SCHOOL BULLYING: DEFENDING THE VICTIM OR LOOKING THE OTHER WAY? THE ROLE OF PERSONAL CORRELATES AND CLASS NORMS IN PRIMARY AND MIDDLE SCHOOL

*A **mamma e papà***
per i sacrifici fatti perché io potessi realizzare i miei sogni
e per averne gioito ogni volta insieme a me

*Ad **Andrea***
per essere la meravigliosa risposta alla mia richiesta di felicità

*A **Gianluca***
perché dai senso alla parola "maestro"

Questo lavoro è dedicato a voi che, come "piccoli principi",
avete avuto la pazienza di addomesticarmi…

INDEX

Summary

Most studies on bullying rely on the 'traditional' classification of students into bullies, victims, bully/victims and uninvolved children (e.g., Olweus, 1993). Recently, this approach has been criticized and several authors (e.g., Salmivalli et al., 1996; Sutton & Smith, 1999) have stressed the importance of considering bullying as a group phenomenon in which most of the non-aggressive students, who are neither bullies nor victims, assume other roles relevant to the bullying process. A clear limitation of the current bullying literature is that, while the personal characteristics of bullies and victims have been widely studied, defenders' and, even more apparently, passive bystanders' individual characteristics have been rarely considered. Moreover, little attention has been paid to the possible correlates distinguishing defending and passive bystanding behavior. The first aim of our research project was to examine the associations between students' personal characteristics and different kinds of behavior in bullying episodes, namely defending and passive bystanding behavior. Furthermore, literature on Participant Roles has hardly ever analyzed the role played by contextual variables (i.e., class injunctive and descriptive norms) in influencing individual behavior. Therefore, the second aim of this research project was to test whether between-class variability of defending and passive bystanding behavior might be explained by class-level characteristics, such as class descriptive and injunctive norms about such behavior. A total of 797 children attending 18 primary schools (4th and 5th grades) and 1028 students attending 12 middle schools (7th and 8th grades) participated. They answered a series of self-report measures that investigate different behavior during bullying episodes (bullying, defending, passive bystanding and victimization), attitudes towards bullying (Salmivalli & Voeten, 2004), personal responsibility for intervention, coping responses to observation of bullying (Causey & Dubow, 1992) and perceived pressure for intervention from parents, teachers, and peers.

In Study 1, through structural equation modeling, we tested a model partially based on Latanè and Darley's (1970) model about bystanders' behavior during emergency situations. Moreover, the role played by perceived expectations from parents, peers and

teachers was investigated. In general, our results confirmed the hypothesized model. Specifically, anti-bullying attitudes were positively associated with personal responsibility for intervention and were related to coping strategies (this relation was partially mediated by personal responsibility); indeed, anti-bullying attitudes were positively associated with approach strategies (e.g., problem solving) and negatively associated with distancing strategies. Moreover, a positive relation between approach coping strategies and defending behavior and between distancing coping strategies and passive bystanding behavior emerged. Finally, the current findings revealed the important role played by perceived peer and parent (but not teacher) pressure on nearly all the study variables. This model was confirmed in both age groups (primary *vs* middle school students) with only few differences in paths' magnitude.

In Study 2, we investigated the characteristics of the class context related to individual defending and passive bystanding behavior through hierarchical linear modeling. In particular, we focused on peers' and teachers' injunctive norms (i.e., norms that refer to what people are expected to do; Cialdini et al., 1991) within the class and on descriptive norms (i.e., the extent to which a behavior exists in a group; Chang, 2004). Injunctive norms were computed as the aggregate of perceived peer and teacher pressure, whereas descriptive norms were represented by the class mean of defending or passive bystanding behavior. Results of multilevel analyses revealed that, after controlling for class level of victimization, class injunctive and descriptive norms oriented to intervention in favor of the victim positively predicted individual defending behavior, over and above the individual characteristics (age, gender, bullying behavior, victimization and perceived peer and teacher pressure). Similarly, passive bystanding behavior was related to injunctive and descriptive norms coherent with this behavior.

In conclusion, taken together, the findings of the two studies suggest that defending and passive bystanding behaviors in bullying are the outcome of both personal and contextual characteristics (Ladd, 2005). Consistent with a child by environment approach (Ladd, 2003), these results may be regarded as an example of how individual characteristics, motivational states and social context (in particular shared relationships and experiences with peers) may interact to affect individual behavior. These results might also have important implications for anti-bullying programs.

Riassunto

La maggior parte degli studi che si sono occupati di bullismo a scuola hanno classificato i protagonisti di tale fenomeno in bulli, vittime, bulli/vittime e non coinvolti (es. Olweus, 1993). Recentemente, molti autori hanno criticato questo approccio, mettendo in evidenza l'importanza di considerare il bullismo come un processo di gruppo (es., Salmivalli et al., 1996; Sutton & Smith, 1999) in cui la maggior parte degli studenti, pur non essendo coinvolta nel fare o subire prepotenze, assume comunque altri ruoli rilevanti all'interno del fenomeno. Una chiara limitazione dell'attuale letteratura sul bullismo riguarda la scarsa attenzione prestata alle caratteristiche individuali dei difensori e, soprattutto degli osservatori passivi, mentre molti studi si sono occupati di indagare le caratteristiche associate ai ruoli di bullo e vittima. Inoltre, si è prestata poca attenzione è stata prestata ai possibili correlati che distinguono il comportamento di difesa da quello di osservazione passiva. Il primo obiettivo del nostro progetto di ricerca è stato di analizzare l'associazione tra alcune caratteristiche individuali degli studenti e diversi tipi di comportamento assunti durante il verificarsi di episodi di prepotenze, nello specifico i comportamenti di difesa della vittima e di osservazione passiva. Inoltre, la letteratura sui Ruoli dei Partecipanti nel bullismo (Salmivalli et al., 1996) si è raramente occupata di indagare il ruolo giocato da variabili contestuali (es. norme di classe ingiuntive e descrittive) nell'influenzare il comportamento individuale. Qundi, il secondo obiettivo di questo progetto di ricerca è stato testare se la variabilità tra classi dei comportamenti di difesa e di osservazione passiva potesse essere spiegata facendo ricorso a variabili a livello di classe, come le norme di classe ingiuntive e descrittive relative a ciascun comportamento.

Hanno preso parte alla ricerca 797 bambini di scuola primaria (18 scuole, classi quarte e quinte) e 1028 ragazzi di scuola media (12 scuole, classi seconde e terze). Ai partecipanti è stato chiesto di rispondere a una serie di misure self-report atte ad indagare i loro comportamenti durante episodi di bullismo (agire prepotenze, difendere la vittima, osservare passivamente, essere vittime di bullismo), gli atteggiamenti nei confronti del bullismo (Salmivalli & Voeten, 2004), responsabilità personale per

l'intervento, strategie di coping adottate di fronte a episodi di bullismo (Causey & Dubow, 1992) and la pressione percepita ad intervenire in aiuto della vittima da parte di genitori, pari e insegnanti.

Nello Studio 1, utilizzando un modello di equazioni strutturali, abbiamo testato un modello basato parzialmente su quello proposto da Latané e Darley (1970)per spiegare il comportamento degli spettatori di fronte a situazioni di emergenza. Inoltre, abbiamo analizzato il ruolo giocato dalle aspettative percepite da parte di genitori, apri e insegnanti. In generale, i risultati hanno confermato il modello ipotizzato. In particolare, gli atteggiamenti anti-bullismo sono risultati positivamente associati alla responsabilità personale per l'intervento. Inoltre, sono risultati predire positivamente la scelta di strategie di coping di approccio (es. *problem solving*) e negativamente il ricorso a strategie di distanziamento. Entrambe queste relazioni tra atteggiamenti e strategie di coping sono risultate parzialmente mediate dalla responsabilità personale. Inoltre, è emerso un legame positivo tra strategie di coping di approccio e comportamento di difesa e tra strategie di distanziamento e la tendenza a comportarsi come osservatori passivi. Infine, i risultati di questo studio hanno messo in luce l'importante ruolo giocato dalla pressione percepita da parte di pari e genitori (ma non degli insegnanti) nell'influenzare gran parte delle variabili prese in esame. Questo modello si è dimostrato valido in entrambi i gruppi d'età (studenti di scuola primaria e media) e sono emerse solo poche differenze per quanto concerne la forza dei legami.

Nello Studio 2 abbiamo esaminato alcune caratteristiche del contesto classe legate ai comportamenti individuali di difesa e osservazione passiva attraverso modelli lineari multilivello. In particolare, abbiamo preso in considerazione le norme ingiuntive da parte di pari e insegnanti (norme che si riferiscono alle aspettative degli altri rispetto al comportamento dell'individuo; Cialdini et al., 1991) all'interno della classe e le norme descrittive (la frequenza con cui un certo comportamento è presente in un gruppo; Chang, 2004) relative al comportamento dei pari. Le norme ingiuntive sono state calcolate come la media di classe della pressione normativa percepita da parte di apri e insegnanti, mentre le norme descrittive sono state misurate come la media di classe dei comportamenti di difesa e di osservazione passiva. I risultati delle analisi multilivello hanno evidenziato che, controllando per il livello di vittimizzazione di classe, le norme ingiuntive e descrittive orientate all'intervento in favore delle vittime di bullismo

IV

predicevano positivamente il comportamento di difesa individuale, andandosi ad aggiungere alle caratteristiche individuali (età, genere, comportamento di bullismo, vittimizzazione e pressione normativa percepita da parte di apri e insegnanti). Similarmente, le norme ingiuntive e descrittive orientate all'intervento sono emerse come predittori negativi del comportamento di osservazione passiva.

In conclusione, i risultati dei due studi evidenziano come i comportamenti di difesa e osservazione passiva siano il risultato sia di caratteristiche individuali che contestuali (Ladd, 2005). Coerentemente con un approccio *child by environment* (Ladd, 2003), questi risultati possono essere considerate un esempio di come le caratteristiche individuali, gli stati motivazionali e il contesto sociale (in particolare nei termini di relazioni e esperienze condivise coi pari) possano interagire andando ad influenzare il comportamento individuale. Inoltre, questi risultati possono avere importanti implicazioni per i programmi di prevenzione e intervento sul bullismo.

Chapter 1

WHAT IS SCHOOL BULLYING?

1.1 Defining bullying: is it only a "new" label for an old problem?

The first misunderstanding when people talk about bullying is that this phenomenon is sometimes considered to be merely a new name for aggressive behavior. However, while bullying always implies aggressive behavior, not all aggression is bullying. Though the amount of studies on this topic has increased tremendously during the last two decades, it is startling to see to what extent popular assumptions and the mass media's imagination concerning bullying still diverge from the empirical findings on the prevalence, risk factors and consequences of this phenomenon (Stassen Berger, 2007). One of the main problems that also affect the scientific literature is that there is no universally accepted definition of this phenomenon and the meaning of this term sometimes differs between studies. The Cambridge Advanced Learner's Dictionary (3rd Edition, 2008) defines the verb "to bully" as "to hurt or frighten someone who is smaller or less powerful than you, often forcing him/her to do something he/she does not want to do". This definition covers many aspects of bullying, as does the literature.

Establishing a shared definition for bullying is a fascinating challenge as it requires capturing multiple relational behaviors occurring between people within time (Smorti, Menesini, & Smith, 2003). Despite the slightly different definitions in literature, there is some degree of consensus, mainly because most definitions of bullying have arisen from Olweus's pioneering work in this area. Olweus (1991) claimed that "a person is being bullied when he or she is exposed, repeatedly over time, to negative actions on the part of one or more persons" (p. 413). This definition has subsequently been modified by other researchers who have incorporated research findings into it. For example, Farrington (1993) defined bullying as psychological or physical oppression, repeated over time, perpetrated by powerful persons on less powerful persons. The

physical or psychological nature of bullying was also stressed by Smith and Thompson (1991) who underlined that this phenomenon is usually intentional and goal oriented, unprovoked, repeated and that the bully is stronger than the victim. Smith and Sharp (1994, p. 1) suggested that "a student is being bullied or picked on when another student says nasty and unpleasant things to him or her. It is also bullying when a student is hit, kicked, threatened, locked in a side room, sent nasty notes, and when no one ever talks to him". Slee (1996, p. 64) expanded the definition of bullying by emphasizing the repetitive nature of the behavior by defining bullying as "repeated intimidation, over time, of a physical, verbal or psychological nature of a less powerful person by a more powerful person or group of persons". Rigby (2002) stressed the difference between "malign" and "non malign" bullying, defining the latter as behavior where there is no intention to cause hurt. We might question why this type of interaction should be called bullying at all. However, for our purpose we are more interested in his definition of "malign" bullying: "Bullying involves a desire to hurt + hurtful action + a power imbalance + (typically) repetition + an unjust sense of power + evident enjoyment by the aggressor and generally a sense of being oppressed on the part of the victim" (Rigby, 2002, p. 51). Elinoff, Chafouleas, and Sassu (2004) suggested that the definition should also include a requirement that the bully's hostile behavior is undertaken in the absence of provocation, rather than in response to actions by others.

All these definitions of bullying have some important points in common. To talk about bullying, differentiating it from other aggressive acts, the aggressive behavior must meet the following three criteria (e.g., Hoover & Oliver, 1996; Olweus, in press; Rigby, 2004):

a) it must be intended to cause harm or distress. The proactive nature of the action, that is goal oriented and unprovoked, distinguishes bullying from other forms of aggression (i.e., reactive aggression) that can originate, for example, from real or perceived provocation by other people;

b) it occurs repeatedly over time. Whereas aggression may involve a singular action and tends to be time limited (Feshbach & Zagrodzka, 1997), bullying is repetitive in nature, whereby bullies continue to bully victims for extended periods of time;

c) it occurs in a relationship in which there is an imbalance of power or strength, that might include both physical and psychological superiority of the bully over the

2

victim. The key point is that bullies, for their own benefit, exploit this imbalance of power to dominate the victim. This last point is so crucial that Sharp and Smith (1994, p.2) defined bullying as "a systematic abuse of power".

Even if the three-criteria characterization is not universally accepted (e.g., Greene, 2006), it appears to be the most comprehensive and well accepted description at the moment. The issue of a clear and complete definition is not a pedantic speculation. In fact, assessments of change in prevalence of the phenomenon or the evaluation of anti-bullying prevention and intervention programs mean that measurements don't differ substantially across the studies.

Adopting the three-criteria description of bullying, the most complete definition is probably that one proposed by Whitney and Smith (1993, p. 7), according to which "we say a child or young person is being bullied, or picked on when another child or young person, or a group of children or young people, say nasty and unpleasant things to him or her. It is also bullying when a child or young person is hit, kicked, threatened, locked inside a room, sent nasty notes, when no one ever talks to them and things like that. These things can happen frequently and it is difficult for the child or young person being bullied to defend himself or herself. It is also bullying when a child or young person is teased repeatedly in a nasty way. But it is not bullying when two children or young people of about the same strength have the odd fight or quarrel". This definition, translated into Italian (Genta, Menesini, Fonzi, & Costabile, 1996; Menesini & Gini, 2000), was used in the studies presented in Chapter 4 and Chapter 5.

