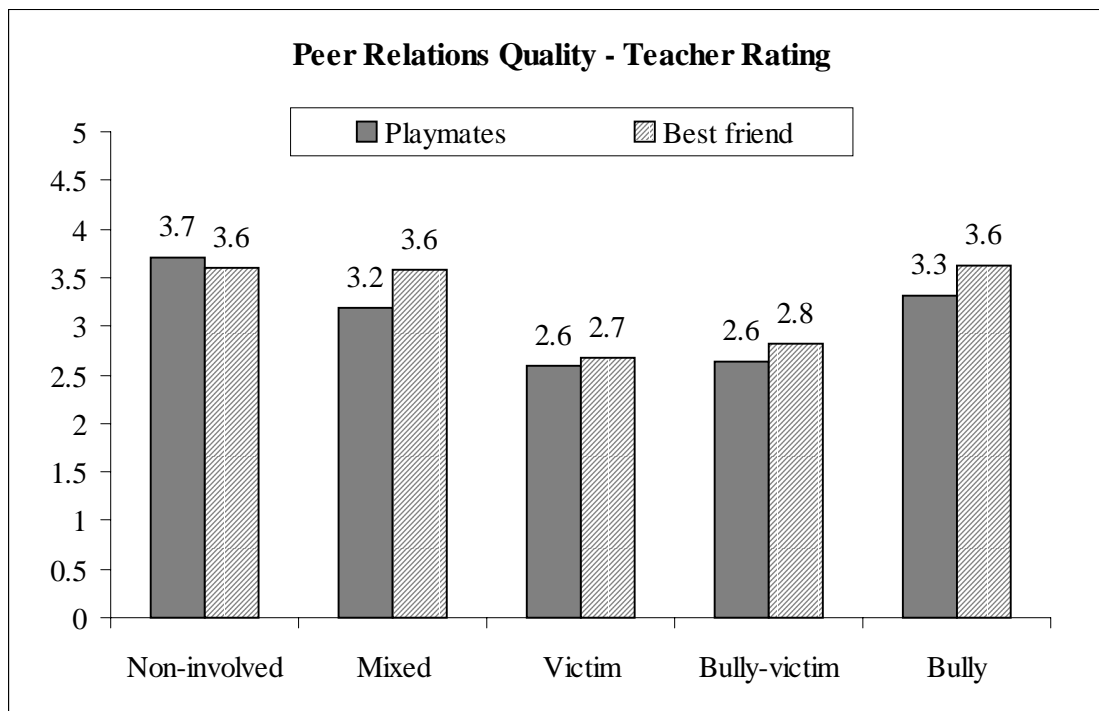
Figure 12.2:   Mean teacher rating scores on peer relations subscales: playmates and best friend

12.3.1   Playmates - Teacher Rating

The univariate analysis revealed a significant main effect of bullying status, $F(4, 287) = 11.89$, $p = .000$. Post hoc comparisons indicated that victims and bully-victims scored lower on the playmates scale than non-involved children. Bully-victims also scored lower than bullies (see Table 12.6). Furthermore, girls scored higher on playmates scale than boys, ($M_{boys} = 3.18$, $SD = 1.04$, $n = 163$; $M_{girls} = 3.58$, $SD = 1.02$, $n = 143$), $F(1, 286) = 5.37$, $p = .021$.

Table 12.6:   Differences in 'playmates' scores between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	3.70	0.92	160	--	.004	.000	.000	.312
Mixed	3.19	0.99	57		--	.208	.099	1.000
Victim	2.60	1.09	21			--	1.000	.075
Bully-victim	2.63	1.12	34				--	.034
Bully	3.31	0.96	35					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni).

12.3.2 Best friend - Teacher Rating

The analyses yielded a significant main effect of bullying status, $F(4, 286) = 4.04$, $p = .002$. As can be seen in Table 12.7, victims and bully-victims significantly less often had a close friend. The main effect of gender was not significant ($M_{boys} = 3.37$, $SD = 1.33$, $n = 163$; $M_{girls} = 3.53$, $SD = 1.33$, $n = 143$).

Table 12.7:   Differences in 'best friend' scores between bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	3.60	1.26	160	--	1.000	.021	.017	1.000
Mixed	3.58	1.21	57		--	.080	.102	1.000
Victim	2.67	1.35	21			--	1.000	.077
Bully-victim	2.82	1.51	34				--	.105
Bully	3.63	1.35	35					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni).

12.4 Children's Affiliation with Respect to Bullying Status

12.4.1   Friendships

In order to analyze children's affiliations regarding bullying status, friendship dyads were established. Percentages of the friendship dyads of the various bullying status constellations can be seen in Figure 12.3.

A 10×2 (Bullying status dyads $\times$ positive relationship) χ^2-test was performed in order to establish differences in the frequency of positive relationships in the various bullying status dyads, $\chi^2(df = 9, N = 6144) = 71.38$, $p = .000$. Standardized residuals[27] indicated that children of the same bullying status were more often friends than children of the opposing bullying status. Bully/Bully dyads, Others/Others dyads were more frequently friends than other constellations. In contrast, bully-victims and victims were less often involved in friendships with 'others'.

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[27]   Standardized residuals > 2 were taken as criteria

Percentage of friendship dyads
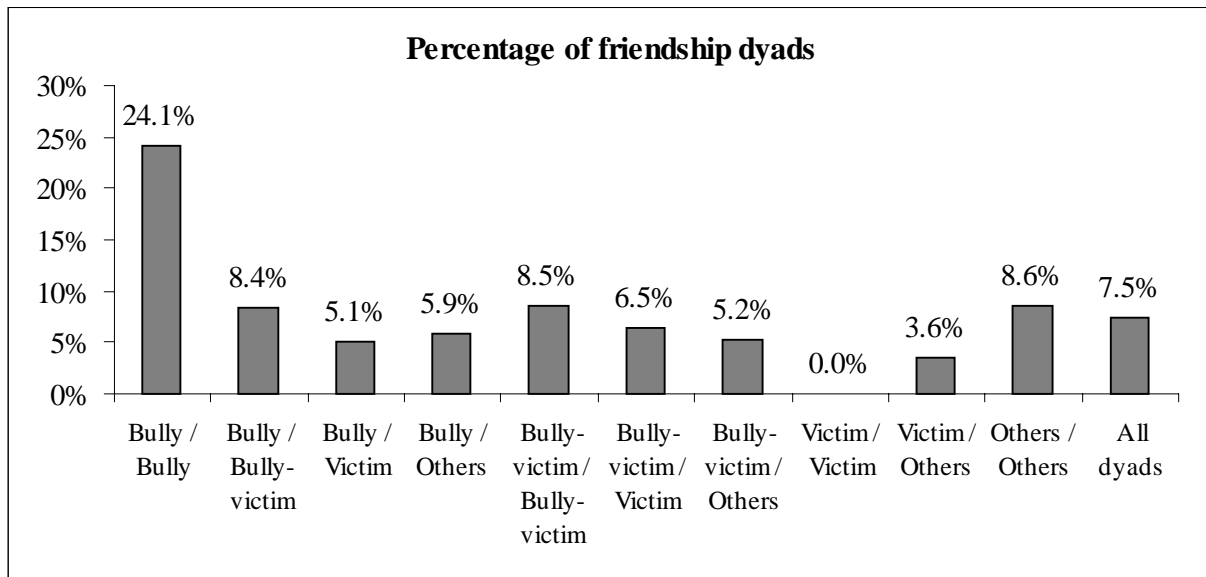
Figure 12.3:   Percentage of friendship dyads by bullying status constellation

In order to reduce the number of constellations, bullies and bully-victims were considered as 'aggressive', and all others as 'non-aggressive'. Thus, three types of dyads were differentiated: aggressive, mixed, and non-aggressive dyads. As can be seen in Figure 12.4, 14% of all friendship dyads may be considered as aggressive, whereas only 6% or 8%, respectively, were mixed or non-aggressive. This high percentage of aggressive friendship dyads particularly applied to boy-boy dyads.

Friendships of aggressive and non-aggressive dyads
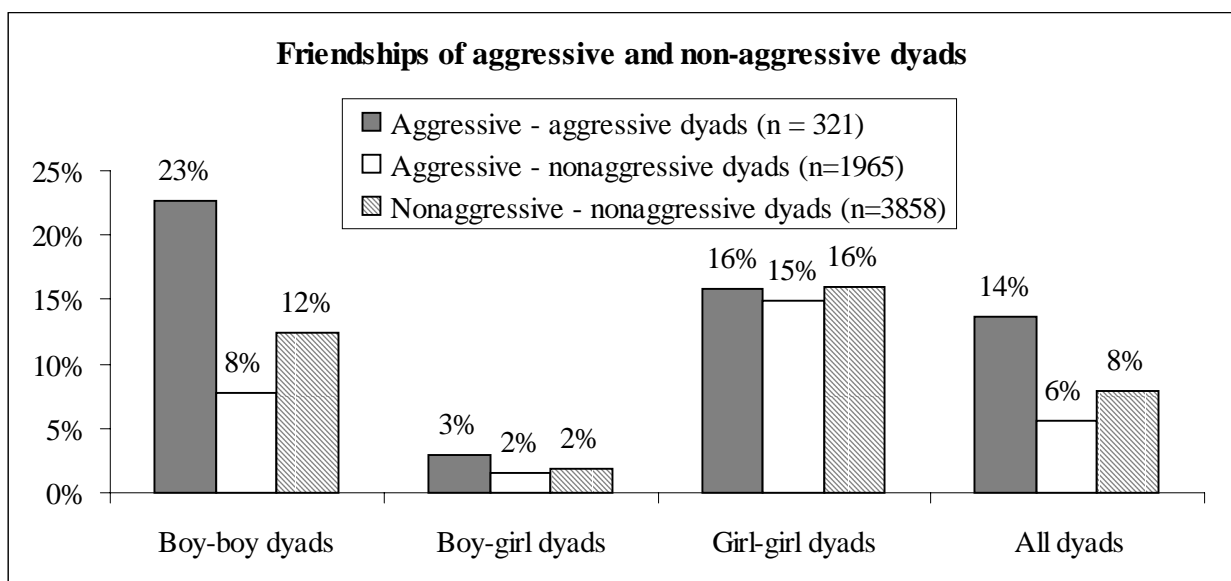
Figure 12.4:   Percentage of aggressive and non-aggressive friendship dyads by gender constellation

12.4.2 Cluster membership

Next, cluster membership of all possible bullying status constellations was established (see Figure 12.5). The 10×2 (Bullying status dyads $\times$ cluster membership) χ^2-test was significant, $\chi^2(9, N = 6434) = 124.41$, $p = .000$. Standardized residuals[28] indicated that aggressive children more often belonged to the same cluster than expected. Bullies and bully-victims (Bully/Bully dyads, Bully/Bully-victim dyads) frequently belonged to the same cluster, but were they less often in the same cluster with 'others' (Bully/Others dyads, Bully-victim/Others dyads).
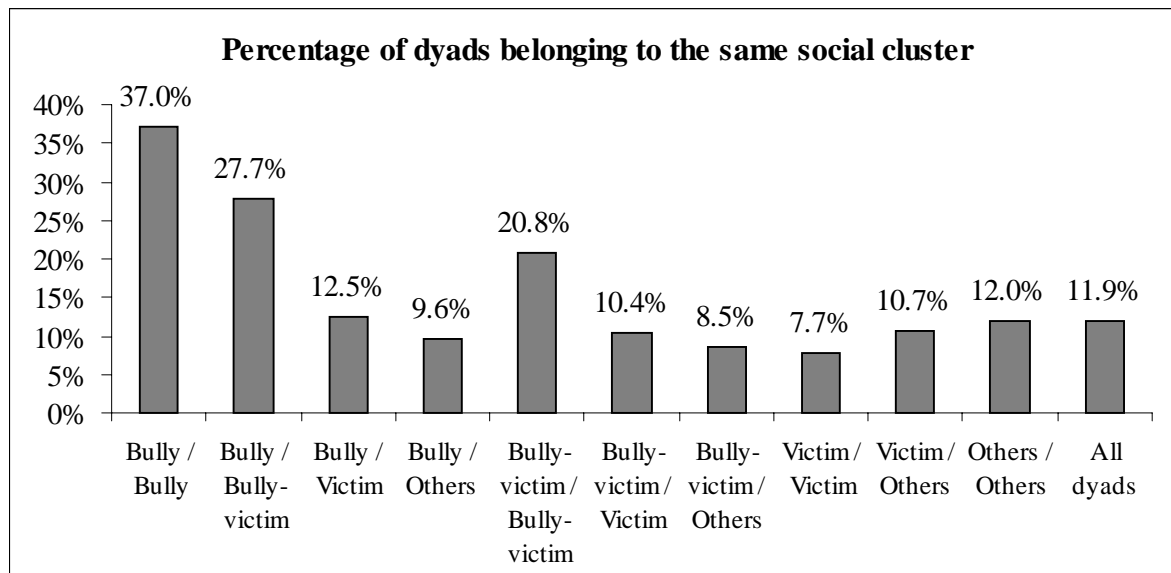
Figure 12.5:   Percentage of dyads belonging to the same cluster by bullying status constellation

   As can be seen Figure 12.5, 30% of aggressive dyads belonged to the same cluster, whereas only 9% or 12% of the mixed or non-aggressive dyads shared cluster membership. The percentage of cluster membership is particularly high among boy-boy dyads. 52% of all aggressive boy-boy dyads belonged to the same social cluster.

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[28]   Standardized residuals > 2 were taken as criteria
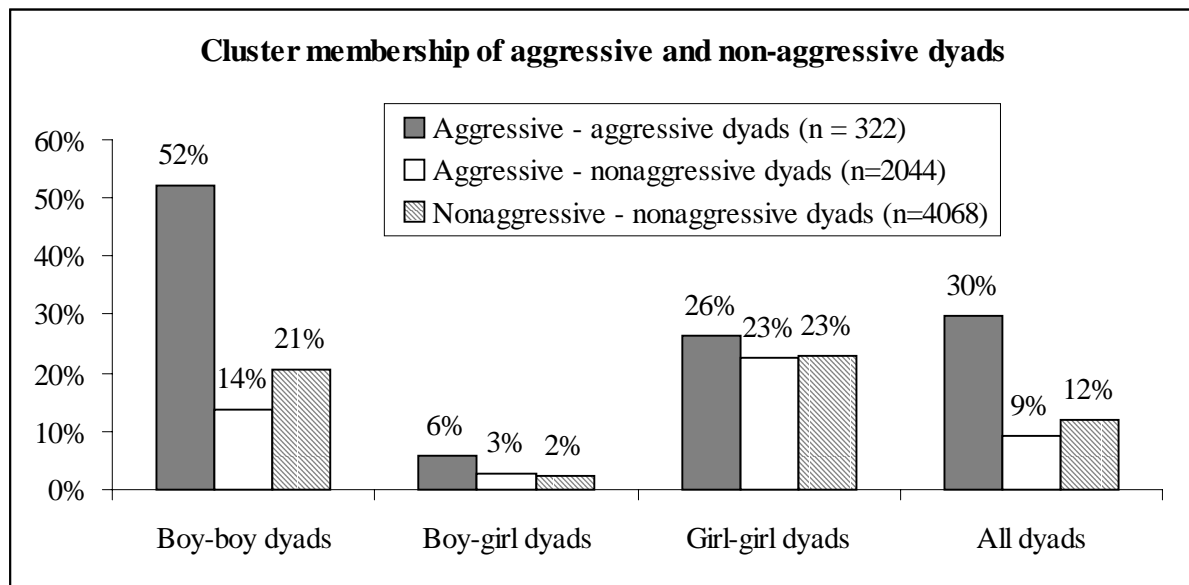
Figure 12.6:   Percentage of aggressive and non-aggressive dyads belonging to the same cluster by gender constellation

12.5 *Victimization within Friendships and Social Clusters*

12.5.1   Friendships between Perpetrators and Targets

In order to examine whether victimized children were also victimized by their friends, I analyzed negative interaction dyads. For children categorized as victims and bully-victims, it was established whether they were friends of their perpetrators (see Figure 12.7). Likewise, I established the number of friendships of bullying children (bully-victims and bullies) with their targets (see Figure 12.8).

The analyses revealed that most children were not victimized by their friends. However, 23% of victims or bully-victims were also victimized within their friendships. Likewise, 69% of bullies or bully-victims did not bully their friends. Nevertheless, in 31% of the cases at least one of their friends was also a target.

Friendships between victimized children and perpetrators

16%

7%

77%

- ■ Friendship to none of the perpetrators
- □ Friendship to all perpetrators
- ▨ Friendship to at least one perpetrator
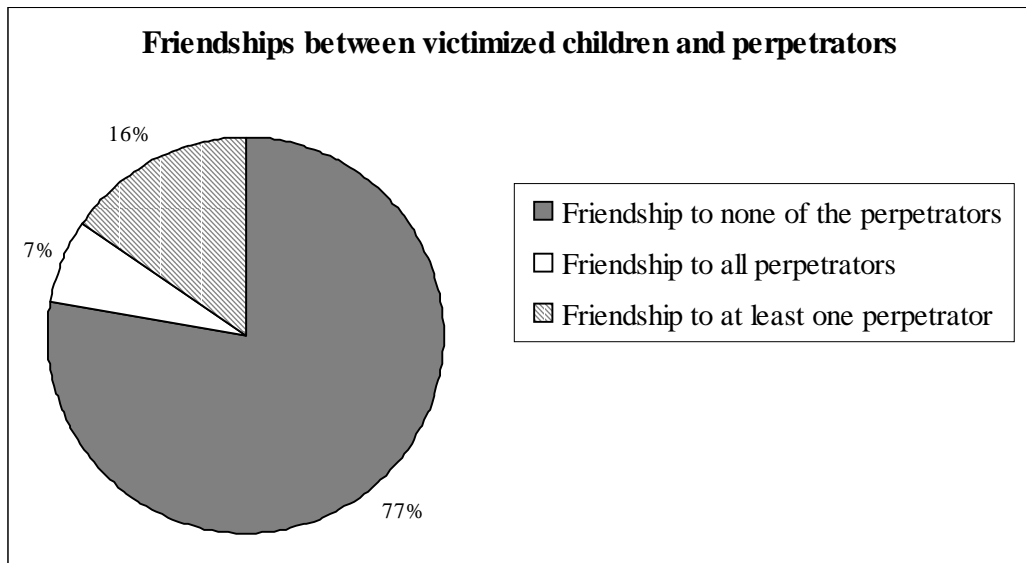
Figure 12.7: Friendships between victimized children and perpetrators
                  (percentage of victimized children, $N = 45$)

Friendships between bullying children and targets

28%

3%

69%

- ■ Friendship to none of the targets
- □ Friendship to all targets
- ▨ Friendship to at least one target
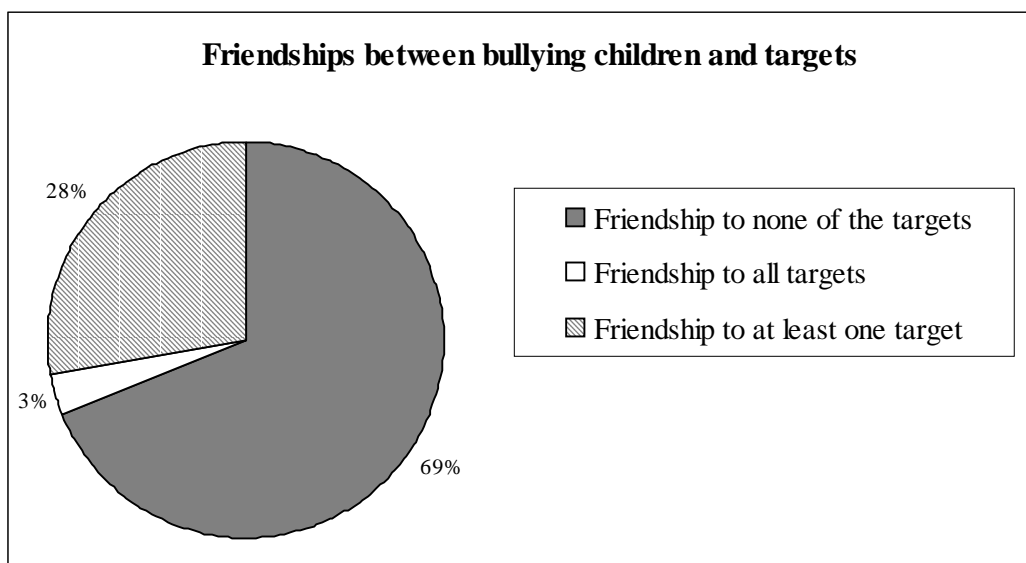
Figure 12.8: Friendships between bullying children and targets
                  (percentage of bullying children, $N = 61$)

12.5.2 Cluster Membership of Perpetrators and Targets

Next, I analyzed cluster membership of targets and perpetrators. Most of the
victimized children were bullied by children who did not belong to their social cluster.

Nevertheless, 41% of the victimized children belonged to the same social cluster as their perpetrators (see Figure 12.9). Likewise, as can be seen in Figure 12.10, 56% of the bullying children victimized children who belonged to the same social cluster.