1.1.1 Different types of bullying behavior

Within the area of bullying in schools, several types of bullying behavior can be distinguished. One of the most commonly used distinctions is that between two macro-categories: direct and indirect bullying (Rivers & Smith, 1994). Direct bullying is characterized by behaviors that involve an overt attack on the victim, in a face-to-face interaction (Olweus, 1993). A further division within direct bullying is between physical (e.g., hitting, kicking, pinching) and verbal (name calling, teasing, taunting, threatening) forms of aggression (Crick & Grotpeter, 1995, 1996; Wolke, Woods, Bloomfield, & Karstadt, 2000). In contrast, indirect bullying is more covert and it is characterized by the hurtful manipulation of peer relationships or feelings of inclusion by the peer group

with the intent to inflict harm on the victim through behaviors such as social exclusion, withdrawal of friendship or acceptance unless the victim does not conform to the bully's or the group's requests, or rumor spreading (Björkqvist, 1994; Crick & Grotpeter, 1995).

1.2 Why school bullying matters? Short and long term consequences.

Although the effects of bullying are not fully known, a substantial body of evidence has documented the negative consequences of bullying on targets, perpetrators of bullying and community at large. As suggested by Stassen Berger (2007), perhaps, there are few topics in which the clash between popular beliefs and scientific findings is as blatant as it is regarding the consequences of bullying. Indeed, far from being a hostile interaction that teaches negotiation or helps people become tougher, bullying is neither inevitable nor beneficial.

Studies investigating consequences of bullying have focused almost exclusively on bullies, victims and bully-victims (individuals who are victimized by other peers, but who also engage in aggression towards others). Although some differences have been observed between victims and bullies, it seems that many of these consequences are shared. Consequences of bullying can be divided into two macro-areas: (a) consequences for physical health and psychological well-being and (b) behavioral consequences. Even though this section focuses on negative outcomes, it is important to note that bullying behavior often has some concurrent positive consequences for bullies that need to be considered in order to understand its impact on the peer group and the reasons why it is sometimes difficult to tackle it. For example, bullies usually have a group of friends who respect and like them and are perceived as popular and "cool", especially during early adolescence (Cillessen & Mayeux, 2004; D. L. Espelage & Holt, 2002; Estell, Farmer, & Cairns, 2007; Hawley, Johnson, Mize, & McNamara, 2007).

1.2.1 Psychological and health problems
Several studies have reported bullying others to be associated with poor social and emotional adjustment (Glew, Fan, Katon, Rivara, & Kernic, 2005; Nansel, et al., 2004; Nansel, et al., 2001) and with poor mental health (Kumpulainen, Rasanen, & Henttonen, 1999). In particular, the mental health problems most commonly associated with those

who bully are externalizing problems (Kumpulainen & Räsänen, 2000; Menesini, Modena, & Tani, 2009; Sourander, Helstela, Helenius, & Piha, 2000) as well as depression and suicidal ideation (Coolidge, DenBoer, & Segal, 2004; Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantanen, 1999; Kaltiala-Heino, Rimpelä, Rantanen, & Rimpelä, 2000; Rigby & Slee, 1999; Roland, 2002a, 2002b). Similarly, Kaltiala-Heino and colleagues (1999) found that students who were frequently bullied were also more likely to be moderately or severely depressed (over five times for boys and over three times for girls), and more likely to be suicidal (over four times for boys and over eight times for girls) than those who were not victimized. The association between depression, suicidal ideation and being bullied has also been observed in other studies (Arseneault et al., 2006; Bond, Carlin, Thomas, Rubin, & Patton, 2001; Cleary, 2000; Craig, 1998; Dao et al., 2006; Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004; Nordhagen, Nielsen, Stigum, & Kohler, 2005; see Kim & Leventhal, 2008, for a systematic review). Salmon and colleagues (2000), reviewing empirical studies on this topic, found that being victimized was often a factor influencing the referral of adolescents to psychiatric services, with depression being diagnosed in over 70% of cases. In their well-cited meta-analytic review, Hawker and Boulton (2000) analyzed studies conducted over 20 years concerning the relationship between peer victimization and psychosocial maladjustment. A positive association between depression and victimization emerged, with up to 20.3% shared variance.

In addition, compared to non-victimized peers, bullied children also show more anxiety and stress (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Newman, Holden, & Delville, 2005; Salmon, James, & Smith, 1998; Sourander, et al., 2007), low self esteem and self-worth (Arseneault, et al., 2006; Gruber & Fineran, 2007), loneliness (Arseneault, et al., 2006; Eslea, et al., 2004; Estevez, Murgui, & Musitu, 2009; Nordhagen, Nielsen, Stigum, & Kohler, 2005), and self-blame (Graham & Juvonen, 1998). Moreover, repeated victimization may be associated with clinically significant levels of posttraumatic stress symptomathology (Mynard, Joseph, & Alexander, 2000; Storch & Esposito, 2003).

Bully-victims are probably the most at risk group of students (e.g., Haynie, Nansel, & Eitel, 2001; Kumpulainen et al., 1998; Menesini et al., 2009; Schwartz, 2000; Schwartz et al., 2001), since they often share the same problems of both bullies and victims. Bully-victims, for example, report feeling tense and tired, having sleeping

problems and suffering from dizziness, as well as several other psychosomatic problems (Gini, 2008; Gini & Pozzoli, 2009). Moreover, several studies have demonstrated poor social adjustment (Haynie, et al., 2001; Nansel, et al., 2004), anxiety (Arseneault, et al., 2006; Kaltiala-Heino, et al., 2000), and disturbed personalities (Kaltiala-Heino, et al., 2000) in bully-victims.

Despite the great amount of studies linking bullying and negative mental health outcomes, the cross-sectional nature of most of them renders difficult to state whether these problems precede or follow involvement in bullying. However, some longitudinal studies have been published. For example, Sourander and colleagues (2000) followed up a sample of 580 sixteen-year-old adolescents as part of a larger sample of 6,017children who had been assessed at age 8. Bullying, victimization, emotional adjustment and depression were measured. The results indicated that having emotional and behavioral problems at age eight was associated with both bullying and being bullied eight years later. Family factors, such as parental education and socio-economic levels or family composition, were not associated with bullying and victimization. Using a similar methodology, Kumpulainen and colleagues (1999), in a four-year follow-up study, found nearly half the children involved in bullying in Time 2 had been involved four years earlier. Those children who were identified as bully-victim in Time 1 were most commonly found to be still involved in bullying at Time 2. At both time points, children involved in bullying were found to have significantly more psychiatric symptoms than other children. Rigby (1999) conducted a three-year follow-up study on a sub-sample of 78 Australian adolescent students. The results suggested that high levels of victimization at Time 1 predicted poor physical health for both gender groups and poor mental health for girls but not boys at Time 2. Bond and colleagues (Bond, Carlin, Thomas, et al., 2001) investigated the association between peer victimization, on one hand, and anxiety or depression, on the other hand, in a two-year cohort study. Students were assessed twice in Grade 8 and once in Grade 9. Differently to what emerged in the study by Sourander and colleagues (2000), results indicated that being bullied in Grade 9 was not significantly associated with prior symptoms of anxiety or depression. Moreover, previous recurrent emotional problems were not significantly related to further targeting by bullies. In contrast, the incidence of anxiety or depression in Grade 9 was significantly associated with victimization in Grade 8. When results were adjusted for

availability of social relations and for socio-demographic factors, peer victimization were again predictive of anxiety and depression for girls, but not for boys. The authors concluded that a history of peer victimization and poor social relationships predicts emotional problems in adolescents.

In short, longitudinal studies investigating links between bullying and psychological well-being have not reported consistent results, thus indicating the need for further research in this area. Indeed, the direction of the relationship, between being bullied or bullying, on one hand, and psychological problems, on the other hand, is not clear and potential mediators or moderators should be considered (see Sourander et al., 2000). Whereas, on one hand, this lack of agreement limits the possibility of establishing conclusive causal relations between variables, on the other hand it leaves open the issue of circularity of influence. For example, it is possible that victimization causes depression in children and then depression make these children more likely to be further victimized.

Involvement in bullying has also been associated with psychosomatic complaints. For example, a recent meta-analysis (Gini & Pozzoli, 2009), summarizing the results on more than 150,000 students (aged 7 to 16 years), has evidenced that victims and bully-victims are two times more likely than uninvolved peers to show a variety of psychosomatic problems, including headache, stomachache, abdominal pain, dizziness, sleeping problems, poor appetite, bed wetting, skin problems, vomiting. Unfortunately, the majority of studies on the relationship between involvement in bullying and health problems included in the meta-analysis employed a cross-sectional design, thus limiting the possibility to infer causal relationships between the variables. However, Fekkes and colleagues (Fekkes, Pijpers, Fredriks, Vogels, & Verloove-Vanhorick, 2006) in their short-term prospective study with a sample of 1,118 Dutch elementary-school children, provided initial evidence of the direction of the association. Indeed, their results clearly showed that children who were bullied at the beginning of the school year had significantly higher chances of reporting psychosomatic problems later in the same school year compared to non-victimized children. Instead, Fekkes and colleagues' data did not support the hypothesis that health symptoms precede victimization. Moreover, a study on a large sample (n = 5,205) of 11-15-year-olds from Denmark has shown that bullied students significantly use more medicine for pains and other problems (i.e.,

headaches, stomachaches, sleeping problems), even after accounting for their higher prevalence of symptoms(Due, Hansen, Merlo, Andersen, & Holstein, 2007). Despite these results, further research is needed to assess the developmental paths that link involvement in bullying to its long-term health consequences.

1.2.2. Behavioral consequences

A large amount of empirical investigations have reported bullying others to be associated with poor school performance and truancy (Due, et al., 2005; Haynie, et al., 2001; Nansel, et al., 2004; Nansel, et al., 2001) and with a greater risk for drug and alcohol abuse (Due, et al., 2005; Kaltiala-Heino, et al., 2000; Nansel, et al., 2001). Moreover, compared to those who do not engage in bullying, bullies are more likely to carry weapons to school (Kuntsche & Klingemann, 2004) and to be involved in fighting (Nansel, Overpeck, Haynie, Ruan, & Scheidt, 2003). Finally, bullies are at increased risk for a variety of antisocial, violent, and criminal behavior (Bulach, Fullbright, & Williams, 2003; Sourander, et al., 2007; White & Loeber, 2008). Eron and colleagues (Eron, Huesmann, Dubow, Romanoff, & Yarmel, 1987), for example, found that bullies identified by age eight had about a one in four chance of having a criminal record by age 30 compared to non-aggressive children whose chance was one in twenty. Similarly, follow-up studies in Norway indicated that, of those originally identified as bullies in the sixth to the ninth grades, 70% were convicted of at least one crime by age 24 (Olweus, 1997). Since several international studies have demonstrated that antisocial and criminal acts begin early in adolescence and are extremely stable over time (e.g., Farrington, 1995), bullying prevention may be considered a critical aspect of crime prevention (Kass, Evans, & Shah, 2003).

As far as victims of bullying are concerned, the fear of being bullied again can lead them to avoid areas in and around the school, depriving them of important social experiences (Ross, 1996). This behavior can persist into adulthood when the risk of social withdrawal is very high. For example, adults who had been victimized at school have shown problems in achieving intimate relationships with members of the opposite sex (Gilmartin, 1987). On the other hand, other studies indicate that being bullied during childhood can result in becoming an aggressor later on, such as reports in cases of former victims who abuse their wives in adult life (Rigby, Whish, & Black, 1994) or the

results obtained by the U.S. Secret Services that, analyzing school shootings, discovered that 71% of the shooters had been victims at school (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002).

In short, the literature on the health, psychological and behavioral problems of children and adolescents involved in bullying shows both similarities and differences between bullies and victims. For example, both groups of children are characterized by academic problems, poor emotional adjustment, depression and suicidal ideation. However, victims report a wide range of internalizing problems, such as low self-esteem, social withdrawal, depression, and anxiety, whereas bullies usually show more externalizing problems, especially substance use, antisocial and criminal behavior.

1.3 Measuring school bullying: strengths and limits of different measures.

The growing interest in bullying processes has led to an increasing number of assessment methods being available. Being aware of the choice of a specific measure, knowing the aims that guided its construction and its limits, and choosing the instrument appropriate under certain circumstances is fundamental for researchers. The present paragraph provides an overview of the main types of assessment techniques that have been utilized in this field of research, highlighting strengths and limitations. In particular, for the sake of simplicity, after a brief mention to observational methods, measures are presented according to the source (i.e., individuals, peers, teachers) used to collect information about bullying.

1.3.1 Direct observations

Direct observational methods involve one or more outside observers watching students interact and video-recording of, or taking notes on, behaviors that take place. This method has been adopted in a number of studies (Atlas & Pepler, 1998; Craig & Pepler, 1997; Hawkins & Pepler, 2001) and, compared with other methodologies, is the most likely to provide an "objective" assessment of students' behavior, showing what is occurring and how often it is happening. Moreover, observational methods have a high level of external validity because they usually occur in natural settings (Craig, Pepler, & Atlas, 2000). However, there are also some limitations. First, as Pellegrini and Bartini

(2000) suggested, in order to obtain reliable and valid data students should be observed "in a wide variety of settings over a number of months" (p. 366). So, this method would require an amount of time and money that might be prohibitive for many researchers. Moreover, it is unlikely that schools and teachers would allow researchers to be present at school for a such long time. On the other hand, using observational methods only for short periods might fail to reveal whether a specific behavior is sporadic or repeated through time. Second, observations can be obtrusive and participants may alter or inhibit their behavior due to the presence of an observer (Perry, Kusel, & Perry, 1988). This problem may be overcome through the use of video and audio recordings (Atlas & Pepler, 1998; Craig, et al., 2000; O'Connell, Pepler, & Craig, 1999). This strategy means that the presence of the observer is less intrusive, but it does not solve the potential artificiality of students' behavior, who are aware of the researchers' recording (O'Connell, et al., 1999). Finally, another problem of this methodology is related to the nature of bullying, which is often covert and indirect and, consequently, difficult to identify using observational strategies (Crothers & Levinson, 2004; O'Connell, et al., 1999). Moreover, understanding bullying through observation implies a good knowledge of friendship networks inside school or classrooms (Crick & Grotpeter, 1995). Indeed, a lack of interaction between two students may occur both because a student is actively ignoring a classmate or because they have no friendship relationships (Crick, et al., 1999).

1.3.2 Teacher reports

Teacher reports typically ask teachers to rate each student in their classroom regarding the frequency of different bullying behaviors. They are based on the assumption that teachers are privileged external observers, since they have experience with students, they are around their students every day and have the opportunity to observe relationships and interactions. These characteristics should make teachers ideal reporters of bullying behavior. Unfortunately, teacher evaluations share some limitations with direct observation methods. Indeed, past research suggests that teachers tend to underestimate bullying occurrence and are often not reliable sources (Crothers & Levinson, 2004; Junger-Tas & Van Kesteren, 1999). The possible reasons are numerous.