Cluster membership of victimized children and perpetrators

24%
59%
17%

■ Shared cluster membership with none of the perpetrators
□ Shared cluster membership with all perpetrators
▨ Shared cluster membership with at least one perpetrators
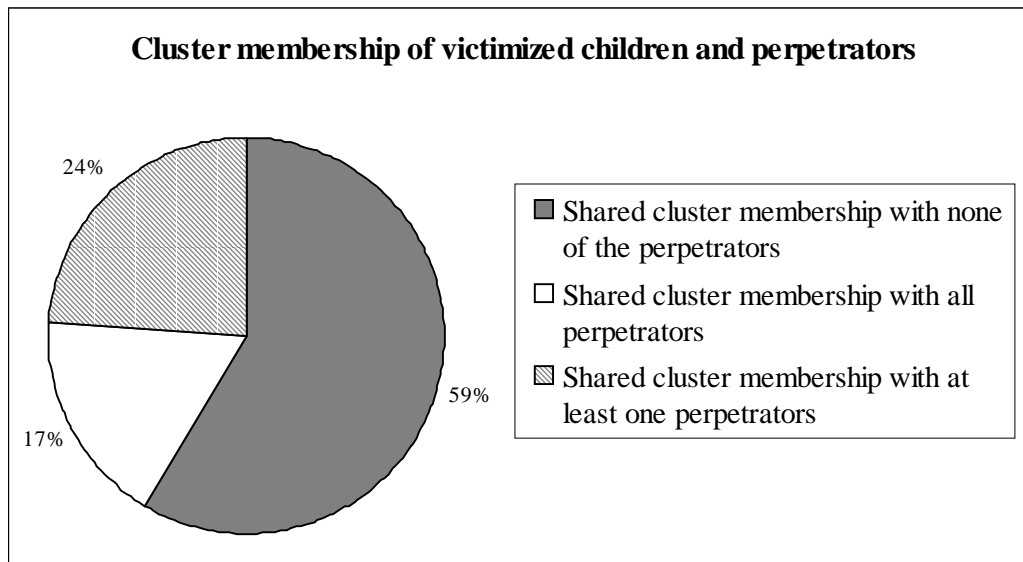
Figure 12.9:   Cluster membership of victimized children and perpetrators
                     (percentage of victimized children, $N = 46$)

Cluster membership of bullying children and targets

39%
46%
15%

■ Shared cluster membership with none of the targets
□ Shared cluster membership with all targets
▨ Shared cluster membership with at least one target

Figure 12.10: Cluster membership of bullying children and targets
                     (percentage of bullying children, $N = 62$)

12.6 Summary and Interpretation

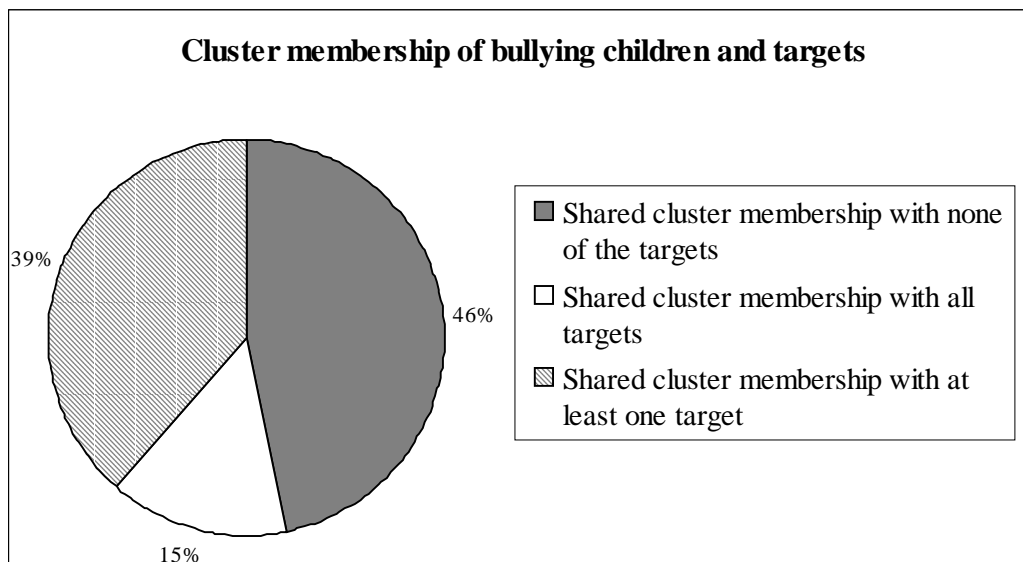The analyses revealed that victims and bully-victims lacked friends or playmates. I expected that victims and bully-victims had fewer reciprocal relationships than non-involved children. In fact, we found that victims and bully-victims were more likely to lack friends. Teachers also reported that victims and bully-victims less often had a best friend and had fewer playmates. These findings agree with studies among school-age children (Olweus, 1978; Rigby, 1996; Boulton & Underwood, 1992; Ray et al., 1997). Having no friends may thus be a social risk factor for being victimized. On the other hand, being victimized may also lead to a loss of friends as nobody wants to be the friend of a victim. I expected that some victimized children were also victimized within their friendships. In fact, nearly a quarter of victims and bully-victims were also bullied by their friends. Thus, friendships do not only have positive functions but may also include negative interaction patterns such as victimization.

  In contrast to victimized children, bullies were well embedded in their kindergarten group. The hypothesis that bullies did not have fewer friends than non-involved children was confirmed. Furthermore, bullies were members of larger social clusters. According to the teacher, bullies had more playmates than bully-victims. These findings correspond with studies which showed that bullies have larger friendship networks and that they do not lack friends (Huttunen & Salmivalli, 1996; Boulton, 1999; Cairns et al., 1988).

  Bullies did not only have many friends, they also tended to affiliate with other bullies, this was particularly true for boys. Moreover, bully-victims often belonged to the same social cluster as bullies or other bully-victims. Thus, my hypothesis that aggressive children affiliate was confirmed. The findings correspond with studies among school-age children which showed that behaviorally similar children cluster together (Pellegrini et al., 1999; Haselager et al., 1995). This affiliation of aggressive children might lead to an increase of bullying behavior as they adapt their behavior to each other (Dishion et al., 1994).

  In sum, these findings emphasize the significance of peer relationships for the emergence of bullying. On the one hand, victimized children's lack of friends might render them vulnerable, thus being prone to become easy targets. On the other hand, bullies seemed to be preferred playmates, particularly for other aggressive boys. In such social clusters, consisting of several aggressive children, aggression might become a group norm and bullying serve as a means of establishing dominance.

13 Social Status of Children Involved in Bullying

13.1 Social Preference – Peer Nominations

Children nominated peers as being taken on the bus trip. These nominations were conceived as social preference. Due to varying class sizes, nomination scores were transformed into percentages. To assess group differences with respect to nominations, a $5 \times 2 \times 2$ (Bullying status $\times$ Gender $\times$ Age group) ANOVA was computed. Mean percentages of social preference nominations are shown in Figure 13.1 (standard deviations and sample size in Table 13.1).

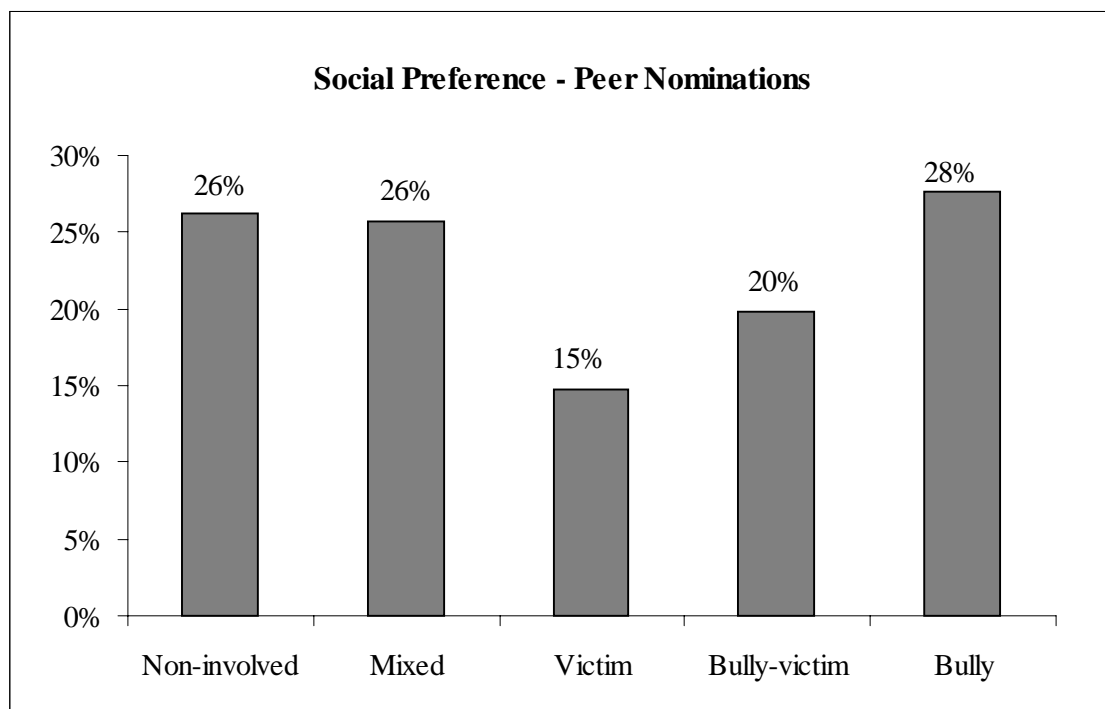Figure 13.1:   Mean peer nominations scores of social preference (percentages)

The analysis revealed a main effect of bullying status, $F(4, 290) = 2.54$, $p = .040$. Post hoc comparisons indicated that victims were less often taken on the bus trip than non-involved children. However, bully-victims and bullies did not score lower on social preference than non-involved children (see Table 13.1)

Table 13.1:   Differences in social preference nominations by bullying status groups

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	26.2	15.9	160	--	1.000	.014	.273	1.000
Mixed	25.7	15.3	57		--	.054	.771	1.000
Victim	14.8	14.0	21			--	1.000	.220
Bully-victim	19.9	16.6	35				--	.312
Bully	27.7	16.8	37					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

The main effect of gender was not significant ($M_{boys} = 23.3\%$, $SD = 16.2$, $n = 165$; $M_{girls} = 26.5\%$, $SD = 16.0$, $n = 145$). Yet older children scored higher on social preference than children of the younger age group ($M_{older} = 28.8\%$, $SD = 16.4$, $n = 189$; $M_{younger} = 18.6\%$, $SD = 13.7$, $n = 121$), $F(1, 290) = 27.39$, $p = .000$. The four interaction effects were not significant.

13.2 Acceptance - Teacher Rating

To examine group differences a $5 \times 2 \times 2$ (Bullying status $\times$ Gender $\times$ Age group) ANOVA was performed. Acceptance subscale served as the dependent variable. Mean scores by bullying status can be seen in Figure 13.2.
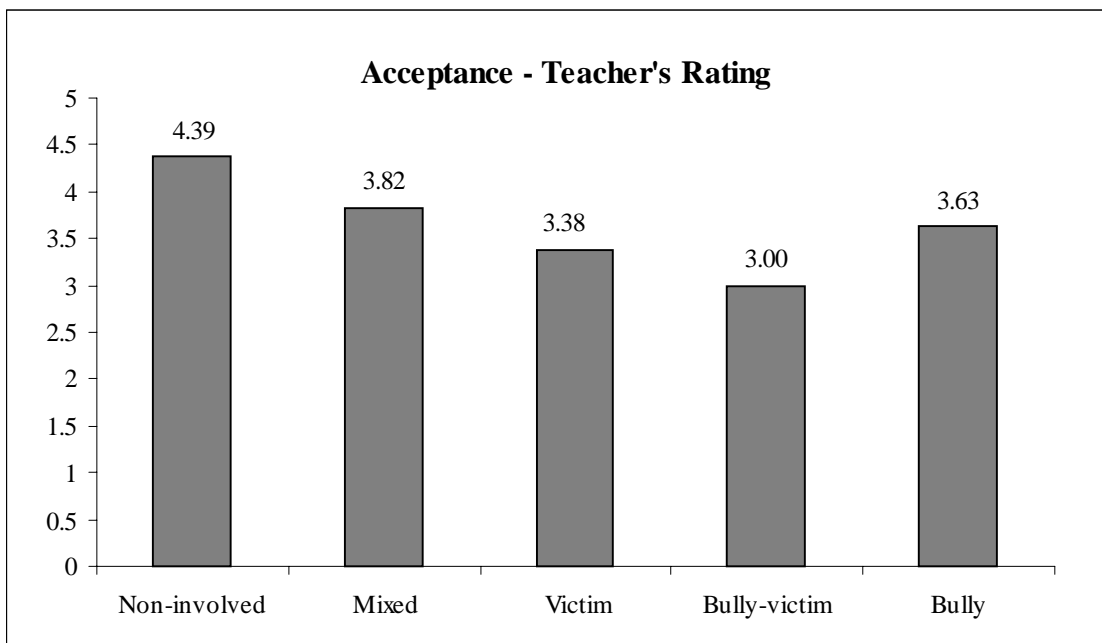

Figure 13.2:   Mean teacher rating score of acceptance

The Bullying status $\times$ Gender interaction[29] effect was significant, $F(4, 287) = 4.53$, $p = .001$. Thus, analyses of simple effects were performed. Bullying status effect was significant for boys as well as for girls (boys: $F(4,158) = 10.88$, $p = .000$; girls: $F(4,139) = 15.33$, $p = .000$). Multiple comparisons revealed that male bully-victims were less liked than non-involved boys, mixed, and victims. Non-involved boys were more liked than bullies but not more than male victims (see Table 13.2). Furthermore, non-involved girls were more liked than female victims, bully-victims, and bullies (see Table 13.3).

Additionally, non-involved girls were more liked than non-involved boys, $F(1,158) = 4.54$, $p = .035$. Likewise, girls with a mixed bullying status were more liked than mixed boys, $F(1,55) = 4.70$, $p = .035$. However, female victims were less liked than male victims, $F(1,19) = 5.97$, $p = .024$. No significant difference emerged between male and female bully-victims or bullies (see Figure 13.3).

Furthermore, older children were not more liked than children of the younger age group ($M_{older} = 4.02$, $SD = 0.97$, $n = 188$; $M_{younger} = 3.90$, $SD = 1.04$, $n = 119$). The three other interaction effects were non-significant.

Table 13.2:   Differences in acceptance between bullying status groups: boys

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	4.25	0.73	71	--	.007	1.000	.000	.013
Mixed	3.63	0.81	35		--	1.000	.048	1.000
Victim	3.91	1.04	11			--	.035	1.000
Bully-victim	2.96	1.11	23				--	.196
Bully	3.57	0.98	23					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values (Bonferroni)

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[29] Overall main effect of bullying status: $F(4, 287) = 22.56$, $p = .000$
   Overall main effect of gender was not significant.

Table 13.3:   Differences in acceptance between bullying status groups: girls

Bullying status	M	SD	n	Non-involved	Mixed	Victim	Bully-victim	Bully
Non-involved	4.49	0.69	89	--	.749	.000	.000	.045
Mixed	4.14	0.94	22		--	.001	.009	1.000
Victim	2.80	1.03	10			--	1.000	.090
Bully-victim	3.09	1.30	11				--	.616
Bully	3.75	0.99	12					--

Note: Shaded cells show significant differences (α-level = .05). Cells show exact p-values
(Bonferroni)
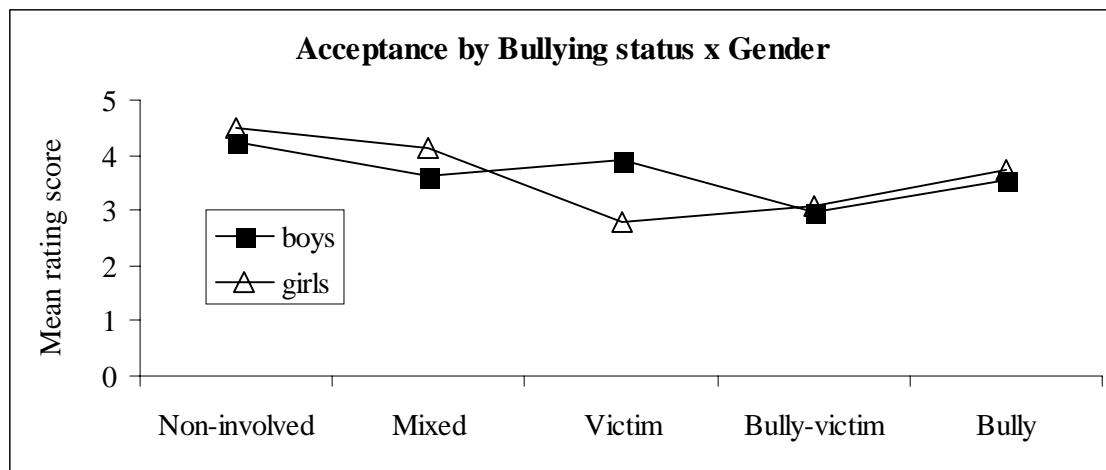
Figure 13.3:   Mean rating scores on acceptance by Bullying status $\times$ Gender

13.3 Centrality - Social Cluster Mapping

In addition to teacher rating and peer nominations, SCM-technique was used to assess
the children's centrality (nuclear, secondary, peripheral, or isolated). The centrality
measure is a composite of child status and cluster status (high, middle, low). Only few
children were classified as being of peripheral centrality ($n = 15$), or having low child
or cluster status ($n = 4$ or $n = 11$, respectively). Hence, secondary and peripheral
centrality (or middle and low status) were taken as one single category. Moreover, the
isolated status did not seem not be very valid (see method section). Thus, these
children were not included in the following analysis. Three different χ^2-tests were
performed: Bullying status $\times$ Centrality; Bullying status $\times$ Child status; Bullying status
$\times$ Cluster status.

Table 13.4: Centrality by bullying status

Bullying status	Nuclear	Secondary or peripheral
Non-involved	70 (-0.45)	74 (0.46)
Mixed	31 (0.84)	21 (-0.86)
Victim	3 (-2.05)	15 (2.10)
Bully-victim	17 (0.55)	12 (-0.57)
Bully	20 (0.89)	12 (-0.91)

Note: χ^2(4, N = 275) = 12.73, p = .013 (Standardized residuals in brackets)

Table 13.5: Cluster status by bullying status

Bullying status	High cluster status	Middle or low cluster status
Non-involved	88 (-0.33)	56 (0.43)
Mixed	36 (0.54)	16 (-0.71)
Victim	4 (-2.19)	14 (2.87)
Bully-victim	22 (0.85)	7 (-1.12)
Bully	24 (0.83)	8 (-1.09)

Note: χ^2(4, N = 275) = 18.1, p = .001 (Standardized residuals in brackets)

Table 13.6: Child status by bullying status

Bullying status	High child status	Middle or low child status
Non-involved	114	30
Mixed	45	7
Victim	14	4
Bully-victim	23	6
Bully	27	5

Note: χ^2(4, N = 275) = 1.77, p = .778

Bullying status was significantly related to centrality (Table 13.4), to group status (Table 13.5), but not to child status (Table 13.6). Cell means indicated that victims more often belonged to middle or low status groups and more often had secondary or peripheral centrality.

Additionally, gender and age group differences were examined. Gender was neither significantly related to centrality, child status nor to cluster status. However, significant differences between younger and older children with respect to centrality

and cluster status emerged. Older children were more likely to belong to high status clusters and to have nuclear centrality (centrality: $\chi^2(1, N = 307) = 14.81$, $p = .000$; cluster status: $\chi^2(1, N = 307) = 14.02$, $p = .000$). Moreover, younger children had a tendency to have more often a middle or low child status (child status: $\chi^2(1, N = 307) = 3.57$, $p = .059$).

13.4 Summary and Interpretation

The analyses revealed that victims and bully-victims had a lower social status than non-involved children. Thus, my hypothesis was confirmed. Bully-victims and female victims were rated by the teachers as not being liked. Similarly, victims were less often nominated by others as being taken on the bus. Furthermore, victims frequently had secondary or peripheral centrality and belonged to middle or low status groups. Thus, not only a child's own social status seemed to be relevant, but also the status of the cluster a child belonged to. It is interesting to note that bully-victims were not less socially preferred than non-involved children. As we did not assess negative nominations, we were not able to establish disliking. It is probable that these children would receive many negative nominations (Smith et al., 1993; Boulton & Smith, 1994).

In contrast to bully-victims and victims, bullies had a high social status in the kindergarten group. Bullies were not less socially preferred and did not less frequently have nuclear centrality than non-involved children. Thus, we may conclude: 'Bullies are cool!' Teachers rated bullies as being less liked than non-involved children but they did not receive fewer positive peer nominations than non-involved. This finding may indicate that in fact bullies were not *liked by most children in the group,* but that they were liked by their friends.

Nevertheless, the disagreement between the teacher's and the peers' perception indicates that teachers possibly underestimated the social status of children who are aggressive (bullies and bully-victims). My impression was that the teachers expected that aggression leads to disliking. Furthermore, teachers rated only female victims as being less liked than non-involved children. Due to the behavioral characteristics - (withdrawn, non-aggressive, well-adjusted, and prosocial) of victims, teachers may perceive male victims as being 'cute'. Consequently, it is possible that teacher's liking or disliking of specific children biased their judgements.

These results indicate that social status plays an important role in bullying. Bullies as well as bully-victims are aggressive children, but only bully-victims - i.e. children who were badly embedded in the group - were victimized. One explanation for this finding could be that low social status is presumably a prerequisite of victimization. Only children who are badly embedded in the kindergarten group are vulnerable to being victimized. A contrasting explanation is that children who are victimized by others lose their status within the group.

The question arises why only some aggressive children were not liked by their peers. Possibly, they possess distinct behavioral characteristics which influenced their social status. The results regarding distinct social behavior patterns of bullies and bully-victims indicate that the type of aggression displayed might be relevant. Bully-victims more often displayed overt aggression, as well as overt and object-related bullying, whereas bullies preferred verbal and indirect forms of aggression and bullying. It is possible that bully-victims have little self-control and disturb the whole group which may lead to their disliking. In fact, bully-victims were found to have attention problems (see Alsaker & Valkanover, 2000).

As presented above, bullies and bully-victims tended to affiliate. Thus, we can only partly confirm the assumption made by Dishion et al. (1994) that aggressive children are friends because they are rejected by their peer group. Not all children who bully (bullies and bully-victims) had a low social status or a limited number of friends. Thus, it is more likely that they cluster together due to their behavioral similarity (Cairns & Cairns, 1991).

In sum, social status seems to be a relevant social context variable with respect to bullying. On the one hand, low social status may be a social risk factor for victimization. On the other hand, bullies' high social status may lead to a vicious circle of bullying. Bullies are powerful and this makes them interesting and attractive. By being popular, they get support for their behavior, and they easily become leaders of their group and may continue bullying their peers.

14 Individual and Social Risk of Victimization

In order to integrate individual and social risk variables, I performed regression analyses. To be consistent with the preceding analyses, being victimized was conceived as a dichotomous variable. Thus, logistic regressions were conducted (Hosmer & Lemeshow, 1989). Being a victim or bully-victim served as the dependent variable. Because victims and bully-victims assumedly have different pathways to victimization, two separate analyses were performed. Non-involved children served as the comparison group for victims. Bullies as well as bully-victims victimize other children - they are aggressive - but only bully-victims become victimized themselves. Thus, bullies constitute the comparison group for bully-victims.