First, the way in which teachers perceive students' behavior could be different from the students' point of view. This difference in perception could be also due to children not always (about 22%-50% of the times) telling teachers about bullying that occurs (Borg, 1998; Houndoumadi & Pateraki, 2001; Naylor, Cowie, & del Rey, 2001). Second, bullying often takes place when adults are not present, so that teachers are sometimes not aware of what is happening (Junger-Tas & Van Kesteren, 1999). In their observational study, Atlas and Pepler (1998) found teachers to be present during only 30 of the 60 bullying episodes they video-taped. Even then, teachers were only aware of 13 of those 30 bullying episodes. Third, as observers, teachers are able to identify physically aggressive behaviors, but they have a lot of difficulties in identifying more indirect forms of bullying (Underwood, Galen, & Paquette, 2001). This problem can lead to an underestimation of the investigated phenomenon. Fourth, teacher reports are also susceptible to halo effect bias, so that teachers might rate a student in an uniformly positive or negative manner, on the basis of characteristics unrelated to those being assessed (Epkins, 1994; Merrell, 2003).

The consequence of the low attention paid to the teacher's perspective in bullying literature is the lack of well-validated teacher measures. As far as we know, researchers interested in teachers' evaluations often use adapted versions of other instruments (e.g., self reports) or create a teacher report measure ad hoc for their studies. For example, Cullerton-Sen and Crick (2005) derived the Social Experience Questionnaire-Teacher Report (SEQ-T) from the Social Experience Questionnaire-Self-Report (SEQ-S). The SEQ-T is composed of 6 items and is focused on victimization. Teachers rate to what extent each student is the target of physically aggressive acts or relationally aggressive acts using a 5-point Likert scale *(never* to *almost always).* Similarly, in order to investigate multiple subtypes of aggressive behavior (i.e., physical, verbal, indirect), Schwartz, Chang and Farver (2001) created eight teacher rating items *ad hoc*.

In short, teacher reports seem to be most appropriate and useful when an evaluation of young children, who may not be able to rate themselves or each-other, is required or when more direct types of aggression are considered. Self-report, peer nominations or peer ratings are more reliable than teacher report, especially when indirect forms of bullying are being investigated (Smith, 2004) or when older students

(i.e., adolescents) are involved. Probably for all the reasons described above, teacher reports have only occasionally been used to assess bullying.

1.3.3 Peer nominations and peer-ratings

Several studies in bullying literature have made use of peers as the source of information about students' behaviors during bullying episodes (e.g., Boulton, 1999; Crick & Grotpeter, 1995; Caravita, Di Blasio, & Salmivalli, 2009; Gini, Albiero, Benelli, & Altoe, 2007, 2008; Menesini, Sanchez, et al., 2003; Salmivalli, Karhunen, & Lagerspetz, 1996; Salmivalli, Kaukiainen, & Voeten, 2005; Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukiainen, 1996). Peers are considered good informants regarding their classmates' behavior, both because they are directly involved in interactions and because they have the opportunity to observe their peers over long periods of time and in the various contexts where bullying occurs (Crick, et al., 1999; Perry, et al., 1988; Rigby, 2002). So, they can often have a greater awareness than other external observers (teachers or researchers) about direct and indirect bullying episodes and their frequency.

In particular, peer nominations or peer-ratings were used. The first technique asks students to select those classmates who more often engage in the behaviors described in the questionnaire. In contrast, peer-rating measures require students to rate all peers (or a sub-group of peers) on different behavioral statements. Looking at peer measures in literature, one of the first developed peer nomination measures was Crick and Grotpeter's Social Experiences Questionnaire (SEQ; Crick & Grotpeter, 1995). It is a peer nomination instrument consisting of 19 items to describe pro-social behavior (5 items), overt aggression (3 items), relational aggression (5 items) and isolation (2 items). Participants were asked to nominate up to three classmates for each of the items. The SEQ is then scored by summing the number of nominations for each child (Crick & Grotpeter, 1995). After the nominations have been summed, they are standardized within each classroom resulting in standardized scores for overt aggression, relational aggression, prosocial behavior, and isolation. Further studies have provided additional evidence for the psychometric strength of the SEQ (Crick, 1996, 1997; Grotpeter & Crick, 1996) and have improved the measure by adding, for example, two items to the overt aggression scale resulting in a five-item scale (Grotpeter & Crick, 1996). However,

12

several studies have utilized peer rating procedures, suggesting that children are able and willing to complete peer ratings (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Kaukiainen, et al., 1999; K. M. Lagerspetz, Bjorqvist, & Peltonen, 1988; Österman, et al., 1994; Salmivalli, 2005).

Peer nomination and peer-rating measures have several strengths. The most important is that information about a student is based on multiple informants as an aggregate of judgments. This increases the reliability and validity of assessment and minimizes the impact of any single individual rater's bias (Crick, Casas, & Mosher, 1997; Crick, et al., 1999; Rigby, 2002; Salmivalli & Nieminen, 2002). Moreover, peers are not affected by the desire to provide a good social image of themselves, which may be the case of self-reports.

The disadvantage of using peer nominations is that only classmates that engaged in a certain behavior on a frequent basis are nominated. So it is possible that some students may not receive any nominations, meaning that no information is obtained about their behavior. When peer-ratings are used, the frequency and severity of bullying behavior can be determined for all children, but this requires a great amount of time that can became prohibitive if this measure is administered with a number of other questionnaires.

A limit that both techniques have in common is that information provided by peers might not be accurate because they might not be based solely on direct observations. When forming impressions of other people, children and adolescents are often biased by peer reputation and friendships or by their peers' thoughts, gossiping or rumors. Moreover, their evaluations can fluctuate on the basis of moods or specific events that they are living through (McNeilly-Choque, Hart, Robinson, Nelson, & Olsen, 1996; Stassen Berger, 2007). Finally, as above mentioned in connection with teacher report, halo bias can also affect peers' responses.

A commonly used peer rating measure in studies of bullying is the Participant Role Questionnaire (PRQ), developed by Salmivalli and colleagues (1996). This questionnaire is different from other commonly used measures because it is based on the idea that there are varying levels of participation in bullying (the Participant Roles Approach will be described in detail in the next chapter). So, it investigates not only bully and victim roles, but also tendencies to act as a reinforcer or assistant to the bully,

as a defender of the victim or as an outsider (or passive bystander). In the original version of the PRQ, after a definition of bullying, children were presented with 50 items on which they rated both themselves and their peers on a three point scale (0=never; 1=sometimes; 2=often). In subsequent versions, the number of items has been reduced to 22 (Salmivalli, Lappalainen, & Lagerspetz, 1998) and then 15 (Salmivalli & Voeten, 2004). In each version, one additional item assesses which classmates are most frequently victimized. The PRQ is scored by summing the scores given by each student in each scale and then dividing by the number of evaluators. Final summed scores are continuous and range from 0.00 to 2.00 for each student on each scale (Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukiainen, 1996). Then scores are standardized by class and are used to identify children with corresponding bullying-related roles, through a procedure described by Salmivalli and colleagues (1996). In 1999, Sutton and Smith modified the PRQ by reducing the number of items it and transforming it into a sort of peer nomination measure (the authors used interviews instead of a questionnaire because of the age of their participants). From their interview-measure, a paper and pencil form was derived by Menesini and Gini (2000), who developed the Italian version of PRQ.

1.3.4 Self-reports

Many studies on bullying used self-report measures in order to investigate behavior during bullying episodes (e.g., Austin & Joseph, 1996; Baldry & Farrington, 1999, 2000; Boulton & Underwood, 1992; Pellegrini et al, 1999; Pellegrini & Long, 2002; Smorti & Ciucci, 2000; Whitney & Smith, 1993). The most widely used self-report measure of bullying is the Olweus Bully/Victim Questionnaire (Olweus, 1991, 1994, 1999, 2001). This questionnaire has received global recognition and it has been adopted by researchers in Norway (Olweus, 1991, 1994, 1997, 1999), Belgium (Stevens, De Bourdeaudhuij, & Van Oost, 2002), Finland (Olafsen & Viemero, 2000), Italy (Baldry & Farrington, 1999, 2000; Genta, et al., 1996; Smorti & Ciucci, 2000), the UK (Boulton & Underwood, 1992; Whitney & Smith, 1993), and the US (Pellegrini & Bartini, 2000, 2001; Pellegrini & Long, 2002). Participants read a definition of bullying (Olweus, 2001) and they answer a series of questions about this phenomenon and about their behavior as bully or victim.

Although this is the most popular self-report measure, several other questionnaires adopt a similar format. Crick and Grotpeter (1996), for example, developed a self-report measure, the Social Experiences Questionnaire – self-report (SEQ –S), to assess more relational types of aggression. This questionnaire was subsequently improved by Paquette and Underwood (1999), who expanded the relational aggression subscale. Another example of self-report is represented by Rigby's Peer Relations Questionnaire (1998), which has been used in several Australian studies (Rigby, 1993; Rigby & Cox, 1996; Slee, 1993, 1995; Slee & Rigby, 1993).

Self-reports also have some strengths and some limitations. Self-report measures are ideal because they are time efficient, involve relatively little manpower, and are cost effective (Crothers & Levinson, 2004). Moreover, they provide an individual's perception of his/her own behavior, based on the (often true) principle that each child is the best informant about him/herself. However, self-report measures may be influenced by social desirability or, stated otherwise, by the impression students want to give. For example, bullies tend to underestimate their own aggression (Crothers & Levinson, 2004; Österman, et al., 1994; Rigby, 1997) both because they do not realize how much they bully, and because they wish to appear socially desirable. Lagerspetz and colleagues (1988) suggested this may be particularly true when indirect aggression is considered because, by definition, it describes the case of bullies who attempt to hide their behavior (Bjorkvist, 1994). As far as victimization is concerned, whereas Österman and collaborators (1994) found that victims overestimated their role in comparison to peer reports, according to Rigby (1997) and Salmivalli, Lagerspetz and colleagues (1996) victims tend to deny their status. Moreover, Menesini and Gini (2000) and Sutton and Smith (1999), comparing peer nominations with self-nominations, found that students attributed to themselves the most socially accepted roles (e.g. defender) more often than any other roles. Pellegrini (2001) suggested that anonymity and confidentiality may enhance the reliability of the responses both of victims and bullies, partially attenuating the main problem of this sort of measure. Despite these limitations, self-reports are particularly useful when researchers want to explore between-classes variance of a certain behavior (Olweus, in press). Indeed, for this purpose, peer nominations would be less appropriate because they are usually standardized within gender or grade/age group and this procedure remove or considerably reduce the

variance that many developmental psychologists are particularly interested in studying. Moreover, within-classroom standardization is likely to remove or reduce potentially interesting and valid between-classroom variance.

1.3.5 Who is the best informant?

This question probably does not have a conclusive answer. As described in previous paragraphs, each method has its own strengths and weaknesses, and different approaches can each tell us something different (see Schneider, 2000) mainly because different informants may have different views about what happens in a particular situation or context. For this reason a multi-informant approach would probably be the better choice. However, sometimes there are practical limitations in terms of time, cost and availability from people involved that impede its implementation. So, in these cases, it is important for researchers to make a conscious choice, analyzing the goals of their own research and being aware of participants' attentional limitations (e.g., related to the length of the questionnaire) and of the limits and strengths of the measures. When selecting an assessment method, each of these issues need to be considered.

Chapter 2

THE SOCIAL-ECOLOGICAL APPROACH TO BULLYING: THE STUDY OF DEFENDING AND PASSIVE BYSTANDING BEHAVIOR AS A NEW RESEARCH CHALLENGE

In order to talk about an instance of bullying, the presence of one or more bullies and one or more victims is necessary. So, bullying cannot be purely considered an individual aggressive behavior engaged in by a student, but it implies a relationship between someone who bullies and someone who is bullied. The focus on bully-victim dyad, in some way, evokes the relational dimension of bullying, which however cannot be limited to studying individual characteristics related to these two roles. In this chapter, after briefly describing individual characteristics associated with bullying and victimization, two complementary ways to analyze thoroughly the relational dimension of bullying are presented. First, by adopting a social-ecological perspective and presenting different theories about individual-context interaction, we describe some interesting findings about the influence of different contexts (e.g., family, classrooms, peers) on individual bullying behavior or victimization. Then, the Participant Roles Approach (Salmivalli et al, 1996) is presented. This approach describes bullying as a group phenomenon, looking at the different roles that students witnessing bullying can play during bullying episodes. In particular, we pay strong attention to defending and passive bystanding behavior, that will represent the focus of our studies.

2.1 Why do children bully or get bullied?

Analyzing individual characteristics of bullies and victims is not a topic that is strictly relevant to our research goals. However, in order to understand correlates of other behaviors revolving around bully-victim dyad, it is important to understand the

heart of this phenomenon. For this reason, individual risk factors related to bullying and being bullied are briefly summarized below.

2.1.1 Bullies

Past studies on the relations between social information processing and aggressive behavior (e.g., Crick & Dodge, 1994; Dodge & Price, 1994; Harvey, Fletcher, & French, 2001; Huesmann & Guerra, 1997; Randall, 1997) have identified the presence of specific deficits and systematic biases in some components of the social cognition of aggressive children (reactive and proactive categories of aggression were not clearly distinguished). These results led Dodge and colleagues to formulate the Social Skills Deficit model (Crick & Dodge, 1994; Dodge, 1980) which suggests that aggressive behavior occurs because of biases at one or more phases of social information processing (encoding, interpretation, goal selection, response generation, response selection and behavioral enactment). For example, aggressive children tend to interpret ambiguous situations in an aggressive way more than their non aggressive peers (hostile attributional bias) (Dodge & Frame, 1982; Dodge & Somberg, 1987) and seem to have a more limited range of non aggressive answers. For this reason, they are more inclined to choose and perform aggressive behaviors, especially in the case of interpersonal conflicts (Dodge, 1980; Dodge, Bates, & Pettit, 1990; Dodge & Newman, 1981). Some authors have tried to apply this model to school bullying (Boulton & Smith, 1994; Slee, 1993; Smith, Bowers, Binney, & Cowie, 1993). However, very few studies confirmed that Dodge's model can be applied to bullies in exactly the same way as to reactively aggressive children (e.g., Hazler, 1996; Randall, 1997). Specifically, some studies suggested that "response generation" and "response selection" phases may be the most problematic (Camodeca, Goossens, Schuengel & Terwogt, 2003; Menesini & Smorti, 1994; Slee, 1993).

In contrast, other authors stated that the bully should not necessarily be seen as an individual with specific difficulties, since at least some bullies are skilled individuals who take advantage of their high social-cognitive competence to reach personal benefits, such as interpersonal dominance. Indeed, they tend to show average-to-good social intelligence and they are able to understand others' mental states, even though their theory of mind seems to be purely instrumental and used in a Machiavellian way

18

(Andreou, 2000, 2004, 2006; Gini, 2006; Kaukiainen, et al., 1999; Sutton & Keogh, 2000, 2001; Sutton, Smith, & Swettenham, 1999a, 1999b, 2001). So, bullies can be described as individuals characterized by so-called "cold cognition" (Mealey, 1995; Sutton, et al., 1999a).

Thus, although some research suggests bullies may have social-cognitive deficits, other results indicate they may be socially skilled manipulators. Recently, Kaukiainen and colleagues (2002) proposed that there may be two distinct groups of bullies: on the one hand children with learning disabilities and concurrent low social abilities and, on the other hand, children who have no problems in these two areas. The authors investigated four components of social intelligence (person perception, social flexibility, accomplishment of one's own social goals, and behavioral outcomes) and results confirmed the hypothesis of two separate clusters of bullies, "skilled" and "unskilled" bullies.

Although bullies seem to recognize emotions (Sutton, et al., 1999b), several studies revealed that they lack empathy and the ability to appreciate the emotional consequences of their behaviors on other people's (Arsenio & Lemerise, 2001; Caravita, Di Blasio, & Salmivalli, 2009; Ciucci & Smorti, 1999; Eisenberg & Fabes, 1998; Gini, Albiero, Benelli, & Altoe, 2007; Kaukiainen, et al., 1999). Moreover, bullies tend to use moral disengagement mechanisms, egocentric reasoning and other cognitive distortions (Gini, 2006; Menesini, et al., 2003a).

Other risk factors for bullying others include feeling self-efficacious in the use of aggression (Andreou & Metallidou, 2004), being high in masculinity (Gini & Pozzoli, 2006) and having positive attitudes towards the use of aggression (Carney & Merrell, 2001; D. L. Espelage, Bosworth, & Simon, 2001; Rigby & Slee, 1993). Carney and Merrell (2001, p. 369) suggested that bullies "often have a positive outlook on the use of violence to solve problematic situations or get what they want". This follows the theoretical assumptions underlying proactive aggression, that is using aggression as a strategy to achieve a desired goal.

Contrary to the common belief that bullies use aggression in an effort to compensate for inadequate self-esteem or confidence, several authors have indicated that most bullies are comparable to peers on measures of self-esteem and anxiety (Baumeister, Smart, & Boden, 1996; Carney & Merrell, 2001; Craig, 1998; Junger-Tas &

Van Kesteren, 1999; Lagerspetz, Bjorkqvist, Berts, & King, 1982; Olweus, 1997). However, other researchers have suggested that their self-esteem could only reflect an inflated, narcissistic view of themselves (Cairns & Cairns, 1991; Salmivalli, 2001; Salmivalli, Kaukiainen, Kaistaniemi, & Lagerspetz, 1999). This idea was argued, for example, by Salmivalli and colleagues' (1999) results that showed that bullies scored high not only in self-esteem but also in defensive egotism, suggesting that it is this self-enhancing aspect that differentiated bullies from non-aggressive children.

All these results give a picture of the greater amount of research on individual risk factors for bullying behavior. Nonetheless, further research is required. In particular, population-based longitudinal studies are needed to better understand the mechanisms that link multiple risk factors with involvement in bullying, as well as what may protect some children from becoming a bully or a victim.

2.1.2 Victims

One of the characteristics often reported in the literature on risk factors is the low level of self-esteem of victims. In fact, several studies reported strong negative association between self-esteem or self-worth and being bullied (Andreou, 2000; Austin & Joseph, 1996; Boulton & Smith, 1994; Hawker & Boulton, 2000; Karatzias, Power, & Swanson, 2002; O'Moore & Kirkham, 2001; Olweus, 1978, 1997; Prinstein, Boergers, & Vernberg, 2001). As previously mentioned in Chapter 1, because the majority of studies are cross-sectional, it is almost impossible to conclude whether self-esteem as well as anxiety, depression and other internalizing problems are causes or consequences of being bullied. As mentioned in chapter 1, a circularity of influences can be also hypothesized.

As far as internalizing problems are concerned, some studies have suggested that they can be both antecedents and consequences of victimization (Craig, 1998). For example, Hodges and colleagues (Hodges, Boivin, Vitaro, & Bukowski, 1999; Hodges & Perry, 1999) showed that children suffering from internalizing symptoms were increasingly victimized over time and, at the same time, repeated victimization was associated with higher internalizing problems. Moreover, Egan and Perry (1998) presented a longitudinal study on peer victimization, investigating a number of internalizing problems (i.e., withdrawal, anxiety-depression and hovering peer entry

style), global self-worth and perceived peer social competence. Results showed that internalizing problems and perceived peer social competence at Time 1 predicted higher victimization at Time 2. Further, victimization at Time 1 was associated with low perceived peer social competence at Time 2.

In the previous paragraph, we underlined the strong interest in social-cognitive characteristics of bullies. Even if victims' cognitive ability have been investigated less, studies have suggested that victims present some deficits in this area. For example, Kaukiainen and colleagues (2002) found that victimization was associated with lower social intelligence. Moreover, victims showed difficulties in understanding and interpreting others' mental states and emotions and in controlling them (Hodges, Malone, & Perry, 1997; Smith, et al., 1993; Sutton et al., 1999a). In short, being bullied is related to deficits in areas such as social skills, social problem solving, coping strategies, assertiveness, and emotional regulation (Champion, Vernberg, & Shipman, 2003; Greene, 2000; Kochenderfer & Ladd, 1997; Mahady-Wilton, Craig, & Pepler, 2000; Perry, et al., 1988; Schwartz, et al., 1998).

Other individual risk factors deal with particular characteristics of the victim, such as having physical disabilities, chronic diseases or special education needs (Flynt & Morton, 2004; Z. Marini, Fairbairn, & Zuber, 2001; Mishna, 2003). Moreover, students from ethnic minority groups often experience more racist name calling (Monks, Ortega-Ruiz, & Rodriguez-Hidalgo, 2008; Zhou, Peverly, Xin, Huang, & Wang, 2003), even though bullying most commonly occurs within (rather than between) ethnic groups, and great ethnic diversity within classrooms can have positive effects on individual students' adjustment (e.g., Bellmore, Witkow, Graham, & Juvonen, 2004). Finally, recent studies (e.g., Rivers, 2001; Williams, Connolly, Pepler, & Craig, 2005) have revealed that, especially in secondary school, students may be victims of homophobic bullying because of their sexual orientation, through physical assault and name-calling, from their schoolmates or teachers. Warwick, Chase, Aggleton, & Sanders (2004), in their review, found that 30–50% of same-sex attracted young people in U.K. secondary schools had experienced homophobic bullying.

Notwithstanding the great number of studies that report the individual risk factors for peer victimization, longitudinal studies are required to better understand the developmental associations between various variables and victimization.

2.2 Social-ecological perspective on bullying

As above mentioned, in this paragraph we describe how the passage from an individualistic perspective to an ecological approach to bullying has been accomplished. First, we present some theoretical approaches that take into consideration not only individual characteristics, but also the role of the environment in influencing personal behavior. Then, we analyze why some specific environments (e.g., family, peers, etc.) are important for behavioral development and the way in which these context have been investigated in relation to bullying phenomenon. Swearer and Doll (2001) described bullying as the outcome of the interaction among bullies, victims, and their environments. Similarly, Espelage (2004) defined bullying as "an ecological phenomenon that is established and perpetrated over time as a result of the complex interplay between the children, their family, peer group, school and community as well as their culture" (p. 4).

The idea that different environments influence individuals is not a new concept. In fact, much has been written on the reciprocal interaction between the individual, family, peers, school, community, and so on (Bronfenbrenner, 1979; Burstyn, et al., 2001; Coie & Jacobs, 1993; Fraser, 1996; Garbarino, 2001; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998; Jonson-Reid, 1998; G. W. Ladd, 2003; Linney, 2000). Far from representing an exhaustive overview of the multiple theories already existing in the literature, the following paragraphs instead aim to offer to the reader a brief presentation of some of these theoretical perspectives and their previous application in the field of bullying research, in order to provide a conceptual framework to our studies (see Chapters 4 and 5).

2.2.1 Theories on interactions between individual and context: a brief overview

2.2.1.1 Bronfenbrenner: the ecology of human development

Bronfenbrenner (1979) has been the primary contributor to the Ecological Systems theory, placing child development in an ecological perspective. He considers development within a complex system of relationships affected by multiple levels of the surrounding environment and the relationships between individuals and their environments are viewed as "mutually shaping". So, he interprets the child's interaction

with the environment as an active process, where the child is perceived as part of nested systems that directly or indirectly affect learning and development. Bronfenbrenner describes the individual's experience "as a set of nested structures, each inside the next, like a set of Russian dolls" (Bronfenbrenner, 1979, 22) and suggests that individuals are part of interrelated systems that locate the individual at the center and move out from the center to include all systems that affect the individual (Bronfenbrenner, 1979).

Bronfenbrenner's ecological theory defines four types of systems which contain roles, norms and rules that shape development. The child is at the center of, and actively involved with, this interplay of systems. The systems include a microsystem, a mesosystem, an exosystem, and a macrosystem.

(a) The microsystem is the small, immediate environment the child lives in (e.g., family and classroom). So, it can be defined as the primary unit around a child directly influencing its development. Bronfenbrenner uses the term bi-directional to describe the influential interactions that take place at this level, for example between mother and child, child and father, child and teacher, suggesting that the influences go in both directions.

(b) The mesosystem consists of the "connections between children's immediate settings and surroundings. It encompasses connections between microsystems, such as home, school, neighborhood, and child-care center, that foster children's development." (Berk, 2000, p.28). So, the mesosystem describes how the different parts of a child's microsystem work together for the sake of the child. The interaction between two or more microsystems can be both positive (e.g., when families and schools are working together to support children's learning) and negative (e.g., if the child's two sets of caretakers, mom with step-dad and dad with step-mom, disagree how to best raise the child and give the child conflicting lessons).

(c) The exosystem refers to social settings that affect the child without directly including the child, such as the parent's workplace, social organizations or health services in the community. So, the exosystem does not cross the child's path directly, but indirectly an exosystem can have a huge affect on him/her, influencing his/her microsystem by the type of assistance they provide to families and schools. For example, if parents work for a company that doesn't have a flexible work schedule, the parent may not be able to come home and take care of the child when he/she needs help with

homework or when he/she is ill. Similarly, if parents receive a work promotion, this may have a positive indirect affect on the child because they can be able to afford something more.

(d) The macrosystem is represented by national government, cultural values, economy, the society and cultural norms in which children are raised and have influence on all systems. This level can also affect a child either positively or negatively.

Understanding the interactions of these systems is the key in understanding how a child develops and why he/she behaves in a certain way. An interesting application of this theory to the issue of school bullying is suggested by Espelage and Swearer (2004, p. 4): "The microsystem includes the child's relationship with one system (e.g., home *or* classroom *or* playground). The microsystem depicts the child's immediate interaction with others, and includes others' reactions to bullying behaviors. This conceptualization of the microsystem also includes the status of the child along the bully/victim continuum. Thus, the bully, bully-victim, victim, or bystander interacts with others in his or her social environment, and this interaction either exacerbates or mitigates bullying and/or victimization behaviors. The mesosystem includes the interrelationship between systems in the child's life (e.g., home *and* school). The mesosystem depicts the congruence between two or more environments, such as the congruence between home and school regarding bullying behavior. The exosystem includes influences from other contexts, such as the effect of a school district's antibullying policy or parental involvement in the school system. Finally, the macrosystem is the influence of cultural mores, such as societal attitudes toward bullying behaviors".

2.2.1.2 Transactional theories and child by environment approach

Several theories and models derive from ecological systems theory. Similarly to Bronfenbrenner's model, transactional theories of child development (Caspi, Bem, & Elder, 1989; Sameroff & MacKenzie, 2003; Sroufe & Rutter, 1984) emphasize the reciprocal influences of a child and his or her environment, so that child characteristics construct the social context, which in turn influences the child's development (Caspi, et al., 1989; Sameroff & MacKenzie, 2003; Scarr & McCartney, 1983; Sroufe & Rutter, 1984). Indeed, transaction means that actors and their environments cannot be separated (Werner & Altman, 1998), so that the focus of analysis is the ever changing

24

relationship between actors and context. Transactional processes include – in a transforming way – the acting persons as well as their environmental backgrounds (Werner & Altman, 1998). Moreover, this approach emphasizes that the most proximal influences, such as family and friends, may have the greatest effects on developmental outcomes (Cicchetti, Toth, & Maughan, 2000; Sameroff, 1995).

The so-called child by environment models (Ladd, 2003 for a review) are part of this theoretical perspective. This approach states that children come to social settings with different traits and skills that partially determine the kinds of interactions they experience. Both the child's behavioral characteristics and relational environments codetermine children's adjustment (Coie, et al., 1993; G. W. Ladd, 2003). Child by environment models have been adopted above all when peer interactions have been considered, underlining that it is the nature and quality of the peer experiences that are principally responsible for subsequent adjustment and changes in adjustment. Several applications of these models have been reported in the literature. Some data suggest that child by environment models (generally called "person by environment" models when adults are considered) are also useful to understand choices of physical activity (Magnusson & Stattin, 2006), perceived personal masculinity and femininity (Burnett, Anderson, & Heppner, 1995), drinking behavior (Wechsler & Wuethrich, 2002) or internalizing problems (Ladd, 2006).

The child by environment approach can be considered a moderator model because it posits that whether or not personal characteristics actually cause a specific behavior or condition is contingent upon the presence or absence of other risk factors, so that neither the child nor environmental factors alone are responsible for the emergence of that behavior or condition. It is the interaction that determines the risk. If we apply this consideration within the bullying field, the assumption is that, for example, particular combinations of child and environmental factors lead, to a greater or lesser extent, to bullying behavior or peer victimization. This conclusion has been proposed by several researchers adopting child by environment approach to study bullying. For example, Caravita, Di Blasio and Salmivalli (2009) found that individual (empathy) and interpersonal (social status) variables interact in predicting bullying and defending behavior. In particular, social preference moderated the association between affective empathy and defending behavior among primary and middle school boys. Indeed,

affective empathy was related to defending behavior only among boys who were well-liked by their peers. A longitudinal research on the same sample (Caravita, Di Blasio, & Salmivalli, 2007) revealed that the stability of defending behavior over time was also influenced by social preference in the primary school group and among middle school girls, so that children and adolescent girls who defended their peers and were well-liked were more likely to continue their defending behavior one year later.

As far as victimization is concerned, researchers have shown that both child-level behaviors (e.g., aggression) and context-level factors (e.g., peer group rejection) are predictive of peer victimization (Schwartz, Dodge, & Coie, 1993) and closely associated with one another (Coie & Kupersmidt, 1983; Perry, et al., 1988; Rubin, Bukowski, & Parker, 2006). More interestingly, it is their interaction that turns out to be particularly problematic (Kochenderfer-Ladd, 2003), so that aggressive-rejected children are more likely to be victimized than only aggressive or only rejected children and have a higher risk of adjustment problems, such as loneliness (Schwartz, 2000; Schwartz, Proctor, & Chien, 2001).

Recently, child by environment models have been adopted that describe the role of social norms (e.g., Henry et al., 2000). For example, it has been suggested that whether aggressive children are accepted or victimized by their peers is dependent upon the social norms expressing appropriate behavior within the group (Henry, et al., 2000; Wright, Giammarino, & Parad, 1986). In particular, several studies found that aggressive children are more likely to be bullied when they are included in friendly or non-aggressive groups and are less likely to be victimized in context where aggressive behavior is normative (DeRosier, Kupersmidt, & Patterson, 1994; G. W. Ladd & Burgess, 1999; Wright, et al., 1986). The nature of social norms is described in greater depth in the following paragraph.