Submissiveness[30] and withdrawal, as well as verbal/indirect and overt aggressive behaviors were taken as individual risk variables. Friendship and social status served as social risk variables. Both friendship measures were dichotomous variables: *having a best friend* as well as *having no friends*. As having a best friend and having friends represent different social situations, both measures were included in the analyses. Further, a combined social status measure consisting of three levels was created. The combination of teacher's and peers' social status measures was used to build a new variable. First, the continuous variables of *acceptance* and *social preference* were standardized. These z-scores were used to assign low, average, or high social status (cut-off point: $z = \pm .5$). Finally, children having a low social status according to their peers' <u>and</u> teacher's view, were assigned *low social status*. Likewise, children having a high social status by their peers <u>and</u> their teacher, were considered to have a *high social status*. All others have an *average social status*. This new variable consisting of three levels facilitates the interpretation of interaction effects.

In order to investigate the moderating function of the social risk variables they were entered as an interaction term (product term) (Baron & Kenny, 1986). To perform

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[30] *Submissiveness* is the inverse of the subscale *Setting limits*

logistic regressions involving interaction terms, transformations of variables were necessary: all continuous variables were collapsed[31] and centered around the mean[32].

Three different models seemed to be possible: (a) only behavioral vulnerabilities contribute to being victimized (simple model), (b) behavioral vulnerabilities and social risk variables have additive effects on being victimized (additive model), and (c) individual and social risk interact (complex model). Thus, three different models were tested for bully-victims and for victims.

Table 14.1:   Three different logistic regression models

Model	Variables
Model 1 (simple)	Individual risk (Submissiveness, Introversion, Overt aggression, or Verbal/indirect aggression)
Model 2 (additive)	Individual risk plus social risk (Social status, Having no friends, or Having a best friend)
Model 3 (complex)	Individual risk plus social risk plus individual risk × social risk

Table 14.2 presents intercorrelations between victimization, individual and social risk variables as well as age and gender for the whole sample (non-involved children, bullies, bully-victims, and victims).

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[31]   In logistic regressions, single variable scores (i.e. categories which occur only once) should be avoided. Therefore, scores of the social behavior scales were collapsed. For example, values ranging from 1.75 to 2.25 were collapsed to the value 2. Thus, the final scales consist of a maximum of 9 categories.

[32]   According to Aiken and West (1991), it is necessary to center variables in order to test and interpret interactions in multiple regression. Therefore, all continuous variables were centered around the mean, i.e. the mean score was subtracted from each individual score. Thus, the value zero represents the group mean.

Table 14.2: Intercorrelations between victimization, individual and social risk variables (whole sample, N = 294)

Subscales	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. **Being victimized** (= 1)	--	-.07	-.10	.21	.05	.40	.35	.18	-.03	.32
2. Age		--	.01	-.19	-.10	.07	.10	-.27	.17	-.17
3. Gender (girls = 1)			--	-.10	-.21	-.33	-.24	-.12	-.05	-.17
4. Submissiveness				--	.54	-.04	-.13	.11	-.14	.33
5. Introversion					--	.01	-.06	.16	-.12	.29
6. Overt aggression						--	.82	.16	-.03	.39
7. Verbal/indirect aggression							--	.09	-.03	.33
8. Having no friends (= 1)								--	-.38	.27
9. Having a best friend (= 1)									--	-.15
10. Social status (1 = low, 0 = average, -1 = high)										--

Note: Gray shaded cells indicate significant correlations (p < .05)

14.1 Predictors of Being a Victim

Victims were compared to non-involved children. As these children were per definition non-aggressive, aggressive behaviors did not serve as independent variables.

Table 14.3: Intercorrelations between victimization, individual and social risk variables (sample without bullies, bully-victims, and mixed, N = 171)

Measures	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. **Being a victim** (= 1)	--	-.14	-.08	.36	.24	.16	.14	.22	-.08	.28
2. Age		--	.12	-.21	-.07	-.09	-.01	-.30	.19	-.17
3. Gender (girls = 1)			--	-.09	-.25	-.35	-.21	-.09	-.03	-.13
4. Submissiveness				--	.64	.05	-.01	.16	-.20	.35
5. Introversion					--	.18	.08	.19	-.10	.27
6. Overt aggression						--	.64	.18	-.12	.30
7. Verbal/indirect aggression							--	.08	-.08	.33
8. Having no friends (= 1)								--	-.36	.16
9. Having a best friend (= 1)									--	-.16
10. Social status (1 = low, 0 = average, -1 = high)										--

Note: Gray shaded cells indicate significant correlations (p > .05)

14.1.1 Lack of Friendships as Social Risk

Several logistic regressions were performed to analyze the relation between individual risk (submissiveness and withdrawal), social risk (having no friends, having no best friend), and being a victim. In order to facilitate the interpretation of the results, only two variables were entered into each statistical analysis[33].

First, submissiveness and having no friends served as independent variables.

Table 14.4:   Submissiveness × Having no friends as predictors of being a victim ($N = 174$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	21.74 (1)	.000	Submissiveness	1.24	16.94	.000	3.46
Model 2	4.26 (1)	.039	Submissiveness	1.19	14.93	.000	3.30
			Having no friends	1.17	4.36	.158	3.22
Model 3	0.32 (1)	.573	Submissiveness	1.34	10.24	.001	3.83
			Having no friends	1.48	3.58	.058	4.38
			Submissiveness × Having no friends	-3.31	0.32	.571	0.71

As can be seen in Table 14.4, the analysis yielded a significant positive association between submissiveness and being a victim. Moreover, the inclusion of the social risk variable resulted in a significantly better model fit. There was a tendency for having no friends to be related to the outcome variable. The interaction term Submissiveness × Having no friends was not significant, indicating an additive effect of submissiveness and having no friends.

Next, submissiveness was combined with the variable having a best friend. As can be seen in Table 14.5, having a best friend was not a significant predictor of being victimized. This variable did not contribute to a better model fit. Thus, having a best friend had no effect on the probability of being a victim.

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[33] This procedure is analogous to the study of Hodges et al. (1997) which also investigated individual and social risk as interacting determinants of victimization except that I performed logistic instead of linear regressions.

Table 14.5:   Submissiveness × Having a best friend as predictors of being a victim ($N = 174$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	21.74 (1)	.000	Submissiveness	1.24	16.94	.000	3.46
Model 2	0.15 (1)	.701	Submissiveness	1.23	16.27	.000	3.41
			Having a best friend	-0.24	0.14	.704	0.79
Model 3	0.41 (1)	.521	Submissiveness	1.11	10.48	.012	3.04
			Having a best friend	-0.63	0.45	.501	0.53
			Submissiveness × Having a best friend	0.46	0.38	.535	1.58

Furthermore, introversion was included in the analysis together with having no friends. The results yielded that introversion as well as having no friends were significant predictors of being a victim (see Table 14.6).

Table 14.6:   Introversion × Having no friends as predictors of being a victim ($N = 174$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	9.95 (1)	.002	Introversion	1.02	8.91	.003	2.76
Model 2	4.55 (1)	.033	Introversion	0.91	6.87	.009	2.49
			Having no friends	1.15	4.69	.030	3.16
Model 3	1.87 (1)	.171	Introversion	0.57	1.73	.189	1.76
			Having no friends	0.52	0.44	.506	1.68
			Introversion × Having no friends	1.01	1.66	.198	2.94

Afterwards, introversion was combined with having a best friend (see Table 14.7). The inclusion of the interaction term Introversion × Having a best friend significantly increased the model fit. Moreover, the interaction was a significant predictor of being victimized. Figure 14.1 clearly depicts an interaction between introversion and having a best friend. While for children without a best friend introversion significantly predicted victimization (*Odds* = 4.74, *p* = .001), for children who had a best friend, introversion was not a significant predictor of being victimized (*Odds* = 1.00, *p* = 1.000). Thus, having a best friend served as a moderator, i.e. as a protective factor.

Table 14.7:   Introversion × Having a best friend as predictors of being a victim ($N = 174$)

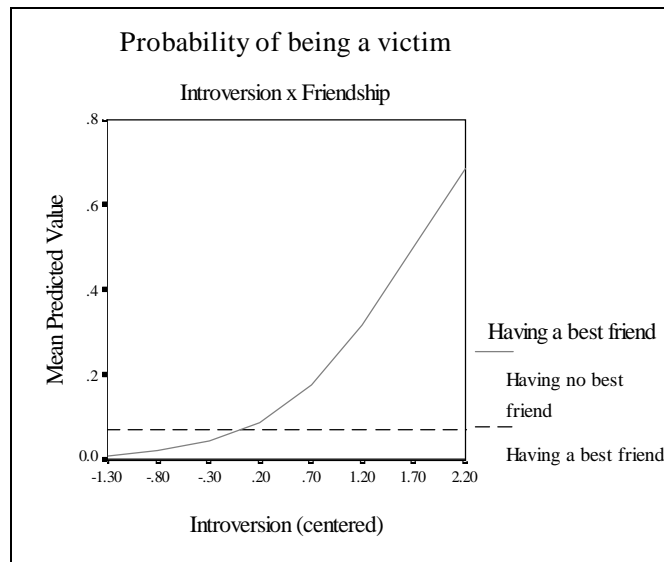| Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	9.95 (1)	.002	Introversion	1.02	8.91	.003	2.76
Model 2	0.86 (1)	.355	Introversion	1.01	8.64	.003	2.74
			Having a best friend	-0.55	0.80	.371	0.58
Model 3	4.20 (1)	.040	Introversion	1.56	10.49	.001	4.74
			Having a best friend	0.04	0.00	.952	1.04
			Introversion × Having a best friend	-1.56	3.85	.049	0.21

Figure 14.1:   Predicted probabilities of being a victim: Introversion × Having a best friend

14.1.2 Low Social Status as Social Risk

In the next two analyses, social status was combined with submissiveness and introversion. The first analysis indicated that social status and submissiveness were significant predictors of being victimized (see Table 14.8). As the effect of the interaction was not significant, the effects were additive. Thus, children who were submissive and had a low social status had the highest probability of being a victim.

Table 14.8:   Submissiveness × Social status as predictors of being a victim ($N = 181$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	23.72 (1)	.000	Submissiveness	1.22	18.45	.000	3.39
Model 2	8.44 (1)	.004	Submissiveness	1.08	12.73	.000	2.93
			Social status	1.45	7.83	.005	4.24
Model 3	1.50 (1)	.220	Submissiveness	1.24	12.83	.000	3.46
			Social status	2.13	7.76	.005	8.46
			Submissiveness × Social status	-0.72	1.52	.217	0.49

The analysis involving introversion and social status yielded significant associations for social status, introversion as well as Introversion × Social status (see Table 14.9). The significant interaction term indicates that the relation between introversion and being victimized was not identical for all children (see Figure 14.2). The follow-up analysis revealed that introversion was only positively related to victimization for children of an average social status ($Odds = 3.29$, $p = .011$).

Table 14.9:   Introversion × Social status as predictors of being a victim ($N = 180$)

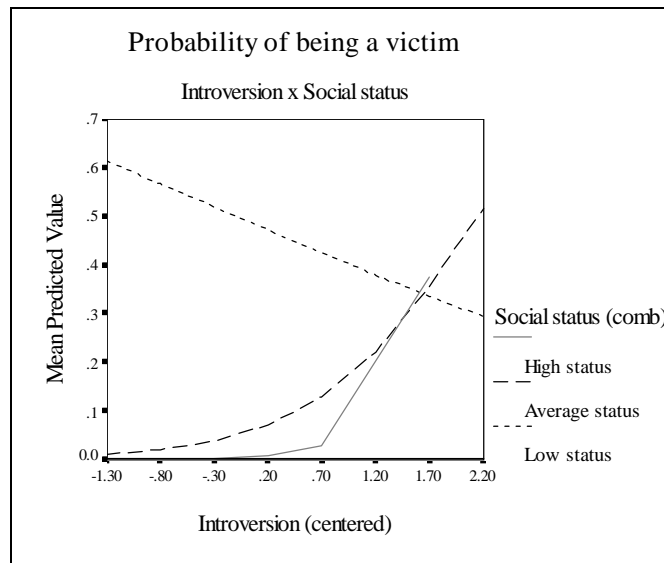| Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	12.86 (1)	.000	Introversion	1.05	11.28	.001	2.87
Model 2	10.29 (1)	.001	Introversion	0.79	5.43	.002	2.21
			Social status	1.53	9.41	.002	4.64
Model 3	7.98 (1)	.005	Introversion	1.32	10.21	.001	3.75
			Social status	2.81	15.78	.000	16.54
			Introversion × Social status	-1.70	7.75	.005	0.18

Figure 14.2:   Predicted probabilities of being a victim: Introversion × Social Status

14.1.3   Age and Gender Differences

In order to establish whether the analyses presented above applied to children independent of their age group or gender, further analyses involving age group and gender were computed. Several logistic regression were performed to establish age and gender effects as well as possible interaction effects between age group or gender and the independent variables of interest.

   First, five regressions were computed in order to investigate age differences (see Table 14.1). None of the analyses yielded significant results regarding age group, neither with respect to main effects nor interaction terms. These results indicate that the findings presented above apply to children of the younger and the older age group.

Table 14.10:   Age group as predictor of being a victim: overview of the analyses

First step	Second step	Third step
Age group (B = 0.72, Wald = 2.35, Odds = 2.03, p = .126)	Submissiveness	Age group × Submissiveness (n.s.)
	Introversion	Age group × Introversion (n.s.)
	Social status	Age group × Social status (n.s)
	Having no friends	Age group × Having no friends (n.s)
	Having a best friend	Age group × Having a best friend (n.s.)

Next, gender was included in the regression analyses (Table 14.11). Neither gender nor the interaction terms involving gender were significant predictors. Thus, the results presented above applied to both boys and girls.

Table 14.11: Gender as predictor of being a victim: overview of the analyses

First step	Second step	Third step
Gender (B = -0.32, Wald = 0.48, Odds = 0.73, p = .490)	Submissiveness	Gender × Submissiveness (n.s.)
	Introversion	Gender × Introversion (n.s.)
	Social status	Gender × Social status (n.s.)
	Having no friends	Gender × Having no friends (n.s)
	Having a best friend	Gender × Having a best friend (n.s.)

14.2 Predictors of Being a Bully-victim

In the next analyses being a bully-victim served as the dependent variable. Bully-victims were compared to bullies. Submissiveness, introversion, overt aggression, and verbal/indirect aggression in combination with friendship and social status served as independent variables.

Table 14.12: Intercorrelations between victimization, individual and social risk variables (sample without non-involved, mixed, and victims, $N = 69$)

Subscales	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. **Being a bully-victim** (= 1)	--	-0.21	-0.02	0.30	0.00	0.26	0.19	0.23	-0.02	0.33
2. Age		--	-0.11	-0.24	-0.07	-0.16	-0.06	-0.24	0.07	-0.39
3. Gender (girls = 1)			--	-0.01	-0.07	-0.20	-0.11	-0.13	-0.09	-0.02
4. Submissiveness				--	0.26	0.09	-0.14	0.10	-0.02	0.26
5. Introversion					--	0.21	0.03	0.20	-0.04	0.37
6. Overt aggression						--	0.75	0.28	-0.25	0.54
7. Verbal/indirect aggression							--	0.04	-0.13	0.31
8. Having no friends (= 1)								--	-0.43	0.44
9. Having a best friend (= 1)									--	-0.20
10. Social status (1 = low, 0 = average, --1 = high)										--

Note: Gray shaded cells indicate significant correlations (p < .05)

14.2.1   Lack of Friendships as Social Risk

The first analysis involving submissiveness and having no friends yielded a significant positive relation between submissiveness and being a bully-victim. Further, there was a tendency for having no friends to predict being victimized (see Table 14.13). The effects of submissiveness and having no friends were additive.

Table 14.13: Submissiveness × Having no friends as predictors of being a bully-victim ($N = 71$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	6.59 (1)	.010	Submissiveness	0.75	5.86	.016	2.12
Model 2	3.14 (1)	.077	Submissiveness	0.74	5.34	.021	2.10
			Having no friends	0.99	3.01	.083	2.70
Model 3	0.38 (1)	.538	Submissiveness	0.63	2.97	.085	1.88
			Having no friends	1.11	3.12	.077	3.04
			Submissiveness × Having no friends	0.47	0.36	.550	1.60

The analysis involving submissiveness and having a best friend revealed that having a best friend had no effect on being victimized (see Table 14.14)

Table 14.14: Submissiveness × Having a best friend as predictors of being a bully-victim ($N = 71$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	6.59 (1)	.010	Submissiveness	0.75	5.86	.016	2.12
Model 2	5.10 (1)	.024	Submissiveness	0.74	5.34	.021	2.10
			Having a best friend	0.99	3.01	.082	2.70
Model 3	0.96 (1)	.326	Submissiveness	0.63	2.97	.085	1.88
			Having a best friend	1.11	3.12	.077	3.04
			Submissiveness × Having a best friend	0.47	0.36	.550	1.60

The next analysis involved introversion and having no friends. Introversion did not significantly predict being a bully-victim. However, having no friends was positively related to being victimized (see Table 14.15).

Table 14.15: Introversion × Having no friends as predictors of being a bully-victim ($N = 71$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	0.01 (1)	.912	Introversion	0.032	0.01	.912	1.03
Model 2	4.36 (1)	.034	Introversion	-0.10	0.11	.741	0.95
			Having no friends	1.14	4.13	.042	3.12
Model 3	0.56 (1)	.455	Introversion	0.53	0.02	.884	1.05
			Having no friends	1.13	3.92	.048	3.09
			Introversion × Having no friends	-0.49	0.55	.457	0.62

The analysis involving introversion and having a best friend yielded no significant associations. Neither introversion nor having a best friend predicted the outcome (see Table 14.16).

Table 14.16: Introversion × Having a best friend as predictors of being a bully-victim ($N = 71$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	0.01 (1)	.912	Introversion	0.03	0.01	.912	1.03
Model 2	0.20 (1)	.653	Introversion	0.03	0.01	.930	1.03
			Having a best friend	-0.22	0.20	.653	0.80
Model 3	0.33 (1)	.567	Introversion	-0.09	0.07	.781	0.87
			Having a best friend	-0.14	0.08	.781	0.87
			Introversion × Having a best friend	0.35	0.37	.568	1.41

Likewise, the regression model involving verbal/indirect aggression plus having no friends (or having a best friend) revealed no significant associations. Verbal/indirect aggression did not predict being victimized (see Table 14.17 and Table 14.18).

Table 14.17: Verbal/indirect aggression × Having no friends as predictors of being a bully-victim ($N = 69$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	2.53 (1)	.112	Verbal/indirect aggression	0.48	2.42	.120	1.62
Model 2	3.61 (1)	.058	Verbal/indirect aggression	0.48	2.32	.128	1.62
			Having no friends	1.03	3.45	.064	2.88
Model 3	0.08 (1)	.772	Verbal/indirect aggression	0.44	1.51	.219	1.55
			Having no friends	0.78	0.58	.447	2.18
			Submissiveness × Having no friends	0.23	0.08	.774	1.26

Table 14.18: Verbal/indirect aggression × Having a best friend as predictors of being a bully-victim
(N = 69)

Model χ² improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	2.53 (1)	.112	Verbal/indirect aggression	0.48	2.42	.120	1.62
Model 2	0.00 (1)	.970	Verbal/indirect aggression	0.48	2.40	.121	1.64
			Having a best friend	0.02	0.00	.970	1.02
Model 3	0.335	.563	Verbal/indirect aggression	0.32	0.63	.427	1.38
			Having a best friend	-0.38	0.33	.662	0.68
			Verbal/indirect aggression × Having a best friend	0.36	0.46	.566	1.44

Furthermore, overt aggression and having no friends served as independent variables. Overt aggression was a significant predictor of being a bully-victim (Table 14.19).

Table 14.19: Overt aggression × Having no friends as predictors of being a bully-victim (N = 70)

Model χ² improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	4.67 (1)	.031	Overt aggression	0.58	4.27	.039	1.78
Model 2	2.22 (1)	.136	Overt aggression	0.48	2.73	.098	1.61
			Having no friends	0.84	2.17	.141	2.31
Model 3	0.13 (1)	.723	Overt aggression	0.54	2.59	.108	1.71
			Having no friends	1.18	1.10	.295	3.25
			Overt aggression × Having no friends	-0.25	0.13	.721	0.78

Likewise, overt aggression was entered into the equation together with having a best friend. Again, overt aggression was a significant predictor of being victimized whereas having a best friend had no effect (see Table 14.20).

Table 14.20: Overt aggression × Having a best friend as predictors of being a bully-victim ($N = 70$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	4.67 (1)	.031	Overt aggression	0.58	4.27	.039	1.78
Model 2	0.04 (1)	.848	Overt aggression	0.59	4.24	.039	1.80
			Having a best friend	0.10	0.04	.848	1.11
Model 3	0.18 (1)	.673	Overt aggression	0.48	1.57	.211	1.61
			Having no friends	-0.17	0.04	.837	0.84
			Overt aggression × Having a best friend	0.24	0.18	.675	1.28

14.2.2 Low Social Status as Social Risk

The next series of analyses involved social status as a social risk variable. First, submissiveness was combined with social status. Table 14.21 indicates that submissiveness as well as social status were significant predictors of being victimized. As the interaction term was not significant, the effects were additive.

Table 14.21: Submissiveness × Social status as predictors of being a bully-victim ($N = 69$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	6.59 (1)	.010	Submissiveness	0.75	5.86	.016	2.12
Model 2	5.54 (1)	.019	Submissiveness	0.62	3.69	.055	1.86
			Social status	1.14	4.89	.027	3.12
Model 3	1.99 (1)	.159	Submissiveness	0.48	2.13	.145	1.62
			Social status	1.45	5.55	.019	4.27
			Submissiveness × Social status	0.96	1.84	.175	2.60

Next, introversion and social status were entered as independent variables. The analysis did not yield significant relations between introversion and being victimized. However, social status was a significant predictor of being a bully-victim (see Table 14.22).

Table 14.22: Introversion $\times$ Social status as predictors of being a bully-victim ($N = 71$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	0.01	.912	Introversion	0.03	0.01	.912	1.03
Model 2	9.71	.002	Introversion	-0.35	1.08	.299	0.79
			Social status	1.55	8.08	.005	4.71
Model 3	0.91	.341	Introversion	-0.46	1.63	.202	0.63
			Social status	1.68	9.03	.003	5.39
			Introversion $\times$ Social status	0.59	0.89	.345	1.80

Further, the analysis involving verbal/indirect aggression and social status only revealed a significant effect for social status. Verbal/indirect aggression did not predict victimization (see Table 14.23).

Table 14.23: Verbal/indirect aggression $\times$ Social status as predictors of being a bully-victim ($N = 69$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	2.53	.112	Verbal/indirect aggression	0.48	2.42	.120	1.62
Model 2	6.35	.012	Verbal/indirect aggression	0.28	0.71	.400	1.33
			Social status	1.21	5.56	.018	3.36
Model 3	0.17	.685	Verbal/indirect aggression	0.32	0.83	.362	1.37
			Social status	1.48	2.98	.084	4.38
			Verbal/indirect aggression $\times$ Social status	-0.23	0.163	.686	0.80

Lastly, overt aggression and social status were entered into the regression analysis. As can be seen in Table 14.24, overt aggression was a significant predictor of victimization. However, when entering social status in the regression equation, the significant association between aggression and being a bully-victim disappeared. This result may be an indication of the mediating effect of social status. As defined by Baron and Kenny (1986), the mediator function of a third variable represents the generative mechanism through which the focal independent variable is able to influence the dependent variable. This may indicate that overt aggression leads to a low social status, which in turn predisposes a child to being victimized. According to Baron and Kenny (1986) perfect mediation holds if the independent variable (i.e. overt aggression) has no effect when the mediator (i.e. social status) is controlled (see Figure 14.3).

Table 14.24: Overt aggression × Social status as predictors of being a bully-victim ($N = 70$)

Model χ^2 improvement (df)		p	Variables	B	Wald	p	Odds
Model 1	4.67	.031	Overt aggression	0.58	4.27	.039	1.78
Model 2	4.34	.037	Overt aggression	0.26	0.62	.433	1.29
			Social status	1.12	3.96	.047	3.07
Model 3	0.32	.572	Overt aggression	0.31	0.81	.369	1.36
			Social status	1.51	2.57	.582	4.55
			Overt aggression × Social status	-0.29	0.30	.582	0.745
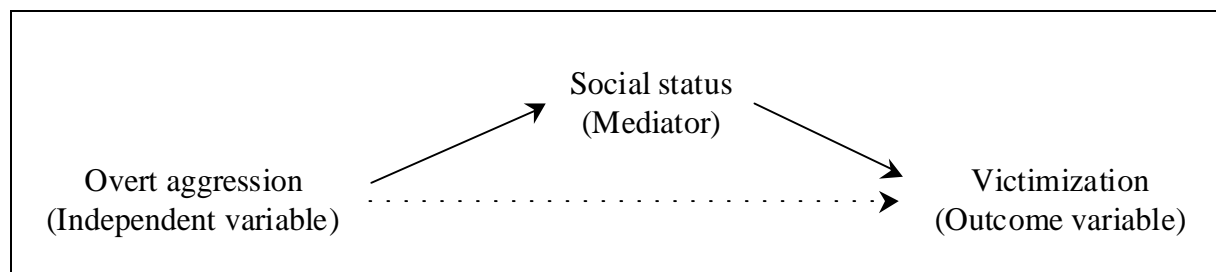
Figure 14.3: Mediational model (after Baron & Kenny, 1986)

14.2.3 Age and Gender Differences

In order to establish whether there are gender or age differences regarding the relations presented above between risk variables and victimization, several additional regressions were conducted (see Table 14.25 and Table 14.26).

Table 14.25: Age group as predictor of being a bully-victim: overview of the analyses

First step	Second step	Third step
Age group (B = 1.22, Wald = 4.61, Odds = 3.38, p = .032)	Submissiveness	Age group × Submissiveness (n.s.)
	Introversion	Age group × Introversion (n.s.)
	Overt aggression	Age group × Overt aggression (n.s.)
	Verbal/indirect aggression	Age group × Verbal/indirect aggression (n.s.)
	Social status	Age group × Social status (n.s)
	Having no friends	Age group × Having no friends (n.s)
	Having a best friend	Age group × Having a best friend (n.s.)

The analyses indicated that age group was a significant predictor of being a bully-victim. However, none of the interactions were significant. Thus, the findings presented above applied to older and younger children.

The analyses involving gender revealed an interesting interaction effect. Gender × Submissiveness was a significant predictor of victimization. Figure 14.4 depicts the relation between submissiveness and victimization for boys and girls. The follow-up analysis revealed that submissiveness was positively related to victimization only for boys (*Odds* = 3.83, *p* = .004) but not for girls (*Odds* = 1.03, *p* = .946). All other findings seem to apply to boys and girls.

Table 14.26: Gender as predictor of being a bully-victim: overview of the analyses

First step	Second step	Third step
Gender (B = -0.09, Wald = 0.03, Odds = 0.92, p = .865)	Submissiveness	Gender × Submissiveness (B = -1.31, Wald = 4.16, Odds = 0.27, p = .041)
	Introversion	Gender × Introversion (n.s.)
	Overt aggression	Gender × Overt aggression (n.s.)
	Verbal/indirect aggression	Gender × Verbal/indirect aggression (n.s.)
	Social status	Gender × Social status (n.s)
	Having no friends	Gender × Having no friends (n.s)
	Having a best friend	Gender × Having a best friend (n.s.)

Figure 14.4:   Predicted probabilities of being a bully-victims: Submissiveness × Gender

14.3 Summary and Interpretation

The analyses revealed that individual as well as social risk are related to being victimized. Unfortunately, our data was not longitudinal, thus I was not able to establish developmental pathways. Nevertheless, the associations between the - statistical - predictor variables (social behavior, friendships, and social status) and the outcome variables (being a victim or a bully-victim) confirmed the findings of longitudinal studies (Hodges et al., 1999; Schwartz et al., 1999). Therefore, two different pathways to victimization seem to exist. The association between individual and social risk variables and victimization was not identical for aggressive and non-aggressive children. Being introverted and submissive predicted victimization for victims, whereas overt aggression and submissiveness were significant predictors of being a bully-victim. Although victims and bully-victims might be distinguished in terms of their individual risk, having no friends and low social status predicted victimization for all children. Moreover, social risk variables moderated or mediated behavioral vulnerabilities.

In contrast to my expectations, submissiveness was also related to victimization for male bully-victims. As presented in Section 11.3, victims were significantly less able to set limits to peers in comparison to non-involved children, whereas bully-victims did not. However, the present analyses yielded that, in comparison to bullies, male bully-victims were submissive. This finding indicates that boys who bully others need to have an extremely high ability to set limits. Otherwise, they will also be victimized.

Introversion was a significant predictor of being victimized, but only for victims. Further, social risk variables moderated the relation between introversion and victimization. Only for children who had no best friend and an average social status withdrawal predicted victimization. My hypothesis that social status and friendships moderate the relation between individual risk and victimization were partly confirmed. This finding corresponds to other studies (e.g. Hodges et al., 1997; Hodges et al., 1999). However, submissiveness was a significant predictor of victimization independent of social risk variables. Submissiveness, low social status, and lack of friends had additive effects in the prediction of victimization.

For bully-victims, overt aggression was a significant predictor of victimization, but not verbal/indirect aggression. This finding indicated that different forms of aggression are important to consider when investigating bullying and victimization. Furthermore, social status mediated the relation between overt aggression and victimization. This

result indicates that bully-victims' overt aggression probably induced their low social status which in turn might result in victimization. This finding corresponds with peer rejection research (e.g. Coie et al., 1990). Moreover, Schwartz et al. (1999) found that peer rejection mediated the relation between early problem behaviors and later victimization. In sum, individual and social risk are interacting determinants of victimization.

15 General Discussion

15.1 Bullying and Victimization in the Peer Group Context

The findings of our study clearly demonstrate that bullying is a *social phenomenon.* Bullying as a social behavior pattern is embedded in the social system where it occurs (Hinde, 1992; Cairns & Cairns, 1991). As bullying is a behavior which occurs among peers, the peer group is the most important social context. The conceptualization of bullying as an individual behavior problem of some children is an oversimplification. Certain behavior patterns may predispose children to being victimized or to becoming bullies, but peers may directly and indirectly promote bullying and victimization (Pepler et al., 1995). On the one hand, low social status and having no friends were potential social risk factors contributing to victimization. On the other hand, bullies had many friends and were even leaders within their groups which consisted of other aggressive individuals. Thus, bullying behavior was indirectly supported and reinforced by peers.

Our investigation showed that bullying may be considered as *systematic power abuse* (Smith & Sharp, 1994). Older children mainly attacked younger children, who were not only presumably smaller and weaker but also had a lower social status which in turn impeded support from other children. Moreover, bullies were quite popular and had a high social status - at least among their friends. They often displayed verbal or indirect aggression or forms of bullying which required a firm embeddedness in the social system in order to be effective (Xie et al., 1998). The finding that bullies were liked by their peers and had many friends indicated that their bullying behavior was not negatively evaluated by others. Assumedly, bullies seldom faced negative consequences of their behavior. On the one hand, teachers were not able to respond to the very frequently occurring negative interactions in a regular and consistent way. On the other hand, peers responded to most negative interactions in a neutral way. The mixture of being sociable and having power over others as well as being (successfully) aggressive seems to attract other peers - at least boys. Bullies affiliated with other aggressive children and were leaders. It is possible that bullying behavior might increase children's social status in these aggressive groups. Furthermore, some children even selected a bully as their friend even though they were also victimized by this child. As we did not assess negative nominations, we were not able to gain

information about whom children did not like. Probably, bullies were not liked by everybody in the group, but being liked by everybody may not be so important. Being accepted by one's friends is probably more significant for an individual's well-being. In sum, already in kindergarten, bullies successfully abuse their power by displaying aggressive behaviors toward weaker children.

Bully-victims should primarily be considered as *victimized children* rather than being bullies. In contrast to bullies, bully-victims were neither liked by their peers, nor did they have many friends. Bullies and bully-victims also differed regarding their use of different forms of aggression. Bully-victims displayed high levels of physical aggression. Moreover, they were found to have attention deficits (Alsaker & Valkanover, 2000). Thus, they may be described as being disruptive and highly aggressive. Therefore, the question arises whether these children may really be considered as 'bullying' or whether they are mainly reactively aggressive due to attributional biases (Crick & Dodge, 1994). While they repeatedly behaved aggressively toward their peers, which may be considered as bullying, they did not necessarily attack weaker or lower status children. Nevertheless, they may gain a certain social status by means of affiliating with bullies and by imitating them. It is possible to consider them as the bully's assistants instead of being 'ringleader bullies' (Sutton et al., 1999a; Salmivalli et al., 1996). Moreover, bully-victims were a heterogeneous group, some of them should be conceived as 'aggressive victims' and not as children who bully others and are victimized themselves.

The simultaneous consideration of *various levels* is important to understand the interactional and systemic nature of victimization. The finding that victims were submissive and withdrawn, had no friends, and had a low social status within their peer group may also reflect a more general picture of victimization. Being weaker and thus unable to protect oneself (self-defense), having nobody who provides help, and having a lower social status in society, are all factors which presumably contribute to different types of victimization such as child maltreatment, rape, or elder abuse.

The findings emphasized the potential *role of 'peer relations'* (both dyadic and group-oriented constructs such as friendships and social status) in the bullying context. Moreover, children in kindergarten also displayed indirect or *relational bullying* forms which may aim at hurting other children's social relationships or - at least - aim at excluding children from peer activities. The main activity in kindergarten is playing, hence, being excluded from joint play may be particularly painful for affected children.

Bullying concerns the *whole peer group as well as teachers*. Bullying in kindergarten is widespread and belongs to everyday life. Not only children directly involved in bullying are affected by occurrences of bullying. Children learn the rules of social relationships in the peer group (Bigelow et al., 1996). In peer groups or classrooms, where bullying is an everyday occurrence, the social rules which children learn counteract the moral value of equality. Instead of internalizing moral values such as equality or altruism, children learn the principle of 'survival of the fittest'. In order to avoid being the next victim, looking away or even joining in bullying instead of helping the victim will be the preferred reaction. To counter this socially undesirable outcome, adults have to play an active role to intervene against or - even better - prevent bullying and victimization.

15.2 Age and Gender: Generalization Limits

Until now I ignored the fact that children are not just children, but *boys and girls*. Presumably, bullying is not identical for boys and girls. As boys and girls differ regarding their peer relationship patterns (Asher, 1992; Maccoby, 1986), bullying does not have the same function for them. For boys, bullying may be more related to the issue of personalized power and dominance, whereas for girls bullying is probably more closely associated with affiliation and exclusion (Tattum, 1989). We found that boys more often bullied and were also more often victimized. Although bullying appears to be more of a male problem, girls were also involved in occurrences of bullying, either as bullies, bully-victims, or victims. Boys displayed all but one form of bullying - exclusion - more often than girls. However, girls used exclusion equally frequent as boys. Therefore, they do not seem to compensate their lower level of aggressiveness by more frequently displaying indirect forms of aggression.

Generally, we were not able to detect many differences between male and female bullies, bully-victims, or victims. This may be partly due to the small sample size. Nonetheless, what we found was that teachers only rated female victims as being not liked by most of the children, whereas male victims were as liked as non-involved children. However, this gender difference did not emerge with other measures of social status.

Moreover, the comparison of bullies and bully-victims revealed that submissiveness predicted victimization only for boys and not for girls. Maybe this difference is due to a gender-related use of forms of bullying or aggression. Being submissive may

reinforce overt aggression, whereas being able to set limits may not constitute effective protection against indirect aggression or exclusion.

Furthermore, affiliation of aggressive children (bullies and/or bully-victims) was mainly a male issue. As we found strong gender segregation in our sample, we might also expect different use of bullying for boys and girls. All boys were victimized by other boys which reflects gender segregation. However, some of the boys were also victimized by girls. Such 'borderwork' (Thorne, 1986), i.e. cross-gender bullying, was carried out in both directions: Some boys bullied girls and some girls bullied boys. To sum up, most of the findings of our study applied to boys and girls.

Nevertheless, a larger sample size might reveal further gender differences as our sample size was probably too small to detect statistically significant differences. As a consequence, gender is an important issue to consider when investigating bullying and victimization.

The present study was one of the first investigations which tapped *bullying in kindergarten age*. The findings were by and large comparable to studies among school-age children. However, we found more bully-victims than other studies did. Maybe some of the bully-victims were misperceived and were in fact children who were frequently involved in conflicts and in other aggression episodes. Aggressive behaviors in kindergarten are frequent. First, kindergarten children have many opportunities to play on their own in the context of unguided activity. Second, conflicts are often resolved by physical means. Third, rough-and-tumble play which may develop into aggressive behavior occurs quite frequently. On the other hand, it is also possible that bullying is more frequent in kindergarten than in school age. The behavior of kindergarten children is comparable to playground behavior among school-age children, where bullying and aggressive episodes were also observed more often than in the classroom (Craig et al., 1997).

In kindergarten, *'peer relations'* do not serve the same function as during later childhood and adolescence. Sullivan (1953) suggested that in kindergarten age acceptance is more important than having a best friend. However, we found that lack of friendships was related to being victimized. Having no friends was a potential risk factor of victimization. Moreover, having a best friend buffered the effect of withdrawal as an individual risk factor. Thus, although friendships in kindergartens are not as exclusive and intimate as in adolescence, friends played a protective role in victimization. In sum, we found that friendships as well as social status were important variables to assess in kindergarten age.

15.3 Practical Implications

Bullying in kindergarten is widespread and should be taken seriously. Bullying has serious short- and long-term consequences for both victims and bullies (Olweus, 1994; Rigby, 1996; Lane, 1989). Therefore, *measures to counter bullying* should be taken, either by the teacher in her everyday kindergarten organization or through specially designed prevention programs. Our understanding of the social and interactional nature of bullying and victimization has practical implications for the design of such intervention efforts. Bullying in kindergarten is embedded in the peer group context and affects the whole kindergarten group. Therefore, prevention on the individual level, such as social skills training for bullying children or assertiveness training for victimized children, cannot be considered as sufficient means to prevent bullying and victimization. Generally, the implications drawn from this dissertation support the various prevention programs which were designed to counter bullying in school age (e.g. Olweus, 1991, 1995; Craig & Pepler, 1996; Rigby & Slee, 1998; Whitney et al., 1994) as well as the prevention program developed in our project (Alsaker & Valkanover, 2000).

   Countering bullying involves the *protection* of potential victims. Victimized children had problems to set limits and to defend themselves effectively. Therefore, they could benefit from a special assertiveness training. However, this individual training may only be successful when it is paralleled by broader interventions in the classroom. First, adults and non-involved peers should learn to intervene when a child is attacked. Two preconditions must be met to achieve this goal: Bullying must be openly discussed in the kindergarten group, and there have to be clear rules against bullying (Olweus, 1991; Alsaker & Valkanover, 2000). Second, children vulnerable to being victimized may benefit of an - older - 'friend' who is advised to protect that child. However, as real friendships cannot be formed by order, a further goal may be to promote friendships between children and to encourage withdrawn children to participate in group activities. Nevertheless, teachers have to be aware that friendships do not only have positive functions but may also involve 'dark sides' such as victimization. In most kindergartens, children are permitted to choose their playmates themselves. This may result in repeated exclusion of disliked children. Thus, more teacher guidance may be necessary to prevent the isolation of certain children, which in turn is a potential precursor of victimization. Generally, victimized children should receive more attention by the teachers who - for partly understandable reasons - often

concentrate on controlling the behavior of aggressive and disruptive children in order to maintain undisturbed lessons.

Not only should victims be protected, but bullies have to *cease their bullying* behavior. Bullies seldom face negative consequences of their behaviors by their peers. Thus, teachers are demanded to intervene in a consistent and regular manner against aggressive attacks. However, as negative interactions occur very frequently in kindergarten, it is not possible for teachers to respond to each episode. Therefore, establishing behavioral rules - a code of behavior - may facilitate interventions by the peers (Olweus, 1991; Alsaker & Valkanover, 2000). Consequently, bullying children experience disapproval of their behavior instead of being positively reinforced. When peers perceive that bullies repeatedly violate the rules, those bullies' social status may decrease and thus their potential modeling function may vanish. In addition to these whole-group interventions, social skills training might be effective for highly aggressive children (e.g. bully-victims) to learn to manage their aggressive impulses (Mize & Ladd, 1990).

In sum, bullying prevention may only be effective when the *whole kindergarten group* or even the whole school participate. Teacher interviews revealed that kindergarten teachers were not aware of the important role of the peer group (Jost & Zbinden, 1999). Thus, promoting teachers' awareness of the social nature of bullying is a first step toward a caring and supportive kindergarten where the emergence of bullying is not accepted.

15.4 *Methodological Limitations and Research Implications*

No standard assessment method exists to investigate bullying in kindergarten. Therefore, we had to develop some partly *new methods*. A new procedure was applied in order to categorize children as bullies, bully-victims, and victims. Furthermore, in order to give a more detailed account of the interactional nature of bullying, the assessment of negative interaction dyads, the SCM-technique, as well as naturalistic observations supplemented standard behavioral ratings and sociometric measures. Accordingly, several methodological limitations of our study should be mentioned.

The basic independent variable was the *categorization* of participants as bullies, bully-victims, and victims. It was based on a combination of teacher ratings and peer nominations. Peer and teacher reports of bullying were quite highly related, but reports of victimization only showed a small to moderate overlap. Victims were hardly

identified by both informants. We weighed teacher ratings more than peer nominations. Children who were only identified by their peers - and not by their teacher - as being involved in bullying were not included in the analyses. However, it would be very interesting to investigate this subgroup of children in more detail in order to examine why these children were perceived only by peers as victims or bullies, but not by their teacher. Perhaps peers nominated children who had just recently been involved in an aggression episode, whereas teachers summarized a longer time period. However, it is also possible that these children were in fact bullies or victims, but that the teachers failed to perceive that these children were involved in occurrences of bullying. As this question was beyond the scope of this dissertation, this subgroup was not analyzed in more detail.

We did not include *self-reports* in our categorization procedure, as most of the children nominated themselves as being victimized. Probably, self-reports should be taken more seriously. The findings indicated that many bullies and bully-victims attacked 'everybody', i.e. no specific children in the group. Therefore, it may be the case that almost every child was a target of aggressive acts now and then. Nevertheless, the high percentage of victimization self-reports was partly due to methodological problems. We explained the term 'bullying' by means of pictures depicting various forms of aggression which did not clearly emphasize the power asymmetry between bully and victim. Moreover, children were not able to answer the question how often the assumed occurrences of bullying happened. Thus, peer nominations also included aggressive acts such as conflicts which should not be considered as bullying. This fact may partly explain our high number of bully-victims, which clearly exceeded the proportions found in other studies. In fact, observations indicated that bully-victims were a very heterogeneous group which should be differentiated in future studies. Furthermore, the analysis of the question who was victimized by whom indicated that some bully-victims 'bullied' each other. However, bullying is conceived as a behavior which is directed *against* someone and not *between* two children. Thus, the group of bully-victims probably contained aggressive children who were frequently involved in conflicts but should not be considered as bully-victims at all.

Bullying was *not equally frequent* in all kindergarten groups. In some groups, only one bully or bully-victim and no victims were identified, whereas in other groups, more than half of all children were involved in bullying. Thus, our subgroups of interest were not randomly selected from the whole sample of 344 children. This

non-independence of data might have caused statistical problems (Kenny, 1997). More importantly, in groups including many bullies or bully-victims it might be unavoidable for them to be friends. However, a preliminary inspection of groups involving high percentages of aggressive children compared with groups involving only few bullies or bully-victims indicated that the affiliation of aggressive children was not just a methodological artifact caused by the high number of children involved in bullying.

The finding that bullying was not equally likely in all groups also emphasized the *peer group context*. Being a bully in a group with only a few aggressive children probably does not have the same implication as being a bully among other aggressive children. Therefore, statistical analyses which include the kindergarten group as an additional variable (multi-level modeling) would certainly give an additional understanding of the role of the peer group in bullying. Unfortunately, our sample size (18 kindergartens) was too small to apply these statistical procedures (Jones & Duncan, 1999).