2.2.1.3 The role of injunctive and descriptive social norms on individual behavior

Social norms are frequently confused with codified rules. However, social norms are informal and even if, like legal ones, they are public and shared, they are not supported by formal sanctions and may not be enforced at all (Bicchieri, 2006). When they are enforced, the sanctions are informal. For example, the violation of a group norm can cause gossip, ostracism, or dishonor for the transgressor. However, some such

norms may become part of our system of values, and we may feel a strong obligation to obey them. Despite a wide literature within social psychology (see Hechter & Opp, 2001 for a review), there is a long-standing controversy concerning the explanatory and predictive value of social norms. Several authors consider these concept as crucial to a complete understanding of human social behavior (e.g., Berkowitz, 1972; Fishbein & Ajzen, 1975; Kerr, 1995; Larimer & Neighbors, 2003; McKirnan, 1980; Staub, 1972; Triandis, 1977; Triandis, Marin, Lisansky, & Betancourt, 1984; van Empelen, Schaalma, Kok, & Jansen, 2001), whereas other researchers view the concept as too vague, often contradictory, and ill-suited to empirical test (e.g., Krebs, 1970; Krebs & Miller, 1985; Marini, 1984). Part of the controversy may be due to confusion concerning the meaning of the term (social norms *vs* codified rules), as above mentioned, but also due to the existence of different types of social norms. The term "norm" has more than one meaning in scientific usage (Schaffer, 1983). Indeed, it is important to know that, despite the shared label "norms", evidence as to what others commonly do and evidence as to what others commonly approve represent separate sources of human motivation (Deutsch & Gerard, 1955; Kaplan, 1989).

In line with this consideration, a commonly used distinction is between *injunctive* and *descriptive* group norms (Cialdini, 1991). Injunctive social norms refer to one's perception of what others believe to be appropriate conduct or, in other words, behaviors which are perceived as being approved of by other people or, once again, norms that characterize the perception of what most people approve of or disapprove of (the norms of "ought", Cialdini, 1991). We conform to injunctive norms because we have reasons to fulfill others' normative expectations (Bicchieri, 2006). For example, we can consider conformation to other people's expectations as a means of being part of a group or of being accepted. Otherwise, we can perceive a sense of duty in conforming to other people's norms because of their social status (e.g., work boss, popular peer) or for the fear of consequences.

Descriptive norms are conceptualized as what most people do (the norms of "is", Cialdini, 1991), or "what people commonly do in certain situations, what constitutes 'normal' or 'regular' behavior" (Bicchieri, 2006, p. 29). Chang (2004) offered a slightly modified definition of descriptive norms, underlining that, in a given social context (e.g., classroom), there are as many descriptive norms as the potential behaviors are. In these

terms, each behavior is associated with a descriptive norm that defines the frequency of that behavior within a group. Descriptive norms motivate individuals by providing them with evidence as to what will likely be effective and adaptive action, so that if everybody is doing or thinking or believing something, this must be a sensible thing to do or think or believe. Conformity to a descriptive norm may be motivated by a desire to imitate others' behavior in uncertain or ambiguous situations. In such circumstances, others' behavior provides us with information about the appropriate course of action, offering an information-processing advantage and a decisional shortcut in order to chose how to behave (Bicchieri, 2006; Cialdini, 1988).

At the beginning of this paragraph, we talked about the controversy surrounding the contention about how much group norms account for human behavior. This disputation is related above all to injunctive norms. Several authors (Darley & Latanè, 1970; Krebs; 1970; Krebs & Miller, 1985; Marini, 1984) have pointed out, for example, that frequently within the same societal group people have different expectations, so different injunctive norms can exist. Consequently, it would be not important which type of behavior occurs, because it could be attributed to the action of norms. These authors argue that the majority of people's behavior is only sometimes consistent with the dominant social norm. So, the question was: if the same norms are present both when behavior is inconsistent and when it is consistent with them, why one could say that norms mediated any of it?

Taking this criticism as a starting point, Cialdini and collaborators (Cialdini, Reno, & Kallgren, 1990) formulated a second theoretical refinement (after the distinction between descriptive and injunctive norms) that involves the contention that a particular social norm, either descriptive or injunctive, is unlikely to influence behavior unless it is focal and salient for an individual at the time of behavior. So, even if some norms are constantly in place within a group or culture, they are not constantly in force. A variety of situational factors may draw attention to a relevant norm or distract attention from it (Kallgren, Reno, & Cialdini, 2000). A particular situational factor could be represented by the "source of norms" and by the level of importance that it has for children. For this reason, we selected family, peers and teacher as potentially important sources of norms in order to understand students' behavior during bullying episodes. In the following paragraphs we explain why these

sources are considered important in influencing children's behavior, beliefs, social adjustment and so on, focusing especially on behavior during bullying episodes. Particular attention is paid to primary and middle school children, who represent the two age groups that participated in our studies. Age differences that emerged in the literature are presented. As the reader can see, our analysis is focused on those contexts that make up Bronfenbrenner's microsystem.

2.2.2 Different contexts influencing individual behavior with a special focus on behavior during bullying episodes

2.2.2.1 Family

Family can be considered as a social system implying a network of interdependent relationships among its members (Parke & Buriel, 1998; Lerner et al., 2002). Within these relationships, parents can positively influence their children in different ways: giving direct instruction, acting as models, and providing feedback (Kail, 2009). Direct instructions involve telling a child what to do, when, and why. This can be defined as a sort of coaching that can help children to be more socially skilled and get along better with their peers. Moreover, children can learn how to interact with others, what should be and should not be done, simply by watching how their parents interact, as suggested by social learning theory. Finally, parents point out to children whether their behavior is appropriate and should continue or whether it is inappropriate and there is the need for feedback to stop it, that is reinforcement or punishment. Parents sometimes unintentionally reinforce the behavior they want to discourage, a situation called the negative reinforcement trap (Patterson, 1980). Parents can also influence children socialization through their social choices. For example, Ladd and Pettit (2002) have shown that children whose parents provide them with frequent opportunities for peer interaction tend to get along better with their peers.

Over the past four decades, researchers have found significant correlations between parenting practices and different children's behavior problems (Di Blasio, 2005). In fact, investigating school adjustment and internalizing or externalizing problems in school-age children, several studies have shown that diagnosed psychopathology in parents (e.g., depression, antisocial personality) is related to their children's academic and social problems, including problems with learning, aggression,

shyness, low self-esteem, and depression (e.g., Patterson & Capaldi, 1991; Sameroff, Seifer, Baldwin, & Baldwin, 1993; Zahn-Waxler, Duggal, & Gruber, 2002). Children's internalizing behavior has been linked to their parents' depression, lack of care, overinvolvement, overprotection, overcontrol, or the loss of a parent (Cummings, DeArth-Pendley, Du Rocher Schudlich, & Smith, 2001; Rutter & Sroufe, 2000). On the other hand, children's externalizing behavior has been linked to their parents' harsh, coercive, or inconsistent discipline practices, rejection of the child and mothers' hostility and intrusiveness (Kremen, 1996; Loeber & Dishion, 1983; Lyons-Ruth, Alpern, & Repacholi, 1993; Pettit, Harrist, Bates, & Dodge, 1991; Rothbaum & Weisz, 1994).

Because parenting is linked to children's adjustment (Cattelino, Calandri, & Bonino, 2001; Conger, Conger, Elder, & Lorenz, 1992; Heinicke, 2002), the assumption is that relations between parents' personality characteristics and children's adaptation may be mediated by the quality of the parent-child relationship. Moreover, it has become increasingly clear that the relationship between the parents also affects the child's adjustment at school (e.g., Grych, Fincham, Jouriles, & McDonald, 2000).

The work of Baumrind on parenting styles (1973) is particularly interesting because it focused specifically on school ages. Her theory (see Maccoby and Martin's comprehensive review, 1983) is that two orthogonal dimensions summarize much of the variance in parents' behavior towards their children: warmth and responsiveness, and structure and control. Authoritative parenting (i.e., high parental warmth combined with high, but not punitive, control) during the preschool period was associated with children's instrumental competence, including academic skills and social competence, 6 years later in middle school (Baumrind, 1989; Cowan, Cowan, Schulz, & Heming, 1994). Authoritarian or uninvolved parenting styles were associated with high levels of behavior problems of the internalizing and externalizing type (Maccoby & Martin, 1983; Steinberg, 2001).

The role of the family in the development and maintenance of bullying has been the subject of a few studies. In particular, researchers have investigated relationships between bullying and victimization, on the one hand, and parenting styles and relationships with parents, on the other hand. Bullies tend to perceive their parents as authoritarian, punitive, and less supportive (Baldry & Farrington, 2000), and they report less cohesiveness to their parents than do other children (Bowers, Smith, & Binney,

1994). Vieno and colleagues (Vieno, Gini, Santinello & Mirandola, 2007) found that authoritarian maternal style was related to bullying behavior in Italian adolescents and that negligent parenting was a further risk factor for bullying in boys. Moreover, bullying behavior is associated with parents' use of physical discipline, a great amount of time spent without supervision, poor family functioning, harsh child-rearing practices and inconsistent parenting (Baldry & Farrington, 1998, 2000; Carney & Merrell, 2001; Espelage et al., 2000; Gage, Overpeck, Nansel, & Kogan, 2005; Haynie et al., 2001; Olweus, 1993; Perren & Hornung, 2005; Rigby, Slee, & Cunningham, 1999; Smith, 2004). Finally, Stevens and colleagues (2002) found that bullies perceived less family cohesion, expressiveness, organization, control and expected more domestic conflicts when compared to children not involved in bullying.

Some authors suggested that maladaptive parenting styles can promote the development of proactive types of aggression through social-cognitive processes (e.g., Dodge, 1991). For example, coherently with social learning theory, if children see their parents using aggression during interpersonal interactions and in order to reach their goals, they may learn that aggression is an effective means to achieve desired outcomes (Bowers et al., 1994; Duncan, 2004; Olweus, 1993; Rican, 1995). This is consistent with the evidence that bullies may learn to behave aggressively by observing adult conflict and aggression in preschool years (Schwartz, Dodge, Pettit, & Bates, 1997). Moreover, parents could influence specific goal orientations, for example reaching admiration and dominance, which, if associated with a positive view of aggression and with low empathy, can result in proactive aggression, such as bullying. Finally, parents' attitudes towards the issue of bullying emerged as important factor in influencing children's behavior. For example, an Italian study (Fonzi, Ciucci, Berti, & Brighi, 1996) showed that bullies (and victims) perceived their parents as characterized by indifference towards bullying compared to uninvolved children.

Students who are bullied can instead have histories of insecure attachment, especially anxious/resistant attachment (e.g., Jacobson & Wille, 1986; Troy & Sroufe, 1987) that led to develop feelings of helplessness and personal incompetence, which are attributes that 'encourage' victimization. Victims' families tend to be over-protective and overinvolved in their children's lives and to adopt child-rearing practices that threaten the child's sense of self. Several studies, in fact, have indicated that mothers of victims

excessively control their children (Ladd & Ladd, 1998; Olweus, 1992; Rigby, 2002), undermining children's self-confidence in their own ability to be appropriately assertive in peer relationships (Finnegan, Hodges, & Perry, 1998). This seems particularly true for male victims (Baldry & Farrington, 1998; Finnegan et al., 1998; Oliver, Oaks, & Hoover, 1994; Perry, Hodges, & Egan, 2001), whereas victimized girls report more negative attitudes toward their mothers than non-victims (Rigby, 1993) and describe them as emotionally abusive and rejecting of their daughters (Finnegan et al., 1998). Moreover, female victims tend to experience poor functioning, inadequate communication and lower affect in the family context than students who are not bullied.

Supported by the results that emerged in the longitudinal study of Marsh and colleagues (Marsh, Parada, Craven, & Finger, 2004), we may conclude that good relations with parents predict a significant reduction in both bullying and being bullied. However, it is important to underline that families often are not composed only by parents, but by siblings too. Surprisingly, the role of siblings has received very little attention in bullying literature, even though they might be crucial for social development (Bank & Kahn, 1982; Stocker & Dunn, 1990; Stormshak, Bellanti & Bierman, 1996). For example, Dunn and colleagues (Dunn, 1996; Dunn, Slomkowski, & Beardsall, 1994) and Patterson (1986) showed that, when sibling relationships are friendly, children tend to have close friendships outside of the family (Dunn, 1996), whereas sibling relationships marked by hostility and aggression are associated with antisocial behavior toward peers (Patterson, 1986). Similarly, siblings' bullying and victimization were significantly associated with the same behavior or condition in the peer context (Menesini, Camodeca, & Nocentini, 2009). Moreover, older siblings are a source of care and comfort for younger siblings when they are distressed or upset (Gass, Jenkins, & Dunn, 2007; Kim, McHale, Crouter, & Osgood, 2007), and when older children do well in school and are popular with peers, younger siblings often follow suit (Brody, Kim, Murry, & Brown, 2003). Similarly, children bullied by older siblings at home are likely to become bullies or victims at school (Wolke & Samara, 2004).

2.2.2.2 Teachers

Relationships with teachers have an impact on students' learning and academic achievement. (Brophy & Hancock, 1985; Ford, 1982; Urdan & Maehr, 1995). Even if most

research has focused on academic outcomes, there is growing evidence that perceptions of support from and relationships with teachers also affect students' psychosocial adjustment, such as self-esteem, academic motivation, school performance, sense of belonging to school and peer acceptance (Harter, 1996; Hughes, Cavell, & Willson, 2001; Roeser, Midgley, & Urdan, 1996).

Consistent with the model of socialization (Wentzel, 2002), some authors (Barber & Olsen, 1997; Howes & Hamilton, 1992, 1993; Howes & Matheson, 1992; Idsoe, Solli & Cosmovici, 2008) compared effects of connection between the child and the teacher to parent–child connection. Similar to how parents socialize and influence children, teachers'modeling and caregiving styles communicate goals and values that can promote students' school adjustment. Interacting with students through instruction and classroom management teachers socialize students toward academic goals and socially acceptable behaviors, creating social environments in which students learn to regulate their behaviors, engage in learning processes, and interact with other students. So, the connection with the teacher adds to the child's other internal models of relationships by confirming or challenging them, modifying them, and so on. Therefore, it is clear that teachers exert a significant influence on students' school experiences, school adjustment and psychosocial wellbeing. For example, Murray and Greenberg (2001) found that primary school students who reported more positive bonds with their teachers obtained higher scores on self- and teacher-reported social and emotional adjustment outcomes. In addition, primary school children appear to make judgments about their classmates based on perceptions of how the target child interacts with and is perceived by the teacher, which has implications for peer acceptance and rejection (Hughes, Cavell, & Jackson, 1999). These results have been confirmed in research on middle school students, as well. The study conducted by Davis (2003) revealed that the more positively teacher-student relationships were perceived by pupils, the fewer adjustment difficulties students showed. Other findings suggest that teacher support can help children and adolescents to deal with their emotional difficulties (Davis, 2003; Midgley & Edelin, 1998).

Furthermore, students who perceive good interactions with their teachers are more likely to report turning to their teacher when they need emotional or academic support, as well as adopting their teacher as a behavioral model. Conversely,

relationships with teachers characterized by conflict and lack of warmth were linked to problem behaviors in students, including inattention, internalizing, and disruptive and aggressive behaviors (Davis, 2001; Pianta & Nimetz, 1991). A study of Silver and colleagues (Silver, Measelle, Armstrong, & Essex, 2005) showed that a decrease in externalizing behavior during the school transition was associated with teacher–student closeness, especially for children with the highest levels of externalizing behavior upon school entry.

Despite the results reported above, the role of teachers in the prevention and maintenance of students' aggressive and bullying behaviors has seldom been considered. We know that care and support from teachers reduce students' aggression and delinquency (Reinke & Herman, 2002), decreased the risk of bullying (Natvig, Albrektsen, & Qvarnstrom, 2001) and buffer the impact of other risk factors in aggressive children (Meehan, Hughes, & Cavell, 2003). Teachers, as all members of the school community, contribute in creating school climate and in dealing with aggressive behaviors within classrooms. Consistent with the notion of teachers as socializing agents, Yoon and Barton (2008) suggested that "teachers can make a significant contribution to school violence prevention by (1) promoting academic success for all children, (2) building a prosocial, nonaggressive environment where caring relationships are fostered in all levels of relationships, (3) promoting tolerance of and sensitivity to individual indifference, and (4) implementing appropriate management of aggressive behaviors" (Miller, 2008, p. 252).

An indirect evidence of the important role of teachers in bullying phenomenon may derive from the effects of those anti-bullying programs in which teachers are trained to effectively intervene when bullying occurs. In such circumstances, indeed, teacher skills to manage relationships and interactions between students are often associated with the occurrence of bullying behavior (e.g., Olweus, 1991; Roland, 1989; Smith, 1997).

By adopting a social cognitive perspective, the effects of teacher reaction to bullying can be explained in various ways. First, teachers can have a direct effect on the bullying behavior through the sanctions and regulations they apply when bullying occurs. Second, potential bullies may observe other students being sanctioned because of bullying (observational learning). Third, if students observe models who get away

34

with bullying without being sanctioned by the teacher, such negative behavior may recur.

2.2.2.3 Peers and classrooms

As already suggested, the study of bullying cannot be reduced to an analysis of individual characteristics, especially since this phenomenon involves several processes within the peer group, and most important the class group, in which bullying takes place (Salmivalli, 2009). Investigating peer group level is really complex and a first main distinction is more than necessary. Indeed, we can analyze peer groups by specifically focusing on different behavior that students adopt during bullying episodes (e.g., Participant Roles Approach, Salmivalli et al., 1996) or on the influences on individual behavior of peer behavior, beliefs and norms. In this section we describe this last concept, whereas participant roles approach is explained in the next paragraph. We take into consideration relationships and influences in quite large peer groups, classrooms groups in particular, purposefully omitting close friendships or romantic relationships that, although interesting, are not specifically relevant for our research goals.

Although parents are often considered the primary contributors to their children's development, their influence, relative to peers, decreases as children enter early adolescence. At the same time, the role of peers in influencing children's cognitions, behavior, and overall personality characteristics increases (Harris, 1995). When children enter primary school, the context of peer relations changes dramatically (Rubin et al., 2006). The number of peers increase, children are exposed to different groups of peers and interact with them in situations that range from being reasonably structured with adult supervision (e.g., a lesson in the classroom) to being largely unstructured with minimal adult supervision (e.g., a playground during school playtime). During this period, children become more skilled at initiating and maintaining interactions and they use more sophisticated methods to resolve conflicts, such as negotiation (Laursen, Finkelstein, & Betts, 2001).

Peer groups, like many other groups, often have a well-defined structure with a leader to whom all other members of the group defer. All members know their position in the hierarchy and they yield to members who are above them in the hierarchy and assert themselves over members who are below them. This "dominance hierarchy" is

useful in reducing conflict and allocating resources within groups because every member knows his or her place (Kail, 2009). The position of members in the hierarchy is related, for younger children and especially boys, to physical power, so that the leader is usually the most physically intimidating child (Hawley, 1999). Among girls and older boys, hierarchies are more commonly based on individual traits that are associated with the group's main function (Cassell, Huffaker, Tversky, & Ferriman, 2006; Hartup, 1983).

As suggested by Prinstein and Dodge (2008), one of the most consistent finding revealed in the social science literature pertains to the remarkably potent effects of peer influence. Groups establish norms and standards of behavior and may pressure members to conform to these norms. The common belief is that students, above all teenagers, exert enormous pressure on each other to behave antisocially. In reality, peer pressure is neither always powerful nor always malign. For example, most adolescents resist peer pressure to behave in ways that they consider antisocial, such as stealing (Brown, Lohr, & McClenahan, 1986). Such resistance increases from mid- to late adolescence (Steinberg & Monahan, 2007). Moreover, peer pressure can be positive. Peers often support and exhort one another to work hard in school, to participate in school activities, or to become involved in community action projects (Kindermann, 2007).

As suggested by Kail (2009), peer pressure is most powerful when the standards for appropriate behavior are not clearly defined. For example, standards on smoking, drinking, and using drugs are often nebulous. Drinking can be a good case in point. Parents and health operators usually discourage teens from drinking, but Italian culture is filled with youthful models who drink, seem to enjoy it, and suffer no apparent ill effects. In contrast, they seem to enjoy life even more. With such contradictory messages, it is plausible that youths look to their peers for answers about correct behavior. Consequently, some students drink to conform to their group's norms, whereas others abstain, again reflecting their group's norms. This could be true for smoke, drugs or risky sexual behavior, as well.

Results of several studies related to peer influence could be summarized in three important points. First, peer influence is multidirectional. Indeed, it is capable of encouraging healthy as well as harmful behavior. Second, it is multidimensional, since it operates in a variety of ways. Third, peer influence is a complex process that, at present,

is not fully understood (Hartup, 2005), partly because there has been more emphasis on the outcomes than the process of influence.

Some research on peer influence showed that social interactions occur more often among similar individuals than among dissimilar individuals. This phenomenon is called *homophily* (Cairns, Cairns, Neckerman, Gest, & Gariepy, 1988; Dishion, Andrews, & Crosby, 1995; Lazarsfeld & Merton, 1954). The two commonly used explanations for homophily are selection and socialization. Selection effects refer to the tendency of young people to affiliate with peers who exhibit similar attitudes or behaviors to themselves. Socialization effects, on the other hand, refer to the process by which youths' behavior may be affected by their affiliation with other peers, so that similarity between members grows over time as a result of peer influence.

Peer homophily has been examined among different populations of youth with respect to a wide variety of attitudes and behaviors. With the exception of some not-consistent findings, there is now consistent evidence that supports selection and socialization effects for a wide variety of behaviors: delinquency (Thornberry & Krohn, 1997), violence (Elliott & Menard, 1996), antisocial behavior (Keenan, Loeber, Zhang, Stouthamer-Loeber, & Van Kammen, 1995), risky sexual behavior (Dishion, 2000), substance use behaviors (Andrews, Tildesley, Hops, & Li, 2002; Bosari & Carey, 2001; Dishion & Skaggs, 2000), weight-related behaviors (Christakis & Fowler, 2007; Paxton, Schutz, Wertheim, & Muir, 1999), suicidal behavior (Brent et al., 1993; Prinstein, Boergers, & Spirito, 2001), and internalizing symptoms (Prinstein, 2007; Stevens & Prinstein, 2005). Similar selection and/or socialization effects have been demonstrated for prosocial behaviors and health-promoting behaviors, such as charity work, altruism or fitness exercises (Barry & Wentzel, 2006).

The main group (i.e. the class group) in which most bullying takes place differs from many social groups in an important aspect: the membership is involuntary and not under individual control, so that the victim cannot easily escape his or her situation and the other group members cannot just leave either. Although students cannot choose their classmates, social selection processes (Kandel, 1978) take place within classrooms, resulting in cliques and friendship dyads that consist of similar students. As mentioned above, for the sake of simplicity we decided not to deal with this topic, but the reader can find several studies in the literature about relationships between bullying and

selection-socialization processes in groups of friends (e.g., Espelage, Holt, & Henkel, 2003; Olthof & Goossens, 2008; Salmivalli, Huttunen, & Lagerspetz, 1997; Witvliet et al., 2009).

Focusing on the classroom group, we know that class contexts differ from each other in terms of their levels of bullying and victimization. Two recent studies (Kärnä et al., 2008, in press) measuring participant roles behavior reported significant between-class variances, ranging from 10% for bullying to 35% for defending behavior. Classroom differences have been explained in terms of "class norms" related to bullying. Such norms might help to understand why bullying is more likely to occur, or why peers witnessing bullying are more likely to intervene on behalf of the victim in some classrooms than in others. Indeed, it should be remembered that bullying behavior is sometimes approved by social norms that do not necessarily reflect the private attitudes of most group members but nevertheless promote compliance within the group (Espelage, et al., 2003; Gini, 2006b, 2007; Juvonen & Galvan, 2008). In line with the person-group dissimilarity model (Wright et al., 1986), Sentse and colleagues (Sentse, Scholte, Salmivalli, & Voeten, 2007) showed that in classrooms where bullying occurred at high levels (i.e., where it was normative), it was less likely to be related to peer rejection, and more likely to be associated with peer preference. Similarly, Dijkstra, Lindenberg, and Veenstra (2008) recently showed that bullying was socially accepted especially in classrooms where popular students engaged in bullying at high levels, suggesting that it is the behavior of the most popular children that can become normative in a classroom.

Finally, characteristics of the classroom context can moderate the consequences of victimization. For instance, there is evidence that victims are less rejected in classrooms in which victimization is normative, that is, occurring at high levels (Sentse et al., 2007). Furthermore, in hypothetical bullying scenarios in which the victim was defended by a peer, students reported higher victim liking compared to scenarios in which other peers supported the bully or remained passively aside (Gini, Pozzoli, Borghi, & Franzoni, 2008)

Salmivalli and Voeten (2004) found that class attitudes towards bullying also partly explained classroom-level variation in behavior during bullying episodes. Indeed, these authors found that anti-bullying norms positively predicted defending behavior

and were negatively associated with bullying and reinforcing the bully. Similarly, normative indifference negatively predicted individual defending behavior. However, as mentioned above, attitudes often do not coincide with behavior. So-called pluralistic ignorance (Katz & Allport, 1931; Prentice, 2008), which is a classical concept in social psychology, has recently been discussed in the context of bullying (Juvonen & Galvan, 2008). This theoretical model refers to a situation when group members privately reject the norm (e.g., they think that bullying is wrong), but at the same time believe that others accept it. For example, when very few children in a school defend victims of bullying or openly disapprove bullying, children might infer that the others think that bullying is okay (see Juvonen & Galvan, 2008). Such a misperceived norm might have an impact on their public reactions to bullying. The analysis of how the perception of group norms and peer expectations may shape behavior were analyzed by Rigby and Johnson (2006) who recently found that believing that friends expected classmates to support the victims was among the most important predictors of students' expressed intention to intervene, indicating that children's reactions to bullying episodes may be affected by perceived normative pressure from the peer group. However, Rigby and Johnson's study was limited by the fact that they assessed the students' intention to intervene in favor of the victim, rather than their actual intervention.

2.3. Studying defending and passive bystanding behavior: The Participant Role Approach.

When bullying occurs in school, most students are not only aware of it, but they are also present and witness it firsthand (Atlas & Pepler, 1998; Craig & Pepler, 1997; Craig, Pepler, & Atlas, 2000). So, what do the other students do when the bully is harassing the victim? Salmivalli and colleagues (1996) focused on this question and through peer ratings identified three main participant roles, beyond bullies and victims, that children may play during bullying episodes. In this study the authors identified some children as typically defending the victim (around 17%), whereas others were classified as "followers", either assisting or reinforcing the bullies (around 26%). Finally, a group of children were identified as remaining passively aside and not intervening—the so-called "outsiders" (around 24%). Since outsiders are those who usually withdraw

from the scene, deny any bullying is going on, become avoidant onlookers, or remain as a silent audience, they have also been considered as typical "passive bystanders" (e.g., Cowie, 2000; Menesini, Codecasa, Benelli, & Cowie, 2003b). These roles were relatively stable and were related to children's and adolescents' future behavior in bullying situations (Salmivalli et al., 1998). The validity of this approach has been replicated in many countries over the last decade, and several authors (Andreou & Metallidou, 2004; Gini, Albiero, Benelli & Altoè, 2007, 2008; Goossens & Dekker, 2006; Menesini & Camodeca, 2008; Schäfer & Korn, 2004; Sutton & Smith, 1999; Tani, Greenman, Schneider, & Fregoso, 2003) have begun to study the psychological correlates of those roles, such as their personality traits, social cognition, moral reasoning, empathy, and self-efficacy, in order to explain why some students may tend to assume more frequently one particular role or another. A clear limitation of the current literature on participant roles is that while the individual variables related to roles of bullies and victims have been widely studied (see paragraphs 2.1.1 and 2.1.2), defenders and, even more apparently, passive bystanders have been seldom considered. In particular, there is a lack of empirical studies comparing the personal correlates of defenders and passive bystanders.

2.3.1 Why study defending and passive bystanding behavior?

Some studies analyzing the group features of bullying have focused on how witnessing bullying affects children who are not directly involved in bullying incidents. Nishina and Juvonen (2005, Study 1) found that just having witnessed bullying was related to increased levels of daily anxiety for children who were not targeted. So bullying not only has negative consequences for bullies and victims, but also for bystanders' psychosocial well-being. However, non-aggressive onlookers are not only influenced by witnessing bullying, but can themselves influence the bullying process. For instance, whereas some children reinforce bullies' behavior by laughing or cheering, other children can support the bullying behavior by silently witnessing it (Salmivalli et al., 1996). Passive bystanders, in fact, are often perceived by victims, and by other observers as well, as acting in collusion with bullies, even though when they are not directly involved in the bullying action (Cowie, 2000; Gini, Pozzoli, et al., 2008).

40

Even though most children show attitudes against bullying and report intentions to help victims in hypothetical situations (Boulton, Trueman, & Flemington, 2002; Menesini et al., 1997; Rigby & Johnson, 2006; Rigby & Slee, 1991; Whitney & Smith, 1993), actual defending behavior is less common. The students' attitudes towards victims might be influenced by the presence and reactions of the audience, as happened in the study of Gini and colleagues (Gini, Pozzoli, et al., 2008). These researchers experimentally manipulated the bystanders' reactions in hypothetical bullying scenarios and found that when students imagined witnessing a bullying incident where other bystanders intervened to help the victim, they reported more victim liking than in conditions where bystanders assisted the bully or did not intervene.

Another important reason to study active defending and passive bystanding behavior is that children who are neither bullies nor victims can be considered both part of the problem and part of the solution. In addition to the theoretical question concerning what differentiates defenders from passive bystanders, as well as under which contextual (i.e., classroom) conditions these behaviors are more likely to occur, such information may have important implications for the development of more effective anti-bullying intervention programs. Whereas most individually oriented approaches have shown limited effectiveness (Baldry & Farrington, 2004), prevention projects oriented at changing the classroom environment, by placing a strong emphasis on increasing the awareness and skills of all students and changing class norms, have been more promising (Orpinas & Horne, 2006). These kinds of programs attempt to raise students' and teachers' awareness of different forms of bullying, challenge widespread beliefs that maintain victimization (e.g., the idea that the victim somehow deserves to be bullied), and develop a culture of support so that, if the teacher is not available to assist bullied children, other classmates will move from the bystander role into a defender role. Research has indeed shown that by training observers to take action against bullying in effective ways may help passive bystanders to 'become' active defenders. Several studies have in fact shown that bystanders trained in the role of peer helpers can act as a resource for victimized peers (Cowie & Sharp, 1996). In particular, those programs usually focus on cooperative activities and mediation skills. Intervention programs based on peer support, such as befriending, mentoring and peer mediation, proved to be efficacious in reducing bullying and fostering prosocial behavior towards

victims (Cowie, Hutson, Oztug & Myers, 2008; Cowie, Naylor, Talamelli, Chauhan, & Smith, 2002; Menesini et al., 2003b).