The question *who is victimized by whom* was assessed by means of child and teacher nominations. It was the first time a study attempted to analyze this question in such detail. Thus, the criterion of using one teacher nomination or two child nominations to identify negative interaction pattern dyads was arbitrary. The small overlap between children's and teacher's view indicated that it may not be easy to establish who is victimized by whom. Maybe bullying, aggressive behavior, and conflicts are so frequent in kindergarten that it becomes difficult to assess 'real' bullying and to establish the identity of the perpetrators. Moreover, it is possible that bullying in kindergarten does not involve stable bully/victim relationships. In fact, children and teachers reported that some children were victimized by 'everybody' and vice versa. In order to investigate the relational context of bullying, the nominations were transformed into *dyadic* data. However, teachers and children reported that some children were victimized by a *group* of children or they described the relationships between the children involved in more detail. Thus, a phenomenological approach (Bortz, 1984) to describe patterns of bullying, e.g. victimization within a group of affiliated girls, bullying by a group of children (a 'gang'), victimization of several children by one strong bully, etc., would provide an even more profound comprehension of the peer group context, as well as the role of peer relationships in the emergence of bullying.

Social behavior patterns were assessed by means of teacher ratings. Each kindergarten teacher rated the children of her group. Thus, we might expect rater

biases in our data. However, as our results by and large confirmed other studies, this potential rater biases did not seem to be a major 'disturbance factor'. Peer relationships and social status were assessed by means of different informants. This multi-informant and multi-method approach probably increased the validity and reliability of the results. Moreover, the employment of different methods and information sources yielded interesting additional results. For the first time, peer relations of children involved in bully/victim problems were investigated by means of SCM-technique. This assessment technique yielded interesting results regarding the children's group status as well as peer affiliation. I recommend further use of this technique as it supplements information gained through standard sociometric questions.

Naturalistic observations were carried out by means of narratives, which were very time-consuming. In order to increase the probability of observing bullying events, we chose children presumably involved in bullying. At that point, our categorization procedure had not yet been developed. Interviewers chose the focal children according to their perception based on child and teacher interviews. However, some of the focal children subsequently were not categorized as bullies, bully-victims, or victims. Maybe, interviewers chose children as focal children who corresponded to their personal representation of a bully or a victim, or just the behaviorally most salient or maladjusted children. This non-agreement obviously limited the generalizability of the observational results. We observed only one victim and one bully. Therefore, our insight into the behaviors of these children was very limited. We were not able to compare them to other children in order to establish common patterns in their social behavior. For that reason, observational results were mainly presented as complementary descriptive information. Nonetheless, naturalistic observations allowed us to gain insights into everyday social interaction of bullying or victimized children.

The *cross-sectional design* of the present field study implicates its most important methodological limitation. Social behavior patterns, peer relationships, and social status were assessed concurrently with bullying status. Although we may expect certain causal relationships between the variables based on former studies and theoretical assumptions, we do not know whether the behavior patterns described and the lack of friends or a low social status preceded bullying status, or vice versa, or whether both are the outcomes of an unknown third variable. Therefore, our results merely present a description of a specific state at a particular time in the children's life. Consequently, subsequent studies should employ longitudinal or even a (quasi)-experimental design in order to investigate developmental pathways.

Obviously, the peer group context and social behavior patterns are not the only significant variables in the emergence of bullying. Therefore, subsequent studies should also investigate *other social context variables*, such as children's socialization experiences, parents' and teachers' values and attitudes toward bullying, or school ethos. Moreover, children's social behavior at home or in other surroundings, their behavior toward teachers, or other psychological variables such as self-perception or social-information-processing would give a more comprehensive view of bullying and victimization.

15.5 *Being a Victim or a Bully in Kindergarten.... AND THEN?*

Entering kindergarten - an important developmental step - constitutes a positive experience for most children. However, for victimized children, this first peer group provides mainly *painful experiences*, inasmuch as they also have poor peer relations. This indicates that they were not able to form friendships which that might buffer those negative experiences. Furthermore, some of the children who had friends were also victimized within their friendships. Being victimized in kindergarten has negative short-term and long-term effects. Victimization in kindergarten was found to be a precursor of loneliness and school avoidance, and for some children an enduring negative experience (Kochenderfer & Ladd, 1996, 1997). The reciprocal influences between social status, having no friends and behavioral problems imply a vicious circle which underpins the strong temporal stability of peer victimization (Hodges & Perry, 1999).

Unfortunately, we might expect a certain *stability of victimization* experiences. First, some of the children in kindergarten will remain in the same class until the end of primary school. Thus, the child's role as an easy target will be established and may remain over several years. On the other hand, we found that older children mainly bullied younger ones. It is possible that the pattern of victimization and bullying could shift with changes in group composition during the subsequent kindergarten year. Second, being victimized results in low self-esteem (Rigby, 1996) which in turn may increase the chance of victimization, thus starting a vicious circle. Third, social status, particularly rejection, tends to remains stable over time (Coie, 1990). Therefore, bully-victims who are supposedly characterized by hyperactivity and attention deficits cannot easily change their behavior and will probably always encounter rejection and perhaps also continue to be victimized by their peers. Fourth, children who have

problems to set limits may not learn effective self-defense strategies unless some kind of intervention takes place. Lastly, withdrawal as a potential response to victimization may result in further victimization.

Not only is it likely that victimization is temporally stable, but it is also probable that *bullies will remain bullies* over a longer time period. Longitudinal studies indicate that aggression and bullying may be an expression of life-course persistent antisocial behavior (Lane, 1989; Moffit, 1993). However, our findings indicate that bullies were well embedded in the group, had many friends, and thus did not experience any negative consequences in relation to their behavior. Bullying may be considered as a learned behavior which is frequently reinforced. First, feelings of strength, power, and control are rewarding in themselves. Second, instrumental goals or peer affiliation may be achieved through bullying. Lastly, bullying constitutes an exciting and funny activity - at least for the perpetrators. Moreover, the affiliation of bullies with other aggressive children may lead to peer adaptations and thus to a lifelong history of violence (Dishion et al., 1994). Therefore, bullies will not stop their behaviors without external intervention. In sum, we might expect long-term consequences and stability of bullying and victimization. Therefore, it would be very beneficial to carry out a follow-up study involving the children of this study in order to investigate their developmental pathways.

In conclusion, our study demonstrated that bullying in kindergarten needs to be taken seriously and that it is embedded in the social context of the peer group. The differentiation of various levels, ranging from individual behavior patterns to dyadic peer relationships and to social status in the peer group, allowed us to gain insights into the *social complexity of the bullying phenomenon.*

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Boxes

Appendix A: Instruments

1. Child Interview (German: Kinderinterview)
2. Teacher Questionnaire (German: Kindergärtnerinnenfragebogen)

Nummer:

Kinderinterview zum „Plagen im Kindergarten"

Datum: .... Uhrzeit: ....

Einleitung

- Kind begrüssen.

- Wie du siehst, habe ich da ein Tonband, ich werde das Interview mit dir auf eine Kassette aufnehmen, damit ich nichts vergesse, was du mir erzählst.
  Beginn der Tonbandaufnahme: „Dies ist das Interview mit NN"

- Ich stelle dir jetzt ein paar Fragen, zum Beispiel, wer mit wem spielt und was Kinder im Kindergarten miteinander machen. Ich möchte gerne etwas mehr über das wissen, was Kinder in deinem Alter so machen.

- Ich erzähle nichts von dem, was du mir erzählst, weiter.

- Wenn du meine Fragen nicht genau verstehst, kannst du ruhig nochmal nachfragen, denn die Erwachsenen reden ab und zu ein bisschen kompliziert.

- Wenn du keine Fragen mehr beantworten willst, darfst du mir das sagen und dann hören wir auf, und du kannst ein anderes Mal wieder zu mir kommen. Du musst auch nicht alle Fragen beantworten, wenn du nicht willst.

- Ich bin vor einer Woche bei Euch im Kindergarten gewesen und habe Fotos gemacht. Da vor Dir liegen die Fotos von allen Kinder. Ich stelle Dir jetzt ein paar Fragen über die Kinder, welche mit dir im Kindergarten sind.

1) Zeig mir dein Foto.
   - ☐₁ Findet sein Foto sofort
   - ☐₂ Sucht ein wenig, aber findet es
   - ☐₃ Findet sein Foto nicht
   - ☐₄ Anderes: ....

2) Kannst du mir die Namen aller dieser Kinder sagen?
   - ☐₁ Zählt schnell alle Namen auf
   - ☐₂ Hat Probleme mit den Namen von einigen Kindern.
     Welche: ....
   - ☐₃ Anderes: ....

Mit den nachfolgenden Fragen darf nicht angefangen werden, bevor das Kind alle anderen Kinder mit Namen erkannt hat. Falls ein Kind Probleme bei der Aufgabe hatte, muss es bei den nachfolgenden Aufgaben, nicht nur auf das Foto der Kinder zeigen, sondern auch den Namen nennen.

3) Mit welchen dieser Kinder bist du im Kindergarten zusammen?

   (Fotos auswählen)

4) Hast du im Kindergarten eine beste Freundin oder einen besten Freund, mit dem du am liebsten zusammen bist? *(Foto auswählen)*

   ☐₁ Nein   ☐₂ Ja, wer ....

5) Hast du ausserhalb vom Kindergarten eine beste Freundin oder einen besten Freund, mit dem du am liebsten zusammen bist? *(nicht Geschwister!)*

   ☐₁ Nein   ☐₂ Ja

   6) *Bei fremdsprachigen Kindern:* In welcher Sprache redest du mit diesem Freund oder dieser Freundin? *(Falls das Kind nicht versteht, kann Frage 7 zuerst gestellt werden)*

   ....

   7) *Bei fremdsprachigen Kindern:* In welcher Sprache redest du Zuhause?

   ....

8) *Postauto vor das Kind hinlegen und Fotos auswählen lassen.*

   Du gehst mit dem Postauto auf eine Reise, welche Kinder aus dem Kindergarten nimmst Du mit? *(Keine Zahl nennen, aber falls nötig, auf 6 Kinder beschränken.)*

   ....

9) Gibt es im Kindergarten Kinder, die immer mit den gleichen Kindern zusammen sind, so kleine Grüppchen? *Fotos gruppieren, Kind darf sich selber auch nennen. Nach der Nennung einer Gruppierung, Fotos zurücklegen und nachfragen:* Jetzt hast du gesagt, x und y *(Namen einsetzen)* sind ein Grüppchen, gibt es noch andere?

   Gruppierung 1: ....

   G 2: ....
   G 3: ....
   G 4: ....
   G 5: ....
   G 6: ....
   G 7: ....

10) Es gibt aber nicht Freunde und Freundinnen im Kindergarten, sondern auch Kinder, die oft mit den anderen Kindern böse sind und sie plagen. Hast du das auch schon erlebt? Kannst du mir darüber erzählen, was ist passiert?

....

....

....

....

Es werden 4 Szenen mit Plagesituationen hingelegt, und die Bilder beschrieben:
Ich habe hier vier Bilder, da ist gezeichnet, wie Kinder andere Kinder plagen.

1. auslachen, böse Dinge sagen, Zunge rausstrecken
2. etwas wegnehmen, kaputtmachen, verstecken
3. an den Haaren ziehen, schlagen, beissen, treten
4. jemanden nicht mitspielen lassen oder nicht neben sich sitzen lassen

Wenn Kinder immer wieder böse sind zu anderen Kindern, so wie auf den Bildern, nennt man das Plagen.

Die folgenden Fragen werden mit Hilfe der Fotos und Namen der Kinder beantwortet. Das Kind wählt die Fotos der genannten Kinder aus. Bei der Frageformulierung statt Täter und Opfer, jeweils die aktuell genannten Namen einsetzen, falls keine Namen erwähnt wurden Frage allgemein formulieren. Bei den Antworten jeweils Nummer der Kinder notieren.

11) Gibt es in deinem Kindergarten Kinder, die andere Kinder plagen? Wer ist das?	⇒	⇒	⇒	⇒	⇒
12) Welche Kinder werden denn geplagt?	⇒	⇒	⇒	⇒	⇒

13) Wirst du auch geplagt? Von wem?

☐1 Nein   ☐2 Ja, von wem? ....

14) Gibt es Kinder, die nicht in deinem Kindergarten sind, die dich plagen?

☐1 Nein   ☐2 Ja, wer? ....

15) Hast du auch schon jemand geplagt? Wen hast du denn geplagt?

☐1 Nein   ☐2 Ja, wer? ....

Alle genannten Kinder in folgende Tabelle eintragen, und für jede einzelne Kombination, alle Fragen stellen. Falls in einer Täter-Opfer-Konstellation mehrere Täter oder Opfer genannt wurden, darf man Fragen für alle Opfer bzw. Täter hintereinanderstellen und die Fragen abkürzen: „Tut denn ... dasselbe wie...?"

3

Täter („T")

Opfer („O")

Frage				
16) Was tut denn „T" mit „O"? Macht er/sie das.... *(Bilder aufzählen)* Sonst noch etwas? *(Mehrere Antworten möglich)*	☐1 Bild 1: verbal ☐2 Bild 2: gegenständlich ☐3 Bild 3: physisch ☐4 Bild 4: isolieren	☐1 Bild 1: verbal ☐2 Bild 2: gegenständlich ☐3 Bild 3: physisch ☐4 Bild 4: isolieren	☐1 Bild 1: verbal ☐2 Bild 2: gegenständlich ☐3 Bild 3: physisch ☐4 Bild 4: isolieren	☐1 Bild 1: verbal ☐2 Bild 2: gegenständlich ☐3 Bild 3: physisch ☐4 Bild 4: isolieren
17) Was tut er/sie denn genau?				
18) Wie häufig tut „T" das? Tut er/sie das (häufig) oder nicht so viel? (Jeden Tag oder nicht jeden Tag, bzw. nur einmal ein paarmal?)	☐1 einmal ☐2 ein paarmal ☐3 nicht jeden Tag ☐4 jeden Tag ☐0 weiss nicht ☐9 Frage nicht verstanden	☐1 einmal ☐2 ein paarmal ☐3 nicht jeden Tag ☐4 jeden Tag ☐0 weiss nicht ☐9 Frage nicht verstanden	☐1 einmal ☐2 ein paarmal ☐3 nicht jeden Tag ☐4 jeden Tag ☐0 weiss nicht ☐9 Frage nicht verstanden	☐1 einmal ☐2 ein paarmal ☐3 nicht jeden Tag ☐4 jeden Tag ☐0 weiss nicht ☐9 Frage nicht verstanden
19) Wo geschieht das? Drinnen oder draussen? (wenn alle zusammen sind mit Kiga, beim freien Spielen, beim Turnen oder Garderobe, bzw. Pausenplatz oder Schulweg *(Mehrfachantworten möglich)*	☐1 beim Zusammensein mit Kindergärtnerin ☐2 beim freien Spiel ☐3 beim Turnen ☐4 Garderobe ☐5 Pausenplatz / Umgebung ☐6 Schulweg ☐7 anderes ☐0 weiss nicht ☐9 Frage nicht verstanden	☐1 beim Zusammensein mit Kindergärtnerin ☐2 beim freien Spiel ☐3 beim Turnen ☐4 Garderobe ☐5 Pausenplatz / Umgebung ☐6 Schulweg ☐7 anderes ☐0 weiss nicht ☐9 Frage nicht verstanden	☐1 beim Zusammensein mit Kindergärtnerin ☐2 beim freien Spiel ☐3 beim Turnen ☐4 Garderobe ☐5 Pausenplatz / Umgebung ☐6 Schulweg ☐7 anderes ☐0 weiss nicht ☐9 Frage nicht verstanden	☐1 beim Zusammensein mit Kindergärtnerin ☐2 beim freien Spiel ☐3 beim Turnen ☐4 Garderobe ☐5 Pausenplatz / Umgebung ☐6 Schulweg ☐7 anderes ☐0 weiss nicht ☐9 Frage nicht verstanden
20) Was meinst du, warum wird „O" von „T" geplagt?				
21) *Emotionsbilder hinlegen:* Was fühlt wohl „O", wenn es geplagt wird? Ist es fröhlich, traurig oder wütend, ist es ihm gleich, fühlt es sich wohl „O" ... oder hat es Angst?	☐1 fröhlich ☐5 gleich(gültig) ☐7 wütend ☐8 traurig ☐3 ängstlich ☐0 weiss nicht ☐9 Frage nicht verstanden	☐1 fröhlich ☐5 gleich(gültig) ☐7 wütend ☐8 traurig ☐3 ängstlich ☐0 weiss nicht ☐9 Frage nicht verstanden	☐1 fröhlich ☐5 gleich(gültig) ☐7 wütend ☐8 traurig ☐3 ängstlich ☐0 weiss nicht ☐9 Frage nicht verstanden	☐1 fröhlich ☐5 gleich(gültig) ☐7 wütend ☐8 traurig ☐3 ängstlich ☐0 weiss nicht ☐9 Frage nicht verstanden
22) Was tut „O", wenn es geplagt wird?				
23) Was machst du, wenn du siehst, dass „O" geplagt wird?				
24) Was tun die anderen Kinder, die sehen, dass „O" geplagt wird?				
25) Was tut die Kindergärtnerin, wenn sie sieht, dass „O" geplagt wird?				

Datum: ....   Uhrzeit: ....

Beginn der Tonbandaufnahme: „Dies ist das zweite Interview mit NN"

31) *Bild mit zwei Elefanten:* Hier habe ich ein Bild von zwei ganz starken Elefanten. Es gibt aber nicht nur ganz starke Tiere, sondern auch Tiere, die nicht so stark sind. Auch bei den Kindern gibt es Starke und weniger Starke. Gehörst du im Kindergarten eher zu den Stärkeren oder zu den weniger Starken? (sehr stark oder stark bzw. nicht so stark oder gar nicht stark?)

☐$_1$ sehr stark
☐$_2$ stark
☐$_3$ manchmal stark, manchmal weniger stark
☐$_4$ nicht so stark
☐$_5$ gar nicht stark
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

32) Möchtest Du gerne stärker sein?
☐$_1$ nein   ☐$_2$ ja   ☐$_0$ weiss nicht

33) Gibt es im Kindergarten Kinder, die viel stärker sind als du? Wer ist das? (Fotos auswählen)

34) Gibt es im Kindergarten Kinder, die viel weniger stark sind als du? Wer ist das? (Fotos auswählen)

35) *Bild mit einem schnellen Gepard:* Hier habe ich ein Bild von einem ganz schnellen Gepard. Auch bei den Kindern gibt es Schnellere und weniger Schnelle. Gehörst Du im Kindergarten eher zu den Schnellen oder zu den weniger Schnellen? (sehr schnell oder schnell, bzw. nicht so schnell oder gar nicht schnell?)

☐$_1$ sehr schnell
☐$_2$ schnell
☐$_3$ manchmal schnell, manchmal weniger schnell
☐$_4$ nicht so schnell
☐$_5$ gar nicht schnell
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

36) Möchtest Du gerne schneller sein?
☐$_1$ nein   ☐$_2$ ja   ☐$_0$ weiss nicht

37) Gibt es im Kindergarten Kinder, die viel schneller sind als du? Wer ist das? (Fotos auswählen)

38) Gibt es im Kindergarten Kinder, die viel weniger schnell sind als du? Wer ist das? (Fotos auswählen)

---

26) *Falls Kind sich selbst als Täter bezeichnete:* Wie gern hast du (alle Opfer vom Kind) (Name einsetzen)? Gern oder nicht so gern? (sehr gern oder gern, bzw. nicht so gern oder gar nicht gern?

Kind:............   Kind:............   Kind:............
☐$_1$ sehr gern
☐$_2$ gern
☐$_3$ manchmal gern, manchmal nicht
☐$_4$ nicht so gern
☐$_5$ gar nicht gern
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

27) *Falls Kind sich selbst als Täter bezeichnete:* Hast du Angst vor (alle Opfer vom Kind) (Name einsetzen)? (viel Angst oder ein bisschen Angst?)

Kind:............   Kind:............   Kind:............
☐$_1$ viel Angst
☐$_2$ ein bisschen Angst
☐$_3$ keine Angst
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

28) *Falls Kind sich selbst als Opfer bezeichnete:* Wie gern hast du (alle Täter vom Kind) (Name einsetzen)? Gern oder nicht so gern? (sehr gern oder gern, bzw. nicht so gern oder gar nicht gern?)

Kind:............   Kind:............   Kind:............
☐$_1$ sehr gern
☐$_2$ gern
☐$_3$ manchmal gern, manchmal nicht
☐$_4$ nicht so gern
☐$_5$ gar nicht gern
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

29) *Falls Kind sich selbst als Opfer bezeichnete:* Hast du Angst vor (alle Täter vom Kind) (Name einsetzen)? (viel Angst oder ein bisschen Angst?)

Kind:............   Kind:............   Kind:............
☐$_1$ viel Angst
☐$_2$ ein bisschen Angst
☐$_3$ keine Angst
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

30) Stab auffangen: (80 cm Stab mit 4 Zonen. Zwei Versuche, der erfolgreichste wird bewertet.)
Zum Schluss für heute machen wir noch ein kleines Spiel: „Steig bitte mal auf deinen Stuhl. Strecke mir bitte einmal eine Hand entgegen. Diesen Stab lasse ich jetzt gleich los, und du sollst ihn dann ganz schnell festhalten. Die andere Hand darfst du dazu nicht benutzen."

☐$_2$ Zone 1

☐$_2$ Zone 4 oder Stab fallengelassen   ☐$_2$ Zone 2 und 3   ☐$_3$ Zone 1

• Danke, dass du mir alle Fragen beantwortet hast. Ich werde dir die anderen Fragen an einem anderen Tag stellen.

• Ich wäre noch froh, wenn du den anderen Kindern nicht erzählst, was ich dich gefragt habe, sonst ist es für die anderen nicht mehr spannend..

39) *Bild mit einem geschickten Affen:* Hier habe ich ein Bild von einem ganz geschickten Affen, er kann gut klettern. Im Kindergarten klettern die Kinder auf dem Klettergerüst (oder Sprossenwand) herum, manche können das gut, andere können das nicht so gut. Kannst du das gut oder nicht so gut? (sehr gut oder gut, *bzw.* nicht so gut oder gar nicht gut?)