Despite what is already known about the efficacy of the above-mentioned anti-bullying strategies, relatively little is known about some of the psychological processes involved in these interventions and the personal characteristics that may facilitate or, conversely, inhibit prosocial interventions in favor of the victims. A better understanding of these characteristics may contribute to develop and implement more efficacious interventions. Furthermore, some authors (e.g., Cowie, 2000) have claimed that the likelihood that peer support programs will be positively implemented is partly explained by contextual factors. However, which contextual factors are more relevant and how they interact with personal characteristics is far from clear.

2.3.2 State of the art: past research on defending and passive bystanding behavior

Past studies suggest that both defenders and passive bystanders are low in aggression and are able to avoid harassment for themselves (Camodeca & Goossens, 2005). However, we still have too little information about "what makes some children to stick up for the victim or remain uninvolved, and also how their skills could be used in prosocial ways to combat bullying" (Andreou & Metallidou, 2004, p.38).

As far as social cognitive abilities are concerned, some authors have found that defending behavior is associated with a good theory of mind (Gini, 2006a; Caravita, Di Blasio, Salmivalli, 2010), in terms of the ability to understand others' thoughts, intentions, and beliefs. These authors argued that the adoption of this kind of prosocial and helpful behavior requires high levels of social cognitive ability and a well-developed understanding of both cognitive and emotional states of others. However, this is not a sufficient condition since, in the study by Gini (2006a), bullying behavior was also positively correlated with performance in the theory of mind task. Moreover, in the same sample of children, the outsider group did not differ significantly from the defenders in the second-order theory-of-mind task. In short, these results confirm that having a good theory of mind, per se, does not necessarily mean that this ability will be used to act prosocially (Arsenio & Lemerise, 2001; Kaukianinen et al., 1999). Finally, in another recent study (Camodeca and Goossens, 2005) defenders and outsiders were

similar to each other in every step of social information processing and in emotional regulation.

According to social-cognitive theory (Bandura, 1986), individuals' behaviors are related to their cognitions, such as self-efficacy beliefs and outcome expectations. Self-efficacy beliefs are "beliefs in one's capability to organize and execute the courses of action required to manage prospective situations" (Bandura, 1997, p. 2). To this respect, Andreou and Metallidou (2004) did not find any difference between defenders and outsiders in neither social nor academic cognition, so that none of the two significantly contributed to explaining variance associated with either defender or outsider behavior in bullying situations. In a sample of Italian middle-school students, Gini and colleagues (Gini, Albiero, et al., 2008) found that while defending the victim was associated with both high empathic responsiveness and high levels of social self-efficacy, passive bystanding was significantly associated with high empathy but low social self-efficacy. This result suggests that, even though empathic responsiveness is an important correlate of defenders' prosocial behavior, it cannot be considered, per se, to be a sufficient condition. In fact, although there is substantial evidence that empathy and behaving prosocially are positively associated (for a meta-analytic review, see Eisenberg & Fabes, 1998), and although empathy was related to defending the victims in bullying situations (Caravita et al., 2009; Gini, et al., 2007; Pöyhönen, Juvonen, & Salmivalli, in press; Warden & MacKinnon, 2003), this variable does not seem to clearly distinguish between defenders and passive bystanders. So, other variables (e.g., self-efficacy beliefs in the domain of interpersonal relationships) may be important in favoring or limiting children's helping behavior towards victimized peers (Pöyhönen et al., in press; Pöyhönen & Salmivalli, 2008).

Another aspect pertaining to possible differences between defenders and passive bystanders could be moral reasoning. Some authors do argue that high moral sensibility of defenders is able to explain their prosocial behavior (Hoffman, 2001; Menesini et al., 2003a). However, although moral reasoning is very important in enhancing prosocial behavior towards victimized peers, outsiders usually show levels of moral ability and moral disengagement that are similar to those of defenders (Gini, 2006a) and, furthermore, they do not show specific deficits in moral reasoning (e.g., Menesini et al., 2003a). Another study (Menesini & Camodeca, 2008) reported not-involved students -

who can be considered as being similar to the passive bystanders - feeling less guilty or ashamed compared to defenders in hypothetical bullying scenarios. The authors commented on this result by hypothesizing that the outsiders may not "experience what Hoffman (2000) called 'the moral conflict of innocent bystander', according to which the one who witnesses someone in pain, danger or distress would experience the moral conflict of whether to help or not" (Menesini & Camodeca, 2008, p.191). We may assume that this indifference leads them not to feel responsible for intervening and to remain outside.

Onlookers may fail to take responsible or supportive actions towards victims for several reasons. For example, the "bystander effect" (Darley & Latanè, 1968) can reduce the likelihood of intervening, since helping is less likely when many individuals are witnessing a potentially dangerous or harmful situation (Salmivalli, 2009). This might be due to the diffusion of responsibility or because students might infer that if other classmates don't do anything, bullying can't be so wrong. This might reflect strategic understanding of what is adaptive in the group (Juvonen & Cadigan, 2002). Moreover, students can choose not to intervene because of fear of becoming the target of the bullies, or not possessing effective strategies to counteract bullying (Atlas & Pepler, 1998; Hazler, 1996; Lodge & Frydenberg, 2005). Juvonen & Galván (2008) suggested that at least two motives might prevent children from helping the victim. First, children want to improve or preserve their own social status and for this reason they try distancing themselves from the low-status victim. The second motive is self-protection. By siding with the bully, or at least appearing to accept his or her behavior by keeping silence, the child lowers his or her own risk of becoming the next victim (Juvonen & Galván, 2008). It is understandable that siding with the bully can be adaptive, at least temporarily, for other group members. In the long run, however, such behavior is likely to maintain bullying and harm everyone's well-being.

Finally, consistent with a child by environment approach, defending and passive bystanding can be associated with different social positions within the group. Defenders are both well-liked (Pozzoli & Gini, 2008, 2009; Salmivalli et al., 1996) and perceived as popular by their peers (Caravita et al., 2009; Pöyhönen et al., in press), whereas passive bystanders' status is quite controversial (Pozzoli & Gini, 2008, 2009; Salmivalli et al., 1996). Some authors suggested that a high status is needed in order to defend the

44

victims (Pöyhönen et al., in press). Perhaps children who are well-liked by others are more confident about their secure position in the group and are more willing to adopt defending behaviors due to the reduced risk of becoming victims themselves.

2.3.3 What we can learn from different research areas about defending and passive bystanding behavior: The model of Latané and Darley

We have highlighted that literature about which characteristics are crucial in determining defending and passive bystanding behavior is rather limited. Studies from the broader literature on prosocial behavior could be useful as a starting point in order to identify potential correlates of defending behavior and to hypothesize which of these characteristics may be missing in passive bystanders. However, defending behavior during bullying episodes cannot be reduced to a simple prosocial behavior because actually it represents a risky behavior, since the helper confronts a powerful bully and, sometimes, even his/her supporters. For this reason, we conclude this literature review by analyzing studies that, despite belonging to other research areas, investigated defending and passive bystanding behavior during potentially risky situations. The literature offers a great number of theoretical explanations, from the negative state relief model (Cialdini et al., 1991) to the empathic joy hypothesis (Smith, Keating, Scotland, 1989), from cost-benefit analysis (Homans, 1961) to reciprocity norm theorization (Cialdini, 2001). In our opinion and for our research purposes, one of the best models is represented by Latanè and Darley's five-stage model (1970). The research was prompted by a news item. In 1964, 'Kitty' Genovese was returning home at 3 a.m. As she neared home Winston Moseley jumped out of the shadows and attacked her. She screamed as loudly as she could and tried to defend herself. Her attacker was frightened away twice by lights coming on in windows, but he returned each time and his third attack, as Miss Genovese tried to crawl into an apartment block, was fatal. Police later discovered that although 38 people heard her screams and many looked out of their windows and saw the attack, no one went to her rescue and no one picked up a telephone to call the police until after she was dead.

After this episode, Latanè and Darley tried to answer the question: "Why do people who are so willing to help in non-emergency situations, not do so in emergency situations?". In several experiments in which emergencies of different kinds took place,

(e.g., Darley & Latané, 1968; Latané & Rodin, 1969; Latané & Darley, 1970), the variables hypothesized to influence the decisions that bystanders make were manipulated. These variables include, among others, the way in which the interpretation of the situation is influenced by bystanders' readiness to perceive an emergency (Latane & Darley, 1970), the effect of the number of bystanders on individual sense of responsibility (Bickman, 1972; Darley & Latane, 1968; Harari, Harari, & White, 1985), and the effects of personal characteristics (Latane & Darley, 1970; Schreiber, 1979)on helping behavior. This series of studies led the authors to the formulation of the model reported in Figure 2.1. In short, in front of an emergency, an intervener must make a series of decisions. First, he must notice the event and then interpret it as an emergency. Then she/he must decide if she/he has a responsibility to act, and if so what form of assistance she/he should use. Then she/he must decide how to act and implement her/his choice. Of course, in a real emergency a person is not as rational as this and his or her behavior can be influenced by other variables (e.g., emotional reactions, other bystanders' behavior, norms, and so on).

Figure 2.1. Latané and Darley's model of helping
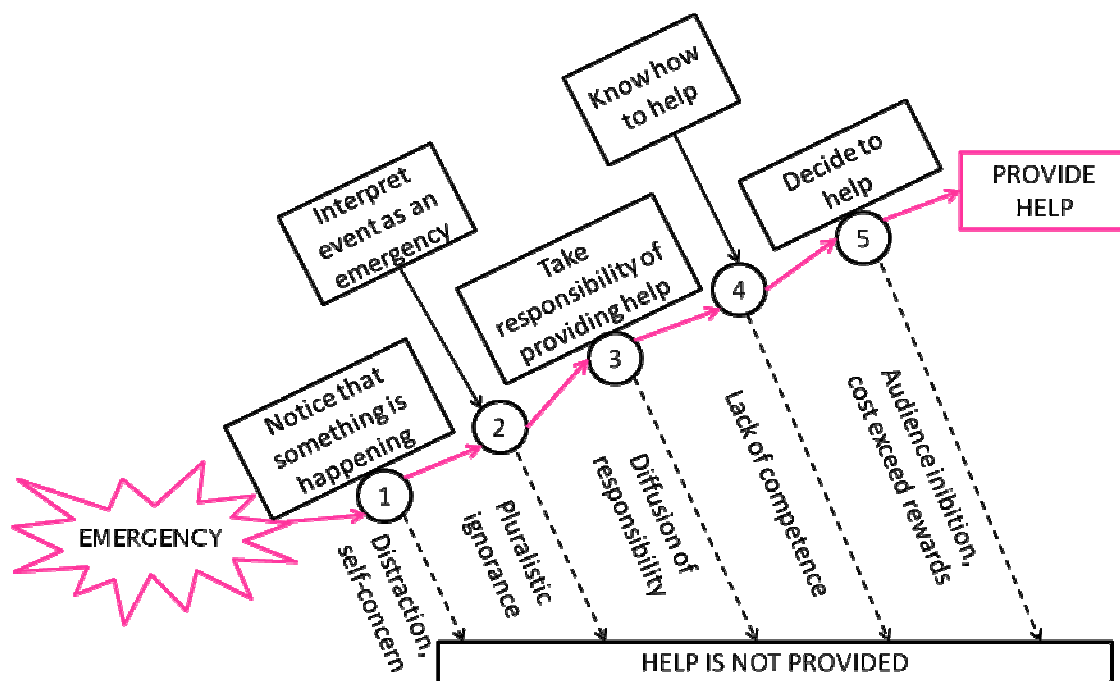
Note: figure adapted from Aronson, 2006

46

The model of Latanè and Darley have been tested (totally or partially) by several researchers in different areas. For example, Hoefnagels and Zwikker (2001) recently applied this model to domestic violence, examining which personal and situational characteristics are associated with noticing and interpretation of child abuse (the first and the second step of the model). Moreover, the exploratory study conducted by Burn (2009) on sexual assault prevention supported the idea that the failure in one or more of the five steps postulated by the situational model of bystander intervention may influence the likelihood of intervention. By focusing specifically on diffusion of responsibility, Markey (2000) investigated groups in on-line chat-rooms and demonstrated that the theoretical framework proposed in Latane and Darley's theory of bystander intervention can also be useful to explain and predict intervention in computer-mediated communication.

Although the type of emergencies considered by traditional studies is somehow different from bullying behavior (e.g., bullying behavior is not unexpected), there are also several similarities (e.g., they are potentially risky situations for people who decide to intervene) that would make it plausible to hypothesize a similar underlying pattern of variables explaining helping and passive bystanding behavior.

Chapter 3

METHOD

Based on the theoretical background previously presented, two studies were conducted and are described in Chapter 4 and Chapter 5. The first study investigated the role of several individual variables (attitudes towards bullying, personal responsibility and coping strategies) and of perceived normative pressure for intervention from significant others, on defending and passive bystanding behavior. Whereas the second study analyzed the influence of contextual variables, namely class injunctive and descriptive norms, on individual defending and passive bystanding behavior.

The two studies involved the same large group of participants, whose characteristics are described in the next paragraph. In subsequent paragraphs the preliminary screening of the data and the measures used in the two studies are presented.

3.1 Participants and procedure

Participants were recruited from 18 primary and 12 middle schools located in three midsize cities in the north of Italy. All 4th, 5th, 7th and 8th grade students (*N*=2012) attending those schools were eligible to take part in this research project. To the best of our knowledge, none of the schools had implemented and anti-bullying program during the school year in which data were collected.

First, school principals and teachers were asked for consent. Then, parental consent letters were distributed to all the families in order to obtain their consent for their children's participation. In this letter, the goals of the studies were explained and privacy for schools, children and their parents was guaranteed. Children who did not receive parental consent (parents' agreement reached 93%; range: 53%-100%) were excluded from the study (N = 179). Before data collection, students also gave their

personal assent for participation and were assured confidentiality. None of the authorized students refused to participate. Students completed a series of questionnaires presented in randomized order during a full class period. In primary school, instructions and items were read aloud, while middle school students read and completed individual questions themselves. All participants were provided with help if they needed additional clarifications on any questions. During this session participants were said that they could stop answering if they were tired, and at the end they were debriefed about the purpose of the research and any further questions were answered.