$\square_1$ sehr gut
$\square_2$ gut
$\square_3$ manchmal gut, manchmal nicht gut
$\square_4$ nicht so gut
$\square_5$ gar nicht gut
$\square_0$ weiss nicht
$\square_9$ Frage nicht verstanden

40) Möchtest du gerne besser klettern können?

$\square_1$ nein7 $\square_2$ ja $\square_0$ weiss nicht

41) Gibt es im Kindergarten Kinder, die viel besser klettern können als du? Wer ist das?
....

42) Gibt es im Kindergarten Kinder, die viel weniger gut klettern können als du? Wer ist das? *(Fotos auswählen)*
....

43) *Bild von farbigem Pfau:* Hier habe ich ein Bild von einem ganz schönen Pfau. *(Angesichts des eigenen Fotos)* Wenn Du nun Dein Foto betrachtest, gefällst du dir gut oder nicht so gut? (sehr gut oder gut, *bzw.* nicht so gut oder gar nicht gut?)

$\square_1$ sehr gut
$\square_2$ gut
$\square_3$ manchmal gut, manchmal nicht gut
$\square_4$ nicht so gut
$\square_5$ gar nicht gut
$\square_0$ weiss nicht
$\square_9$ Frage nicht verstanden

44) Was gefällt dir an dir?
....

45) Was gefällt dir an dir nicht?
....

46) Bist du gerne oder nicht so gern im Kindergarten? (sehr gern oder gern, *bzw.* nicht so gern oder gar nicht gern?)

$\square_1$ sehr gern
$\square_2$ gern
$\square_3$ manchmal gern, manchmal nicht gern
$\square_4$ nicht so gern
$\square_5$ gar nicht gern
$\square_0$ weiss nicht
$\square_9$ Frage nicht verstanden

47) Haben die anderen Kinder dich gern oder nicht so gern? (sehr gern oder gern, *bzw.* nicht so gern oder gar nicht gern?)

$\square_1$ sehr gern
$\square_2$ gern
$\square_3$ manchmal gern, manchmal nicht gern
$\square_4$ nicht so gern
$\square_5$ gar nicht gern
$\square_0$ weiss nicht
$\square_9$ Frage nicht verstanden

48) Wenn du mit anderen Kindern spielst, wer bestimmt, was ihr macht? Du oder die anderen? (immer du oder ab und zu auch die anderen, *bzw.* manchmal auch du oder immer die anderen?)

$\square_1$ immer ich
$\square_2$ mehr ich als die anderen
$\square_3$ manchmal ich, manchmal die anderen
$\square_4$ mehr die anderen als ich
$\square_5$ immer die anderen
$\square_0$ weiss nicht
$\square_9$ Frage nicht verstanden

49) Kommt es vor dass du vor den andern Kindern Angst hast? (sehr viel oder viel, *bzw.* fast nie oder gar nie?)

$\square_1$ sehr viel
$\square_2$ viel
$\square_3$ manchmal
$\square_4$ fast nie
$\square_5$ gar nie
$\square_0$ weiss nicht
$\square_9$ Frage nicht verstanden

50) *Falls viel oder sehr viel:* Vor wem hast du Angst?
....

51) Kommst das vor, dass du dich im Kindergarten alleine fühlst? (sehr viel oder viel, *bzw.* fast nie oder gar nie?)

$\square_1$ sehr viel
$\square_2$ viel
$\square_3$ manchmal
$\square_4$ fast nie
$\square_5$ gar nie
$\square_0$ weiss nicht
$\square_9$ Frage nicht verstanden

52) Wenn du mit anderen Kindern spielen willst, kommt es vor, dass sie dich nicht mitspielen lassen? (sehr viel oder viel; *bzw.* fast nie oder gar nie)

$\square_1$ sehr viel
$\square_2$ viel
$\square_3$ manchmal
$\square_4$ fast nie
$\square_5$ gar nie
$\square_0$ weiss nicht
$\square_9$ Frage nicht verstanden

53) Punktieren (Tapping): *(Material: weisses A4-Blatt, Filzstift, Uhr mit Sekundenzeiger. Die Interviewerin, der Interviewer macht dem Kind das Punktieren vor)*

Jetzt machen wir ein kleines Spiel: „Nimm den Filzstift in eine Hand und versuche, möglichst schnell ganz viele Punkte auf dieses Blatt Papier zu machen. Lass Deinen Arm ruhig auf dem Tisch liegen. Versuche, die Punkte nicht alle auf einen Haufen zu machen, so dass ich sie nachher zählen kann. Du darfst so lange Punkte machen, bis ich „halt" sage. Jetzt fang an!"

$\square_1$ 26 und weniger Punkte $\square_2$ 27-37 Punkte $\square_3$ 38 und mehr Punkte

Was ist mit „Plagen" gemeint?

Mit Plagen ist eine besondere Form der Gewalt unter Gleichaltrigen gemeint. Plagen ist, wenn ein Kind wiederholt und über längere Zeit hinweg den negativen Handlungen eines oder mehrerer Kinder ausgesetzt ist. Als negative Handlungen bezeichnet man alle Verhaltensweisen, mit denen einem anderen absichtlich Schaden oder Beschwerden zugefügt werden.
Diese negativen Handlungen können sich in einer direkten oder indirekten Form zeigen.

Die *direkte* Form beinhaltet:
- physische Angriffe wie z.B. schlagen, stossen, treten, kneifen, festhalten, einsperren
- verbale Handlungen wie z.B. drohen, hänseln, spotten, beschimpfen

Unter *indirekten* Formen von Plagen findet man vor allem das <u>systematische Ausschliessen</u> aus der Kindergruppe, d.h. den Gebrauch von sozialer Isolierung.

Zusätzlich bezeichnet man auch das Verstecken oder Zerstören von Gegenständen eines Kindes als Plagen.

Die Beziehung zwischen plagendem und geplagtem Kind, d.h. zwischen Täter und Opfer, ist asymmetrisch. Das Opfer kann sich nicht richtig wehren und ist dem Täter gegenüber hilflos.

Ein Kind kann sowohl von einem einzelnen als auch von einer ganzen Gruppe von Kindern geplagt werden. Aber auch eine ganze Gruppe von Kindern kann Opfer von Plagen werden.
Es kann vorkommen, dass ein Kind Täter und Opfer zugleich ist, d.h. dass es plagt und auch geplagt wird.

Es ist nicht plagen, wenn zwei gleich starke Kinder miteinander kämpfen oder sich z.B. gegenseitig hänseln.

---

54) Es gibt Kinder, die sind gerne so wie sie sind, anderer Kinder wären gern͜ ͜ders. Gehörst du zu den Kindern, die gerne so sind, wie sie sind, oder wärest du lieber anders. (ganz gleich oder ein bisschen gleich *bzw.* ein bisschen anders oder ganz anders?)

☐$_1$ ganz gleich
☐$_2$ ein bisschen gleich
☐$_3$ manchmal gleich, manchmal anders
☐$_4$ ein bisschen anders
☐$_5$ ganz anders
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

55) Es gibt Kinder, die meinen, dass das was sie tun richtig (recht) ist, andere Kinder meinen, dass das was sie tun falsch ist. Gehörst du zu den Kindern, die meinen, dass das was sie tun richtig ist, oder gehörst du zu den Kindern, die meinen, dass das was sie tun falsch ist? (ganz richtig oder ein bisschen richtig *bzw.* ein bisschen falsch oder ganz falsch?)

☐$_1$ ganz richtig
☐$_2$ ein bisschen richtig
☐$_3$ manchmal richtig, manchmal falsch
☐$_4$ ein bisschen falsch
☐$_5$ ganz falsch
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

56) Es gibt Kinder können viele Sachen (Dinge) gut, andere Kinder können nur wenige Sachen gut. Gehörst du zu den Kindern, die viele Sachen gut können, oder zu den Kindern, die nur wenige Sachen gut können? (alles gut oder viel gut *bzw.* wenig gut oder nichts gut?)

☐$_1$ alles
☐$_2$ viel
☐$_3$ unsicher
☐$_4$ wenig
☐$_5$ nichts
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

57) Es gibt Kinder, die sind ganz toll („feini"), andere Kinder sind nicht so toll („feini"). Gehörst du zu den Kindern, die ganz toll sind, oder zu den Kindern, die nicht so toll sind? (ganz toll oder ein toll *bzw.* nicht so toll oder gar nicht toll?)

☐$_1$ ganz toll
☐$_2$ ein bisschen toll
☐$_3$ manchmal toll, manchmal nicht toll
☐$_4$ nicht so toll
☐$_5$ gar nicht toll
☐$_0$ weiss nicht
☐$_9$ Frage nicht verstanden

Abschluss:

• Danke, dass du mir alle Fragen beantwortet hast.
• Ich wäre noch froh, wenn du den anderen Kindern nicht erzählst, was ich dich gefragt habe, sonst ist es für die anderen nicht mehr spannend.

Kommentar: ....

....

1. fröhlich 2. gleichgültig 3. wütend 4. traurig 5. ängstlich

I II III IV

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Kindergärtnerinnenfragebogen zum „Plagen im Kindergarten"

Allgemeine Beurteilung von Kindern im Vorschulalter

Es folgen nun verschiedene Aussagen, die auf das betreffende Kind unterschiedlich gut zutreffen. Wir bitten Sie, anzugeben, wie gut jede Aussage zum jeweiligen Kind passt und eine der Antwortalternativen mit einem Kreuz zu markieren.

Die Aussage...

	trifft gar nicht zu	trifft eher nicht zu	stimmt teils, teils nicht	trifft eher zu	trifft genau zu
1) Fühlt sich wohl in Gruppen von Gleichaltrigen.	□₁	□₂	□₃	□₄	□₅
2) Zeigt Durchhaltevermögen bei Aufgaben, auch wenn es gestört wird.	□₁	□₂	□₃	□₄	□₅
3) Teilt bereitwillig mit anderen.	□₁	□₂	□₃	□₄	□₅
4) Spielt lieber alleine.	□₁	□₂	□₃	□₄	□₅
5) Findet leicht Freunde.	□₁	□₂	□₃	□₄	□₅
6) Zeigt wenig Konzentration bei der Bearbeitung von Aufgaben.	□₁	□₂	□₃	□₄	□₅
7) Muss dazu ermuntert werden, Aufgaben fertig zu machen.	□₁	□₂	□₃	□₄	□₅
8) Hilft oft anderen Kindern.	□₁	□₂	□₃	□₄	□₅
9) Hat Angst vor vielen Kindergartensituationen.	□₁	□₂	□₃	□₄	□₅
10) Hat viele Freunde.	□₁	□₂	□₃	□₄	□₅
11) Scheint ein positives Selbstkonzept zu haben.	□₁	□₂	□₃	□₄	□₅
12) Ist bereit zu warten, bis es an der Reihe ist.	□₁	□₂	□₃	□₄	□₅

	trifft gar nicht zu	trifft eher nicht zu	stimmt teils, teils nicht	trifft eher zu	trifft genau zu
13) Tritt, beisst oder schlägt andere Kinder.	□₁	□₂	□₃	□₄	□₅
14) Ungängliches Kind.	□₁	□₂	□₃	□₄	□₅
15) Ist verschlossen.	□₁	□₂	□₃	□₄	□₅
16) Arbeitet mit Ausdauer an Aufgaben.	□₁	□₂	□₃	□₄	□₅
17) Ist anderen Kindern gegenüber freundlich.	□₁	□₂	□₃	□₄	□₅
18) Ist gerne alleine.	□₁	□₂	□₃	□₄	□₅
19) Hat Mühe sich auf Aufgaben zu konzentrieren.	□₁	□₂	□₃	□₄	□₅
20) Arbeitet selbständig an Aufgaben.	□₁	□₂	□₃	□₄	□₅
21) Übernimmt die Initiative, um mit anderen Kindern ins Gespräch zu kommen.	□₁	□₂	□₃	□₄	□₅
22) Ängstlich in Gleichaltrigengruppen.	□₁	□₂	□₃	□₄	□₅
23) Kann Freundschaften aufrechterhalten.	□₁	□₂	□₃	□₄	□₅
24) Kann Konzentration über längere Zeit aufrechterhalten.	□₁	□₂	□₃	□₄	□₅
25) Muss von Erwachsenen erinnert werden, Aufgaben weiter zu bearbeiten.	□₁	□₂	□₃	□₄	□₅
26) Zeigt den anderen Kindern gegenüber Mitgefühl.	□₁	□₂	□₃	□₄	□₅
27) Zieht sich vor anderen Kindern zurück.	□₁	□₂	□₃	□₄	□₅
28) Beklagt sich darüber, in den Kindergarten gehen zu müssen.	□₁	□₂	□₃	□₄	□₅
29) Hört den anderen Kindern zu.	□₁	□₂	□₃	□₄	□₅
30) Akzeptiert die Ideen Gleichaltriger bei Gruppenaktivitäten.	□₁	□₂	□₃	□₄	□₅
31) Ist ein Einzelgänger.	□₁	□₂	□₃	□₄	□₅
32) Prahlt oft vor Gleichaltrigen.	□₁	□₂	□₃	□₄	□₅
33) Scheint den Kindergarten zu mögen.	□₁	□₂	□₃	□₄	□₅
34) Befolgt die Instruktionen der Kindergärtnerin.	□₁	□₂	□₃	□₄	□₅

	trifft gar nicht zu	trifft eher nicht zu	stimmt teils, teils nicht	trifft eher zu	trifft genau zu
35) Wird von anderen ignoriert. Die Gleichaltrigen nehmen selten Kontakt mit ihm auf.	□1	□2	□3	□4	□5
36) Weint leicht.	□1	□2	□3	□4	□5
37) Schaut lieber zu, als bei Gruppenaktivitäten mitzumachen.	□1	□2	□3	□4	□5
38) Ist Gleichaltrigen gegenüber aggressiv.	□1	□2	□3	□4	□5
39) Beschuldigt andere.	□1	□2	□3	□4	□5
40) Passt auf, wenn die Kindergärtnerin spricht.	□1	□2	□3	□4	□5
41) Scheint sich bei Erwachsenen wohler zu fühlen als bei Gleichaltrigen.	□1	□2	□3	□4	□5
42) Geht in Konflikten mit Gleichaltrigen Kompromisse ein.	□1	□2	□3	□4	□5
43) Zerstört eigene oder fremde Sachen.	□1	□2	□3	□4	□5
44) Hüpft von einer Tätigkeit zur anderen.	□1	□2	□3	□4	□5
45) Unterhält sich leicht mit Gleichaltrigen.	□1	□2	□3	□4	□5
46) Organisiert und schlägt seinen Kollegen Spielaktivitäten vor.	□1	□2	□3	□4	□5
47) Spaziert während Spielaktivitäten ziellos umher.	□1	□2	□3	□4	□5
48) Kooperiert mit Gleichaltrigen.	□1	□2	□3	□4	□5
49) Fragt häufig danach, wann es Zeit ist, um nach Hause zu gehen.	□1	□2	□3	□4	□5
50) Kontaktfreudig in Gruppensituationen.	□1	□2	□3	□4	□5
51) Hat eine kurze Aufmerksamkeitsspanne.	□1	□2	□3	□4	□5
52) Anführer in Gruppensituationen.	□1	□2	□3	□4	□5
53) Tröstet andere wenn notwendig.	□1	□2	□3	□4	□5
54) Ist bekümmert. Macht sich um viele Dinge Sorgen.	□1	□2	□3	□4	□5
55) Hat eine enge Freundin oder einen engen Freund.	□1	□2	□3	□4	□5
56) Die meisten mögen sie/ihn.	□1	□2	□3	□4	□5

	trifft gar nicht zu	trifft eher nicht zu	stimmt teils, teils nicht	trifft eher zu	trifft genau zu
57) Scheint unglücklich, betrübt.	□1	□2	□3	□4	□5
58) Beschimpft andere Kinder oder schreit sie an.	□1	□2	□3	□4	□5
59) Hält sich an die Regeln.	□1	□2	□3	□4	□5
60) Wirkt selbstsicher.	□1	□2	□3	□4	□5
61) Bleibt an einer Aufgabe, bis sie beendet ist.	□1	□2	□3	□4	□5
62) Kann anderen gegenüber Grenzen setzen.	□1	□2	□3	□4	□5
63) Widersetzt sich unpassenden Forderungen anderer.	□1	□2	□3	□4	□5
64) Erzählt Lügen.	□1	□2	□3	□4	□5
65) Hat Sprachschwierigkeiten.	□1	□2	□3	□4	□5
66) Klagt oft über Kopfweh.	□1	□2	□3	□4	□5
67) Kann sich wehren.	□1	□2	□3	□4	□5
68) Hat einen grossen Wortschatz.	□1	□2	□3	□4	□5
69) Klagt oft über Bauchweh.	□1	□2	□3	□4	□5
70) Wirkt einsam.	□1	□2	□3	□4	□5
71) Stottert oder stammelt.	□1	□2	□3	□4	□5

Fragen zum Medienkonsum

1) Ist Ihnen schon einmal aufgefallen, dass das Kind Medienfiguren im Rollenspiel nachspielt?

□1 nein

□2 ja, welche Figuren?.....................................

2) Sind diese Figuren Ihrer Meinung nach...

□1 eher aggressiv

□2 eher lustig

□3 eher unzugänglich (prosozial)

Fragen zum motorischen Verhalten

Sie finden hier eine Liste von Eigenschaftswörtern, die sich zur Beschreibung des motorischen Verhaltens von Kindern verwenden lassen. Geben Sie die Antwort, die Ihnen unmittelbar in den Sinn kommt und lassen Sie bitte kein Eigenschaftswort aus!

Die Aussage...

Das Bewegungsverhalten des Kindes in selbstgewählten (Bewegungs-)Aufgaben ist...	trifft gar nicht zu	trifft eher nicht zu	stimmt teils, teils nicht	trifft eher zu	trifft genau zu
1) elegant	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
2) überschiessend	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
3) konstant	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
4) ängstlich	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
5) tolpatschig	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
6) graziös	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
7) zappelig	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
8) gleichmässig	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
9) verhalten	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
10) aktiv	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
11) gewandt	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
12) sprunghaft	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
13) bewegungsgehemmt	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
14) staksig	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
15) anmutig	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
16) ablenkbar	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
17) zaghaft	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
18) anstrengungsfreudig	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
19) unbeholfen	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
20) ruhig	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
21) bewegungsfreudig	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
22) eckig	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
23) konzentriert	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
24) lebhaft	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$

Fragen zum Plagen im Kindergarten

Unter Plagen verstehen wir die Situation, dass ein Kind wiederholt und über längere Zeit den negativen Handlungen eines oder mehrerer Kinder ausgesetzt ist. Plagen kann physisch oder verbal geschehen, aber auch durch Ausschliessen aus der Kindergruppe.

1) Das Kind hat niemandem in der Gruppe, mit dem es zusammen sein kann.
   - $\square_1$ nie
   - $\square_2$ selten
   - $\square_3$ einmal oder mehrmals pro Monat
   - $\square_4$ ungefähr einmal die Woche
   - $\square_5$ mehrmals die Woche

2) Das Kind wird physisch geplagt (geschlagen, getreten, gekniffen, gebissen...).
   - $\square_1$ nie
   - $\square_2$ selten
   - $\square_3$ einmal oder mehrmals pro Monat
   - $\square_4$ ungefähr einmal die Woche
   - $\square_5$ mehrmals die Woche

3) Das Kind wird verbal geplagt (ausgelacht, beschimpft, gehänselt...).
   - $\square_1$ nie
   - $\square_2$ selten
   - $\square_3$ einmal oder mehrmals pro Monat
   - $\square_4$ ungefähr einmal die Woche
   - $\square_5$ mehrmals die Woche

4) Das Kind wird von den anderen Kindern ausgeschlossen.
   - $\square_1$ nie
   - $\square_2$ selten
   - $\square_3$ einmal oder mehrmals pro Monat
   - $\square_4$ ungefähr einmal die Woche
   - $\square_5$ mehrmals die Woche

5) Dem Kind werden Dinge versteckt oder kaputtgemacht.

□1 nie

□2 selten

□3 einmal oder mehrmals pro Monat

□4 ungefähr einmal die Woche

□5 mehrmals die Woche

6) Das Kind plagt andere Kinder physisch (schlägt, tritt, kneift, beisst...).

□1 nie

□2 selten

□3 einmal oder mehrmals pro Monat

□4 ungefähr einmal die Woche

□5 mehrmals die Woche

7) Das Kind plagt andere Kinder verbal (lacht aus, beschimpft, hänselt...).

□1 nie

□2 selten

□3 einmal oder mehrmals pro Monat

□4 ungefähr einmal die Woche

□5 mehrmals die Woche

8) Das Kind schliesst andere Kinder aus.

□1 nie

□2 selten

□3 einmal oder mehrmals pro Monat

□4 ungefähr einmal die Woche

□5 mehrmals die Woche

9) Das Kind versteckt Dinge von anderen Kindern oder macht ihnen Gegenstände kaputt.

□1 nie

□2 selten

□3 einmal oder mehrmals pro Monat

□4 ungefähr einmal die Woche

□5 mehrmals die Woche

Fragen zu ausländischen und / oder fremdsprachigen Kindern

1) Wie gut spricht das Kind schriftdeutsch?

□1 spricht kein schriftdeutsch

□2 spricht ein bisschen schriftdeutsch

□3 spricht recht gut schriftdeutsch

□4 spricht sehr gut schriftdeutsch

2) Wie gut spricht das Kind Mundart?

□1 spricht nicht Mundart

□2 spricht ein bisschen Mundart

□3 spricht recht gut Mundart

□4 spricht sehr gut Mundart

3) Wie gut versteht das Kind schriftdeutsch?

□1 versteht kein schriftdeutsch

□2 versteht ein bisschen schriftdeutsch

□3 versteht recht gut schriftdeutsch

□4 versteht sehr gut schriftdeutsch

4) Wie gut versteht das Kind Mundart?

□1 versteht nicht Mundart

□2 versteht ein bisschen Mundart

□3 versteht recht gut Mundart

□4 versteht sehr gut Mundart

5) Haben Sie das Gefühl, das Kind sei gut in die schweizerische Kultur integriert?

□1 gar nicht integriert

□2 ein bisschen integriert

□3 recht gut integriert

□4 sehr gut integriert

6) Haben Sie das Gefühl, die Eltern des Kindes seien gut in die schweizerische Kultur integriert?

□1 gar nicht integriert

□2 ein bisschen integriert

□3 recht gut integriert

□4 sehr gut integriert

7) Gibt es kulturelle Unterschiede, die Ihnen beim Kind besonders auffallen (Kleidung, Religion, Verhalten)

□1 nein

□2 ja, welche? ....

....

....

Appendix B: Observation

1. Coding manual (German: Kodieranweisungen)
2. Coding Schemes (German: Kodierschemas)
3. Descriptive Results

Kodieranweisungen

1. Material:

   - 2 Versionen des zugeteilten Protokollbogens (siehe sep. Liste)
   - Kodieranweisungen mit aktueller Version der Entscheidungsregeln
   - Kodierschemas
   - Leuchtstifte (gelb, rot, blau), Bleistift und Radiergummi, Filzstift, Notizpapier

2. Beschrifte den Protokollbogen mit Deinem Namen und dem Datum. Lies zuerst beide Protokolle und *markiere alle Interaktionssequenzen mit Leuchtstift. (gelb) Vergleiche die Interaktionssequenzen der beiden Protokolle auf Übereinstimmung.* Falls Interaktionen nur in einem Protokoll beschrieben sind, nimmt man diese Beschreibung als zusätzliche Informationen (rot markieren). Die Wahrnehmung der beiden Beobachterinnen können sich gegenseitig ergänzen, da ja nicht immer beide vom gleichen Standort aus beobachtet haben. Falls die gleiche Interaktionssequenz unterschiedlich beschrieben wird, (z.B.: neutral oder positiv, oder nicht das gleiche Kind), wird die Interaktion unkodierbar. (blau markieren). *Wähle eines der Protokolle aus und benutze das andere nur noch für ergänzende Informationen.*

3. Jetzt kannst Du mit der Kodierung beginnen. Von jeder Protokollsequenz (*** kennzeichnet der Beginn einer neuen Sequenz) werden die Interaktionen nach Initiierung und Reaktion aufgesplittet. Schreibe die Entscheidungen neben die jeweilige Interaktionssequenz (z. B.: F+05; F-K, GG=F; 99?F). Nachdem alle Interaktionen kodiert wurden, kannst Du die Ergebnisse in das Kodierschema 1 übertragen. (Kontrolle: es müssen gleichviele Initiierungen wie Reaktionen vermerkt sein). *Zusätzlich werden die fehlenden Kind durchgestrichen.*

4. Nimm eine neue Version des Protokollbogens und lies jede Protokollsequenz einzeln durch und beantworte die Fragen auf Kodierschema 2.

5. Lies das Protokoll nochmal am Stück durch und beantworte die letzten drei Fragen auf Kodierschema 3.

6. Notiere alle Unklarheiten und Deine Entscheidungen, dies wird dann gemeinsam diskutiert.

7. Hefte den beschrifteten Protokollbogen und die Kodierschemas zusammen.

Erklärung zu den Begriffen in den Kodierschemas

Kodierschema 1: Initiierung und Reaktionen

Interaktion, Initiierung, Reaktion

Interaktion meint wechselseitige Beeinflussung, gemeinsames Handeln und/oder verbale oder nonverbale Kommunikation. Initiierung ist Beginn der Interaktion, Reaktion ist die Antwort auf diesen Kontaktversuch. Eine Initiierung kann stattfinden, ohne dass eine Reaktion folgt. Hier ist keine vollständige Interaktion, aber es hat ein Versuch stattgefunden, somit wird es trotzdem kodiert.

a) Positive Initiierung: Ein Kind, die Kindergärtnerin oder eine Gruppe von Kindern initiiert eine Interaktion auf eine positive Art (z. B.: helfen, trösten, teilen, Einladung zum Spiel, höfliche Bitte...)

b) Neutrale Initiierung: Ein Kind, die Kindergärtnerin oder eine Gruppe von Kindern initiiert eine Interaktion auf eine neutrale Art (z. B.: eine Information erfragen, eine Aufforderung machen, zusammen spielen...)

c) Negative Initiierung: Ein Kind, die Kindergärtnerin oder eine Gruppe von Kindern initiiert eine Interaktion auf eine negative Art (z. B.: wegstossen, gemeine Dinge sagen, etwas wegnehmen, stören...)

d) Unkodierbar: Eine Initiierung ist unkodierbar, wenn nicht notiert wurde, und die Initiierung auch nicht aus dem beschriebenen Verhalten inferierbar ist. Falls die gleiche Interaktionssequenz in den beiden Protokollen unterschiedlich beschrieben wird, (z.B.: neutral oder positiv), wird die Initiierung unkodierbar. Wenn nicht das gleiche Kind oder kein Kind genannt wurde, ist es als eine Initiierung mit unbekannt kodiert.

e) Positive Reaktion: Ein Kind, die Kindergärtnerin oder eine Gruppe von Kindern reagiert auf eine Initiierung auf eine positive Art (z. B.: teilen, trösten, helfen, Mitgefühl zeigen...)

f) Neutrale Reaktion: Ein Kind, die Kindergärtnerin oder eine Gruppe von Kindern reagiert auf eine Initiierung auf eine neutrale Art (z. B.: Information geben, gemeinsam spielen, sich an Regeln halten...)

g) Negative Reaktion: Ein Kind, die Kindergärtnerin oder eine Gruppe von Kindern reagiert auf eine Initiierung auf eine positive Art (z. B.: schlagen, aktives Ignorieren, böse Dinge sagen...)

h) Keine Reaktion: Ein Kind, die Kindergärtnerin oder eine Gruppe von Kindern reagiert nicht auf eine Initiierung (z. B.: nicht reagieren, die Tätigkeit geht einfach weiter...)

i) Unkodierbar: Eine Reaktion ist unkodierbar, wenn nichts notiert wurde, und die Reaktion auch nicht aus dem beschriebenen Verhalten inferierbar ist. Falls die gleiche Interaktionssequenz in den beiden Protokollen unterschiedlich beschrieben wird, (z.B.: neutral oder positiv), wird die Reaktion unkodierbar. Wenn nicht das gleiche Kind oder kein Kind genannt wurde, ist es als eine Reaktion von unbekannt kodiert.

Kodierschema 2: Globale Ratings zum Sozialverhalten

1. Quantität der sozialen Interaktionen

Diese Frage meint, wieviel das Kind an sozialen Interaktionen beteiligt war (nicht nur Iniitierung, sondern global).

a) wenig: das Kind hat die meiste Zeit alleine gespielt; es ist im Zimmer herumspaziert; es hat einige Male versucht Kontakt zu knüpfen, aber es ist keine längere Interaktionssequenz gefolgt.

b) mittel: das Kind hat die Hälfte der Zeit alleine gespielt, die andere Hälfte der Zeit mit einem anderen Kind; das Kind hat passiv an einer strukturierten Tätigkeit im Kreis teilgenommen.

c) viel: das Kind hat die ganze Zeit mit einer Gruppe von Kindern gespielt; es hat aktiv an einer strukturierten Tätigkeit mitgemacht.

2. Wie geht das Kind mit den anderen Kindern um?

Diese Frage bezieht sich auf den globalen Umgang der Kinder miteinander, die Qualität der sozialen Interaktionen.

a) negativ: der Umgang des Fokuskind mit den anderen war eher aggressiv oder ablehnend

b) neutral: der Umgang des Fokuskind mit den anderen war weder negativ noch positiv

c) positiv: der Umgang des Fokuskindes mit den anderen war eher prosozial und kooperativ

3. Wie gehen die anderen Kinder mit dem Fokuskind um?

Diese Frage bezieht sich auf den globalen Umgang der Kinder miteinander, die Qualität der sozialen Interaktionen:

a) negativ: der Umgang der anderen Kinder mit dem Fokuskind war eher aggressiv oder ablehnend

b) neutral: der Umgang der anderen Kinder mit dem Fokuskind war weder negativ noch positiv

c) positiv: der Umgang der anderen mit dem Fokuskindes war eher prosozial und kooperativ

4. War das Kind den anderen gegenüber dominant, hat es eine Führungsposition innegehabt?

a) gar nicht: das Kind war den anderen gegenüber gar nicht dominant, es konnte seinen Willen nie durchsetzen, es hat nie über andere bestimmt.

b) eher ja: das Kind war ein wenig dominant, hat einige Male bestimmt oder befohlen

c) ja, sehr : das Kind hat eindeutig eine Führungsposition, es bestimmt über die anderen und wirkt sehr dominant.

5. Kann sich das Kind gegenüber Forderungen durchsetzen, kann es Grenzen setzen?

a) gar nicht: das Kind kann sich nicht wehren, kann sich Forderungen anderer nicht widersetzen, es lässt sich herumkommandieren.

b) eher ja: das Kind kann sich den anderen gegenüber ein wenig durchsetzen, seine Meinung vertreten, nimmt aber trotzdem Vorschläge von anderen an.

c) ja, sehr: das Kind kann sich sehr gut durchsetzen und sich wehren, lässt sich nicht herumkommandieren.

6. Welche Spielkategorien waren beim Kind beobachtbar?

Bei dieser Frage sind mehrere Antworten möglich, welche der folgenden Kategorien ist während der Protokollsequenz vorgekommen.

a) Zuschauendes Verhalten: Das Kind läuft herum oder sitzt und schaut den anderen Kindern zu, ohne Kontakt aufzunehmen.

b) Alleinspiel: Das Kind spielt oder beschäftigt sich alleine.

c) Paralleles oder interaktives Spiel: Das Kind spielt oder spricht mit anderen Kindern. Beim Parallelen Spiel kommt keine Interaktion zustande, aber das Kind spielt neben einem anderen mit dem gleichen Spielzeug.

d) Strukturierte Tätigkeit: War das Kind an einer Tätigkeit in der Gruppe (z. B.: Znüni oder Kreisspiel) beteiligt?

7. Ausmass der von der Kindergärtnerin angeleiteten Tätigkeit?

a) wenig: die Kindergärtnerin gibt dem Kind keine Anweisungen, was es tun soll

b) mittel: die Kindergärtnerin gibt ab und zu Anweisungen was es tun soll, oder die Hälfte der Zeit war eine strukturierte Tätigkeit.

c) viel: die Kindergärtnerin gibt viele Anweisungen, was das beobachtete Kind tun oder spielen soll, oder es findet eine strukturierte Tätigkeit in der Gruppe statt.

Kodierschema 3: Globale Ratings zum Plagen

1. Zeigt das Fokuskind in der Beziehung zu den anderen Kindern die Tendenz ein Täter/eine Täterin zu sein? (powerful)

a) überhaupt nicht: das Kind hat keine Tendenz zum Täter sein.

b) leichte Tendenz: das Kind hat eine leichte Tendenz zum Täter sein.

c) starke Tendenz: das Kind hat starke Tendenzen zum Täter sein.

2. Falls leichte oder starke Tendenz: Gegenüber welchen Kindern ist das Kind ein Täter oder eine Täterin?

Markiere die vermuteten Opfer des Kindes. (Diese Tabelle kann auch leer bleiben.)

3. Zeigt das Fokuskind in der Beziehung zu den anderen Kindern die Tendenz ein Opfer zu sein? (powerless)

a) überhaupt nicht: das Kind hat keine Tendenz zum Opfer sein.

b) leichte Tendenz: das Kind hat eine leichte Tendenz zum Opfer sein.

c) starke Tendenz: das Kind hat starke Tendenzen zum Opfer sein.

4. Falls leichte oder starke Tendenz: Gegenüber welchen Kindern ist das Kind ein Opfer?

Markiere die vermuteten Täter des Kindes. (Diese Tabelle kann auch leer bleiben.)

5. Ist das Fokuskind gut in die Gruppe integriert oder ist es isoliert?

a) isoliert: das Kind ist isoliert, ist von der Gruppe nicht aufgenommen.

b) ein bisschen integriert: das Kind ist ein bisschen integriert, scheint zur Gruppe dazuzugehören, aber nicht so gut wie andere Kinder.

c) gut integriert: das Kind ist sehr gut in der Gruppe integriert und aufgenommen.

6. Bemerkungen zum Kind

Hier kann man alles notieren, was einem während des Kodierens noch aufgefallen ist. Bemerkungen zum Kind, Eindrücke und Zusatzinformationen, die beim Kodieren nicht berücksichtigt wurden, aber wichtig scheinen. Hier kann man auch notieren, wenn man während dem Lesen „Plagensequenzen" gefunden hat.

Soziale Interaktionen: Kodierschema 1

Fokuskind: _____ Protokollnummer: 1 2 3 Kodiererin: sp kh Datum: _____

Protokollsequenz 1

Initiierung		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	K	MM	BB	MB	?
vom	☺ positiv																										
Fokuskind	☻ neutral																										
zu den	☹ negativ																										
anderen	unkodierbar																										

Reaktionen																												
	☺ positiv																										
der anderen	☻ neutral																										
zum	☹ negativ																										
Fokuskind	keine Reaktion																										
	unkodierbar																										

Initiierung		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	K	MM	BB	MB	?
der anderen	☺ positiv																										
zum	☻ neutral																										
Fokuskind	☹ negativ																										
	unkodierbar																										

Reaktionen																												
des	☺ positiv																										
Fokuskinds	☻ neutral																										
zu den	☹ negativ																										
anderen	keine Reaktion																										
	unkodierbar																										

Protokollsequenz 2

Initiierung		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	K	MM	BB	MB	?
vom	☺ positiv																										
Fokuskind	☻ neutral																										
zu den	☹ negativ																										
anderen	unkodierbar																										

Reaktionen																												
	☺ positiv																										
der anderen	☻ neutral																										
zum	☹ negativ																										
Fokuskind	keine Reaktion																										
	unkodierbar																										

Initiierung		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	K	MM	BB	MB	?
der anderen	☺ positiv																										
zum	☻ neutral																										
Fokuskind	☹ negativ																										
	unkodierbar																										

Reaktionen																												
des	☺ positiv																										
Fokuskinds	☻ neutral																										
zu den	☹ negativ																										
anderen	keine Reaktion																										
	unkodierbar																										

Soziale Interaktionen: Kodierschema 2

Fokuskind: _____ Protokollnummer: 1 2 3 Kodiererin: sp kh Datum: _____

Protokollsequenz 1

1. Quantität der sozialen Interaktion	wenig ①	mittel ②	viel ③	unklar ❾
2. Wie geht das Fokuskind mit den anderen Kindern um?	negativ ①	neutral ②	positiv ③	unklar ❾
3. Wie gehen die anderen Kinder mit dem Fokuskind um?	negativ ①	neutral ②	positiv ③	unklar ❾
4. War das Kind gegenüber den anderen dominant, hat es eine Führungsposition gehabt?	eher nein ①	eher ja ②	ja, sehr ③	unklar ❾
5. Kann sich das Kind gegenüber Forderungen anderer durchsetzen? (Grenzen setzen)	eher nein ①	eher ja ②	ja, sehr ③	unklar ❾
6. Welche Spielkategorien waren beim Kind beobachtbar? (Mehrfachantwort möglich)	Zuschauendes Verhalten ①	Alleinspiel ①	Interaktives oder Paralleles Spiel ①	Strukturierte Tätigkeit ①
7. Wie stark steuert die Kindergärtnerin das Verhalten des Fokuskindes?	wenig ①	mittel ②	viel ③	unklar ❾

Protokollsequenz 2

1. Quantität der sozialen Interaktion	wenig ①	mittel ②	viel ③	unklar ❾
2. Wie geht das Fokuskind mit den anderen Kindern um?	negativ ①	neutral ②	positiv ③	unklar ❾
3. Wie gehen die anderen Kinder mit dem Fokuskind um?	negativ ①	neutral ②	positiv ③	unklar ❾
4. War das Kind gegenüber den anderen dominant, hat es eine Führungsposition gehabt?	eher nein ①	eher ja ②	ja, sehr ③	unklar ❾
5. Kann sich das Kind gegenüber Forderungen anderer durchsetzen? (Grenzen setzen)	eher nein ①	eher ja ②	ja, sehr ③	unklar ❾
6. Welche Spielkategorien waren beim Kind beobachtbar? (Mehrfachantwort möglich)	Zuschauendes Verhalten ①	Alleinspiel ①	Interaktives oder Paralleles Spiel ①	Strukturierte Tätigkeit ①
7. Wie stark steuert die Kindergärtnerin das Verhalten des Fokuskindes?	wenig ①	mittel ②	viel ③	unklar ❾

Soziale Interaktionen: Kodierschema 3

Fokuskind: _____ Protokollnummer: 1 2 3 Kodiererin: sp kh Datum: _____

1. Zeigt das Fokuskind in der Beziehung zu den anderen Kindern die Tendenz ein Täter/eine Täterin zu sein? (powerful)	eher nein ①	leichte Tendenz ②	starke Tendenz ③	unklar ❾

2. Falls leichte oder starke Tendenz: Gegen¸ber welchen Kindern ist das Kind ein Täter oder Täterin?

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	MM	BB	MB
leichte Tendenz	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①
starke Tendenz	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②

3. Zeigt das Fokuskind in der Beziehung zu den anderen Kindern die Tendenz ein Opfer zu sein? (powerless)	eher nein ①	leichte Tendenz ②	starke Tendenz ③	unklar ❾

4. Falls leichte oder starke Tendenz: Gegenüber welchen Kindern ist das Kind ein Opfer?

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	MM	BB	MB
leichte Tendenz	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①
starke Tendenz	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②

5. Ist das Fokuskind gut in die Gruppe integriert oder ist es isoliert?	eher isoliert ①	nicht so gut integriert ②	gut integriert ③	unklar ❾

6. Bemerkungen zum Kind (vor allem bezüglich Plagen)

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Observations: Descriptive Results By Focal Child

1) *Interaction Quality of Initiations and Responses*
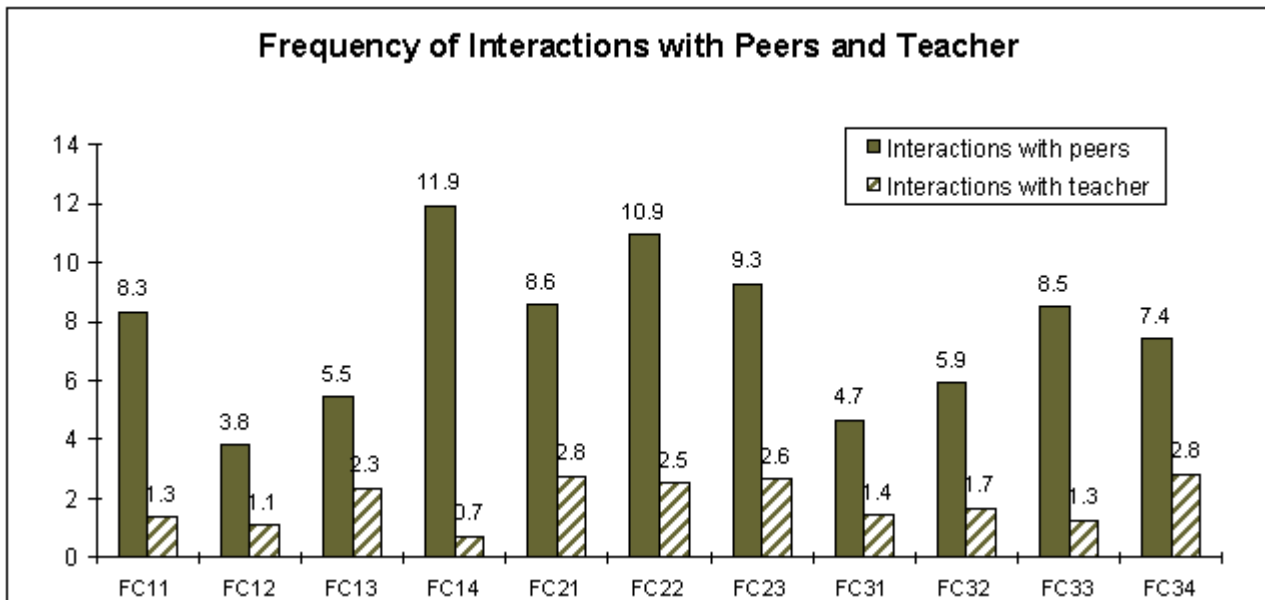

Figure 1:   Average frequency of interactions with peers and teacher (per 10-minute-interval)
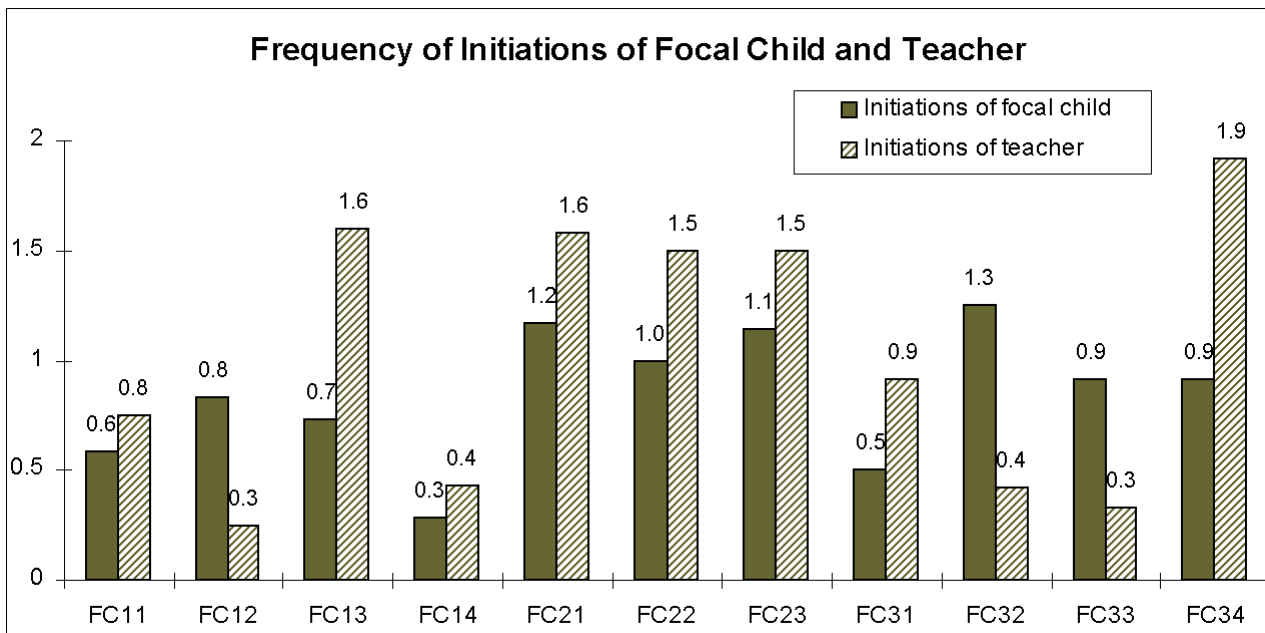

Figure 2:   Interactions with teacher: Average frequency of initiations of focal child and teacher
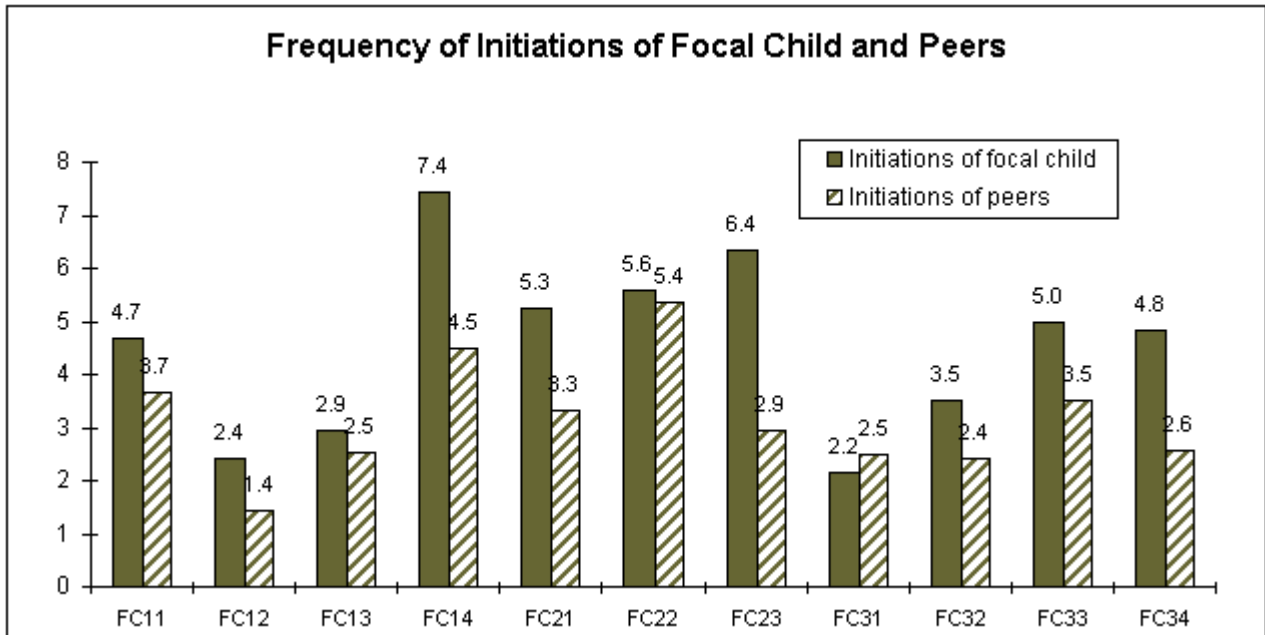
(per 10-minute-interval)

Figure 3: Interactions with peers: Average frequency of initiations of focal child and peers
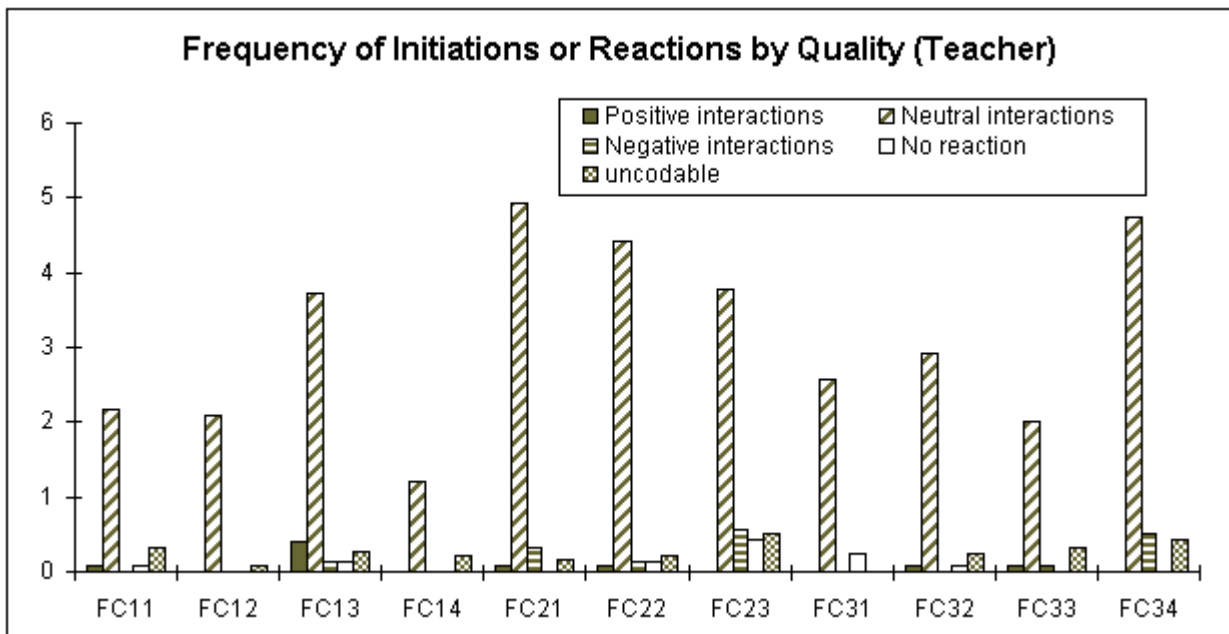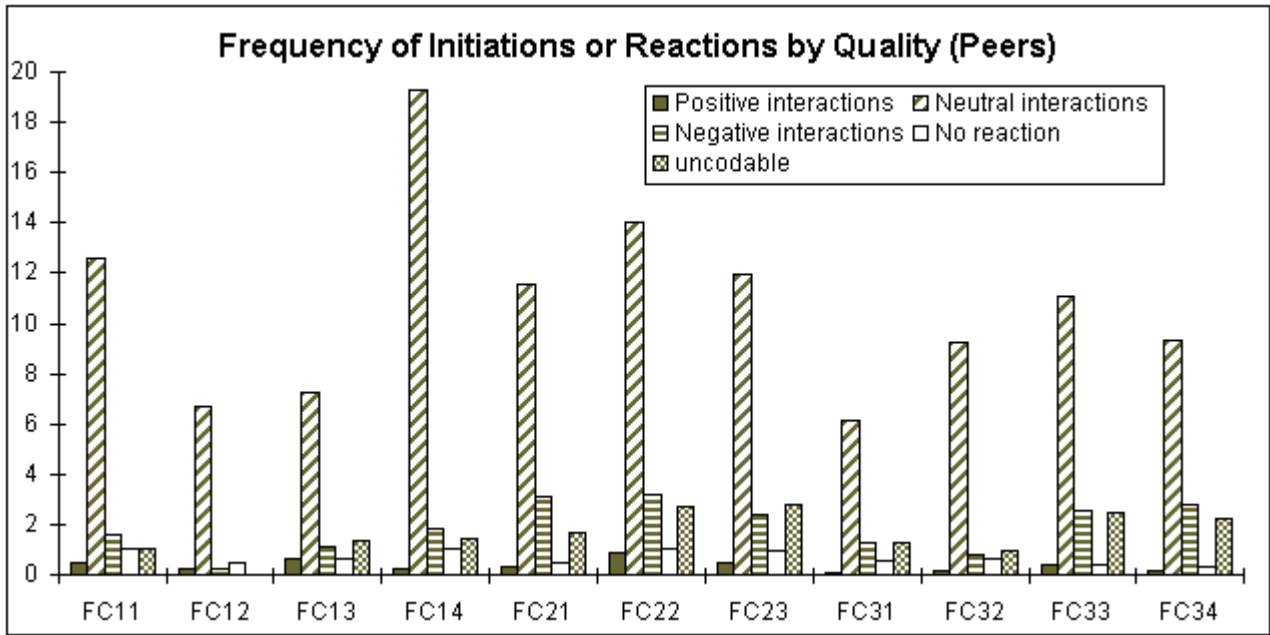(per 10-minute-interval)

Figure 4: Interactions with teacher: Average frequency of initiations or reactions by quality
(per 10-minute-interval)

Figure 5:   Interactions with peers: Average frequency of initiations or reactions by quality
              (per 10-minute-interval)
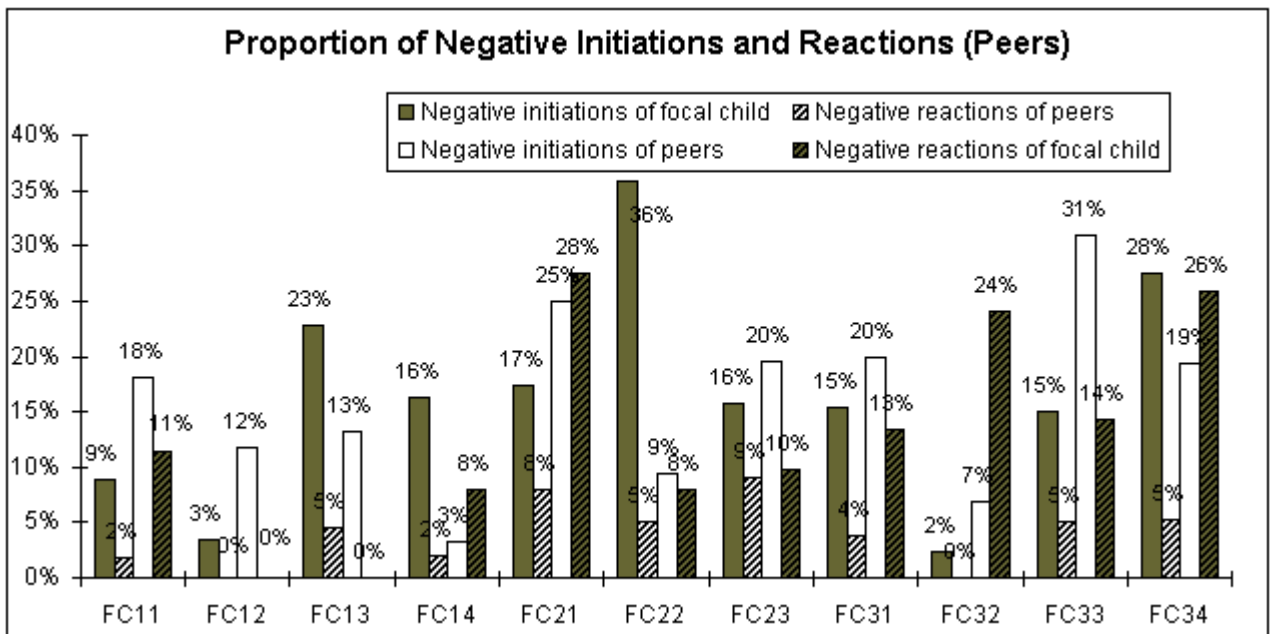
Figure 6:   Interactions with peers: Proportions of negative initiations and reactions

2) Global Ratings on Social Behaviors
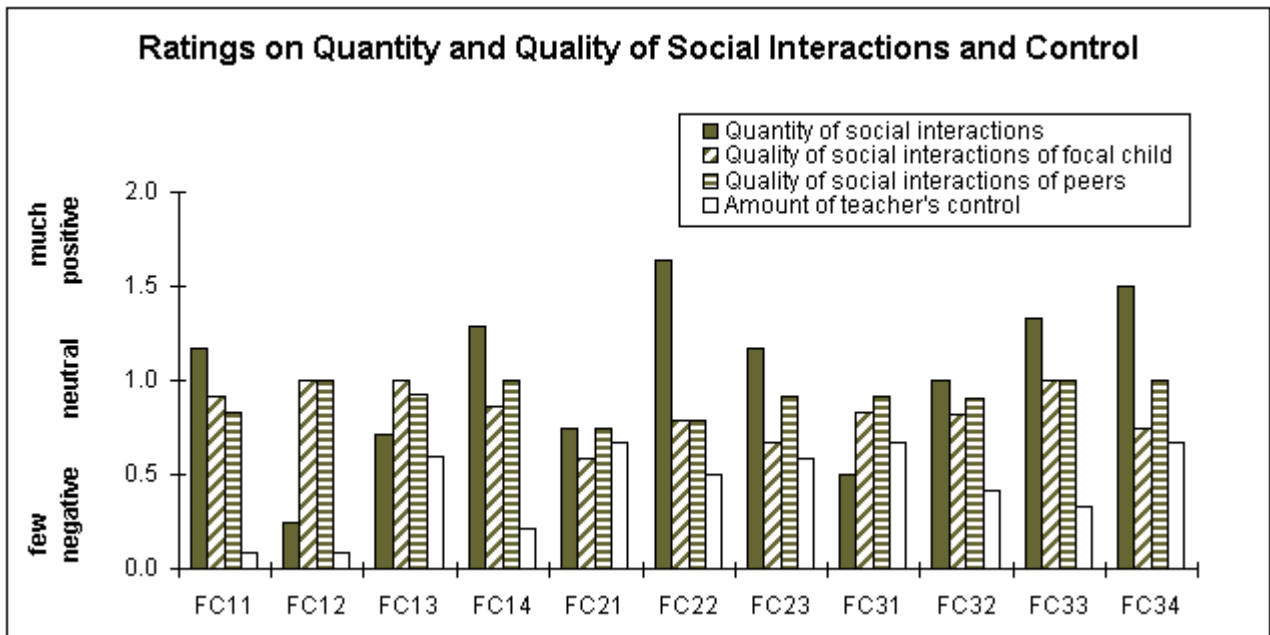
Figure 7:   Average global ratings on social interaction quantity and quality and degree of teachers' guidance
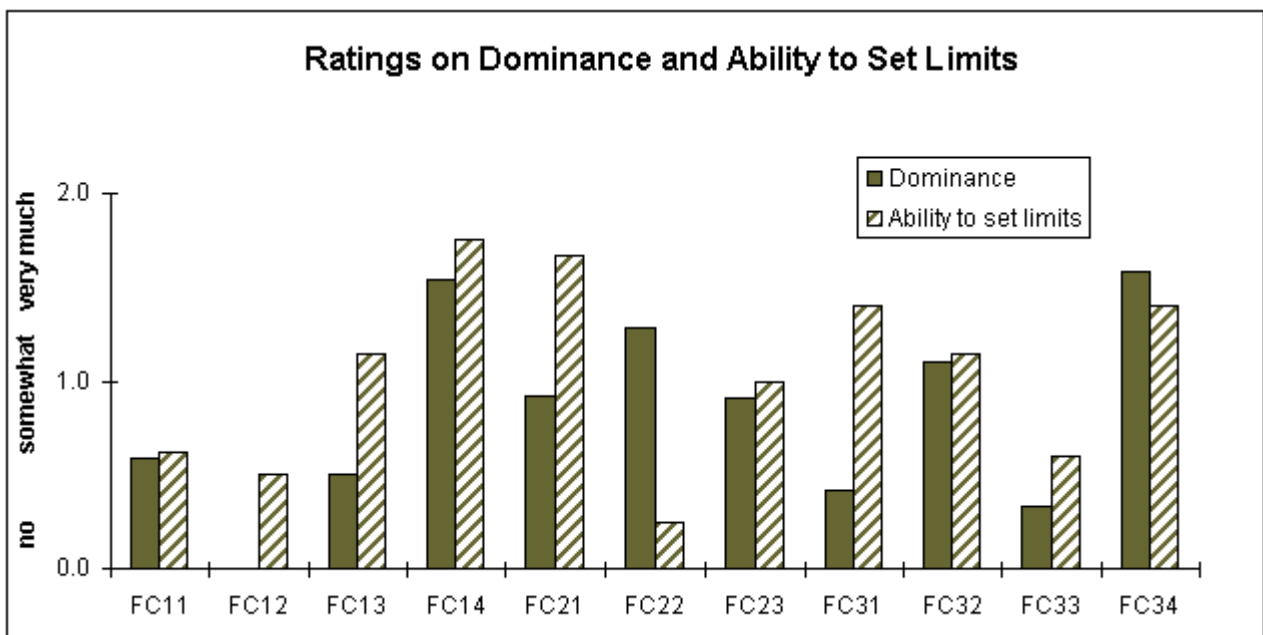

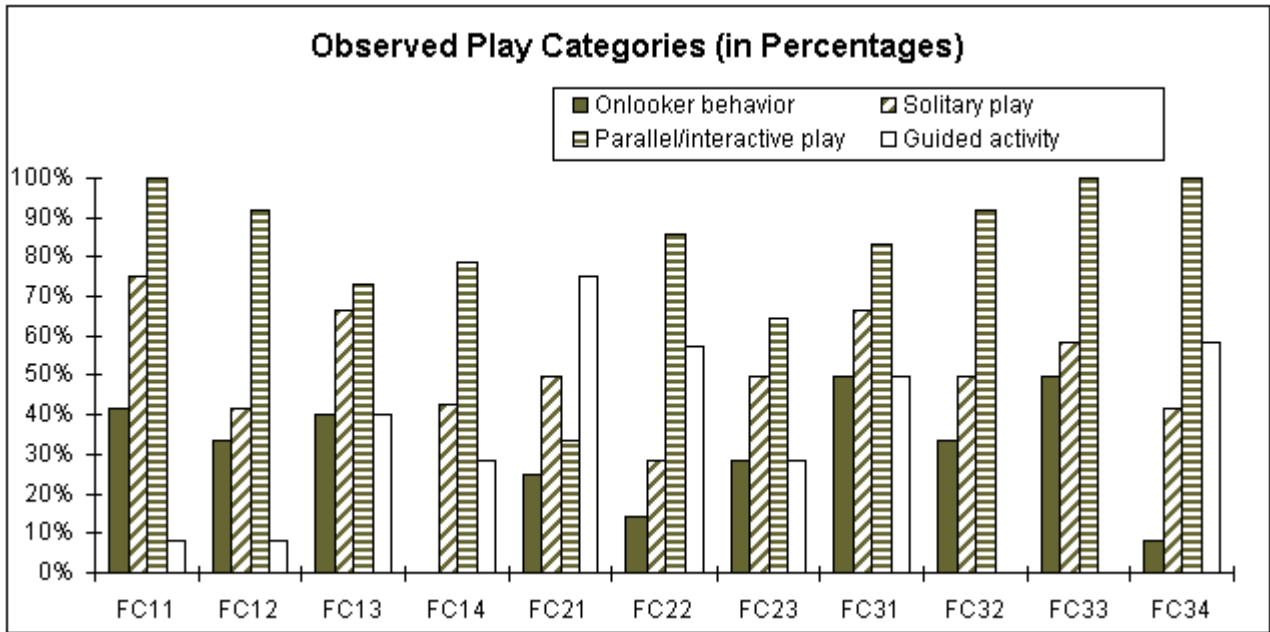Figure 8:   Average global ratings on dominance and ability to set limits

Figure 9:   Occurrence of observed play categories (in percentages)

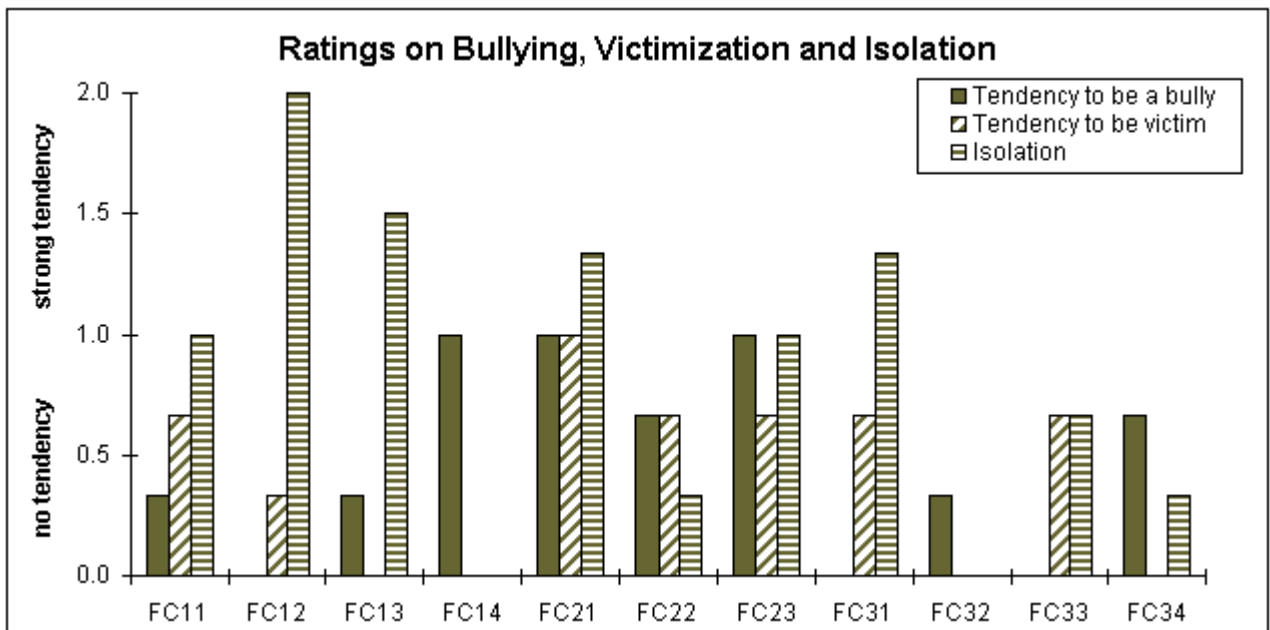## 3) Global Ratings on Bullying, Victimization and Isolation

Figure 10:   Average global ratings on bullying, victimization and isolation