Subsequently, beyond the 179 students excluded because of the lack of parental consent, 8 students were excluded from the data analysis because of certified reading comprehension difficulties or attention problems. Therefore, the final sample consisted of 1825 students (955 boys and 870 girls) from 101 classes (23 4th grade, 25 5th grade, 26 7th grade and 28 8th grade). Gender and age descriptive statistics are reported in Table 3.1. In terms of racial/ethnic background, 90.8% of the participants were Italian, 3.5% came from Eastern Europe, 1.8% from Southern Europe, 1.6% from Northern Africa, 0.7% from Southern America and the remaining 1.6% came from other geographical regions (Caribbean, Eastern, Western and Southern Africa, Asia, Northern and Western Europe). Socio-economic status was not directly measured. However, as in all public schools in Italy, our sample included students from a wide range of social classes (low- and working class through upper middle class).

Table 3.1. Gender and age descriptive statistics of the participants.

Grade	Gender			Age	
	Boys	Girls	N	M	SD
4th	198	176	374	9 years, 6 months	5.8 months
5th	214	209	423	10 years, 7 months	6.1 months
Tot. primary school	412	385	797	10 years, 1 month	9.2 months
7th	274	219	493	12 years, 8 months	8.1 months
8th	269	266	535	13 years, 9 months	7.9 months
Tot. middle school	543	485	1028	13 years, 3 months	11 months

3.2 Data screening

All of the returned surveys were entered into the database. Data entry was completed by a research assistant or by a trained student under the supervision of the research assistant. To ensure accuracy, data were randomly checked after data entry. The inaccuracies, which were minor, were identified and corrected.

3.2.1 Missing data

First, we verified that missing data that occurred in the dataset were random in nature, namely that there was not a systematic pattern of non-response (Meyers, Gamst & Guarino, 2006). This first step is very important because, as suggested by Tabachnick and Fidell (1996), the amount of missing data is often less crucial than the pattern of missing data, because it could create problems with respect to the generalizability of the results. Observations of our data revealed that no specific pattern existed, neither related to participants' characteristics (e.g., age) nor to the specific variable.

Second, as suggested by Kline (2009, p. 241), we verified that missing values were less than 5% for each single item. In our dataset, percentage of missing data were really low and ranged from 0.1% to 1.6% for each item.

Third, from a single case point of view, we considered the questionnaire to be reliable if the participants answered at least 80% of the questions. As far as we know, there are no firm guidelines for determining how much missing data is too much and this criterion seemed strict enough. Following this criterion, 13 participants were eliminated from subsequent analyses.

Finally, we analyzed missing data before computing variables used in Study 1 and 2. Each variable was computed as the mean of the items constituting the scale. The number of items ranged from 3 to 7. We considered the computed mean reliable and representative of the referred variable when less than 20% of missing data occurred (when scales were composed by 3 items we adopted a criterion of two out of three valid items). In each study only participants that did respect this criterion in all the used scales were included. In particular, in Study 1 twelve scales were used. Fifty-eight participants did not meet the criteria in one or more of these scales and were removed

from the analyses. In Study 2, nine participants had more than 20% missing data in one or more of the six scales used and were not included in the analyses performed.

3.2.2 Outliers

After score computation (described in the next paragraph), we checked for outliers. Outliers are defined as extreme scores in a distribution, even if there is no universal definition of "extreme" (Kline, 2009, p.235). Usually, inspecting frequency distributions of z scores, $| z | > 3.00$ indicates an outlier. However, as suggested by Mertler and Vannatta (2005), with large sample sizes (e.g., N > 1000) it is likely that a few participants could have z-scores greater than ± 3. In this situation, the researcher might consider values greater than ± 4 as being outliers (Stevens, 1992) or, consistent with Cohen and colleagues (Cohen, Cohen, West & Aiken, 2003), decide that "if outliers are few (less than 1% or 2% of N) and not very extreme, they are probably best left alone" (p.128). Analyzing our variables, only in two scales did some outliers emerge: bullying behavior (10 participants) and attitudes toward bullying (4 participants). The amount of outliers was so small (less than 1%) that its influence on results was likely to be modest. Moreover, the presence of these outliers was not related to any type of mistake (e.g., participants from a different population, errors caused by data entry). For this reason we decided not to eliminate them from the sample.

3.3 Measures

Measures used in Study 1 and 2, which are presented in chapters A and B respectively, are described below. Next to each variable name, the study in which the measure was used is reported in brackets. For each investigated variable we present:

a) The description of the measure used to assess the construct.

b) Psychometric properties of the measure. In particular, in order to investigate the homogeneity of the items of each scale, item-total correlations were computed. For each item, a correlation greater than .30 (Cohen, 1988) was considered acceptable. Moreover, Cronbach's alpha was calculated and used as a preliminary indicator of the reliability of the measure (then evaluated with composite reliability index, as suggested by Fornell and Larcker, 1981). Cronbach's alpha was also used to compare the current

measure with the original scale [when possible] and to investigate the improvement of reliability after removing one or more problematic items [when necessary].

c) Confirmatory factor analysis and composite reliability.

In order to test the construct validity of the measures, confirmatory factor analyses (CFA) were performed with LISREL 8.7 program (Jöreskog & Sörbom, 1993) (Jöreskog & Sörbom, 1993)using the *Weighted Least Squares* (WLS) method. Various fit indices were used to assess the fit of the models: the Satorra-Bentler scaled chi-square (χ^2), an index dependent on sample size that measures the extent to which the overall model predicts the observed covariance; the comparative fit index (CFI), which measures the adequacy of the model if compared to the null model. This index is independent of sample size (Kim, 2005), solving some interpretation problems related to χ^2 index, and performs well both on large and small samples. Moreover, the goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI), which are thought of as proportions comparing the value of the fitting criterion for the model with the value of the fitting criterion when no model fits the data, were considered. Finally, the root mean square error of approximation (RMSEA) and the standardized root mean square residual (SRMR) were also used. The first index is an absolute fit index measuring approximation of parameter estimates to true parameters in the population, while the latter index represents the average discrepancy between the observed and the expected correlation across all parameter estimates.

To evaluate the fit of the model, the following criteria are commonly considered. If the model is correct, the χ^2 test statistic should be non-significant. However, when the sample size is very large, chi-squared may be significant even if the difference between the observed and the predicted covariance structure is negligible. In order to address this limitation of the χ^2 test, the other presented indices are used. CFI values between 0.90 and 0.97 are related to an acceptable fit (Hu & Bentler, 1995) and values greater than 0.97 indicate a good fit (Schermelleh-Engel, Moosbrugger, & Müller, 2003). As far as GFI value is concerned, it is considered acceptable when it is comprised between 0.90 and 0.95, while it is good when greater than .95 (Schermelleh-Engel et al., 2003). AGFI values ranging from 0.85 to 0.90 reflect an acceptable fit of the model, that is considered good when AGFI values are greater than 0.90. Finally, with respect to RMSEA and SRMR, a good fit is represented by values under 0.05 and an acceptable fit corresponds to

values between 0.05 and 0.08 for RMSEA and between 0.05 and 0.10 for SRMR (Browne & Cudeck, 1993; Schermelleh-Engel et al., 2003).

After performing CFA on the full sample, we tested the model on primary and middle school samples through a multigroup analysis. This analysis was needed because age groups were considered and compared both in Study 1 and in Study 2 and it was important to verify that the measuring instrument was equivalent across the two age groups. Indeed, as suggested by Vandenberg and Lance (2000), if the measurement is not equivalent, between-group comparisons become highly problematic. Testing for equivalence entails a hierarchical set of steps which are logically ordered and increasingly restrictive. For our purposes, in order to compare effects between groups, configural and metric invariance were tested (Steenkamp & Baumgartner, 1998). Briefly, configural invariance is satisfied when the basic model structure (i.e. the pattern of fixed and non-fixed parameters) is invariant across groups. This initial baseline model has no between-group invariance constraints on estimated parameters. As it provides the basis for comparison with all subsequent models in the invariance hierarchy, the configural invariance model is of critical importance. Therefore, if the data does not support identical patterns of fixed and non-fixed parameters across the groups (configural invariance), then neither will the data support more restrictive models (Bollen, 1989). The configural model is evaluated on the basis of some of the goodness-of-fit indices described above (Hu & Bentler, 1999).

Metric invariance, on the other hand, allows researchers to compare the strength of relationships between constructs from one group to another. The test of full metric invariance is conducted by constraining the loadings to be equal across groups. The results are explained by the change in the χ^2 value ($\Delta\chi^2$) as the index of difference in fit. However, the use of $\Delta\chi^2$ has been criticized because of its sensitivity to sample size (Brannick, 1995; Cheung & Rensvold, 2002; Kelloway, 1995). Recently, Cheung and Rensvold (2002) provided evidence that ΔCFI was not prone to these problems and determined that a ΔCFI value higher than .01 was indicative of a significant drop in fit. Several authors (e.g., Byrne et al., 1989; Steenkamp & Baumgartner,1998) have argued that full metric invariance is not necessary, and that for substantive analyses to be meaningful at least two items for each latent variable must be metrically invariant (i.e., partial metric invariance).

To sum up, for each measure we performed a CFA on the full sample and a multigroup CFA testing for configural and at least partial metric invariance.

As a last step, in order to evaluate the internal consistency of the measures, the composite reliability (CR) index was used (Fornell & Larker, 1981). CR was calculated in the following way:

$$2(\Sigma \text{ standardized loading}) / [2(\Sigma \text{ standardized loading}) + (\Sigma \text{ indicator measurement error})]$$

As suggested by Tseng and colleagues (Tseng, Dörnyei, & Schmitt, 2006), CR should be greater than 0.6.

3.3.1 Behaviors during bullying episodes (Study 1 and 2).

Behaviors during bullying episodes were investigated with a self-report measure. For our research purposes, bullying, defending behavior, passive bystanding behavior and victimization were considered. For the construction of this measure, we started from the Italian version (Menesini & Gini, 2000) of the Participant Roles Questionnaire (PRQ; Salmivalli et al., 1996; Sutton & Smith, 1999). The PRQ is a peer rating questionnaire in which each participant assesses the classmates who most frequently exhibit a particular behavior during bullying situations, after reading a comprehensive definition of bullying. The original measure (Salmivalli et al., 1996) was composed of a total of 50 items and was successively reduced and adapted to the English context by Sutton and Smith (1999). From this last version the Italian peer nominations questionnaire (Menesini & Gini, 2000) was derived. The Italian PRQ is composed of 21 items and allows the computation of five subscales describing tendencies to act as bully, reinforcer of the bully, assistant of the bully, defender of the victim, and passive bystander (outsider). Victimization is evaluated by a single item.

For the purposes of the present studies, the Italian PRQ was not simply adapted as a self report measure because, in our opinion, it presented two potential problematic aspects. First, the four subscales of interest were composed of a different number of items, specifically: five items for defending behavior, four items for bullying and passive bystanding behavior and a single item for victimization. Second, not all forms of bullying were mentioned. In particular, as already suggested by the authors, no item referred to

relational forms of bullying. Moreover, the generic term "bullying" was often used in the items (e.g., "Tries to make others stop the bullying" in defending behavior scale). This could be a problem because evidence suggests that respondents have pre-conceived beliefs regarding the definition of bullying, that often are not very accurate. For example, Thompson and Arora (1991) found that if they asked 15-year-old boys how much bullying occurred in their schools, the majority of them indicated that there was none. In contrast, when the participants were asked whether there was any *verbal* bullying at their schools, all of the students asked affirmatively and were able to give examples. This result is particularly important because, immediately prior to their interviews, an exhaustive definition of bullying was presented. This finding suggested the need to give details about a specific type of bullying in each question instead of using the generic word "bullying", because of the pervasiveness of participants' ex ante definition.

For these reasons, we devised the items of our questionnaire using the descriptions of different behaviors (defending, passive bystanding, bullying) used by Menesini and Gini's PRQ and specifying the type of bullying situation. To sum up, our final measure was balanced both for the number of items and for the type of bullying. Each of the four behaviors was, in fact, measured by three items, with one item for each type of bullying (physical, verbal, relational). Items are reported in Table 3.2. Participants were asked to rate how often (during the current school-year) they had enacted the behavior described in each item on a 4-point scale from 1 (never) to 4 (almost always).

Table 3.2. Items investigating behaviors during bullying episodes

Type of behavior	Type of bullying	Item
Bullying	physical verbal relational	I hit or push some of my classmates I offend or give nasty nicknames to some of my classmates I exclude some classmates from the group or I spread rumors about them when they can't hear me
Victimization	physical verbal relational	I am attacked hard, hit or pushed by some classmates. Some classmates give me nasty nicknames or offend me I know that someone spreads nasty rumors about me when I can't hear
Defending	physical verbal relational	I defend the classmates who are hit or attacked hard If someone teases or threatens a classmate, I try to stop him/her I try to help or comfort classmates who are isolated or excluded from the group
Passive bystanding	physical verbal relational	When a classmate is hit or pushed, I stand by and I mind my own business If a classmate is teased or threatened I do nothing and I don't meddle If I know that someone is excluded or isolated from the group I act as if nothing had happened

Psychometric properties

Item-total correlations revealed a good item homogeneity in the four scales. Correlation indices ranged from .37 to .50 for bullying, from .43 to .52 for victimization, from .45 to .56 for defending and from .43 to .55 for passive bystanding. Moreover, reliability coefficients were acceptable, ranging from .61 to .68 (see Table 3.3).

Table 3.3. Reliability and homogeneity of the items investigating behaviors during
bullying episodes

Scale	Cronbach's α	Average item-total correlation (range)
Bullying	.61	.42 (.37 - .50)
Victimization	.65	.46 (.43 - .52)
Defending	.68	.50 (.45 - .56)
Passive bystanding	.66	.48 (.43 - .55)

Confirmatory factor analyses

Behaviors during bullying episodes were investigated in both studies presented in Chapters 4 and 5. However, while in first study only defending and passive bystanding behavior were considered, in the second study all four scales were used. For this reason we ran confirmatory analyses to test the adequacy both of the two-factor and of the four-factor structures of this measure.

Two-factor structure

Results revealed that the model where only the paths between items and latent variables were considered did not fit the data well (χ^2 (9) = 390.67, *p* < .001; *CFI* = .88; *GFI* = .92; *AGFI* = .81; *RMSEA* = .16; *SRMR* = .18). Modification indices suggested adding a correlation between the two latent variables. The new model (see Figure 3.1), in which this path was specified, showed a good fit (χ^2 (8) = 85.27, *p* < .001; *CFI* = .98; *GFI* = .98; *AGFI* = .95; *RMSEA* = .07; *SRMR* = .04). Standardized loadings of the items on the defending factor ranged from .60 to .73 (mean loading = .65) and loadings on the passive bystanding factor ranged from .53 to .79 (mean loading = .64). According to Anderson and Gerbin (1988), item convergent validity was demonstrated because all the standardized loadings were significant at the *p* <.001 level. The multigroup analysis confirmed the configural (χ^2 (16) = 82.00, *p* < .001; *CFI* = .97; *RMSEA* = .07; *SRMR* = .03) and partially metric invariance ($\Delta\chi_2$(9) = 15.28, *ns;* ΔCFI = .00) across the two age groups.

As suggested by Fornell and Larcker (1981), internal consistency of the scales was measured through composite reliability (CR). For each participant defending (CR = .70) and passive bystanding (CR = .69) scores were computed as the mean of the score of the three items of each subscale (range: 1-4).

Figure 3.1. Two-factor structure of the measure of behaviors during bullying episodes
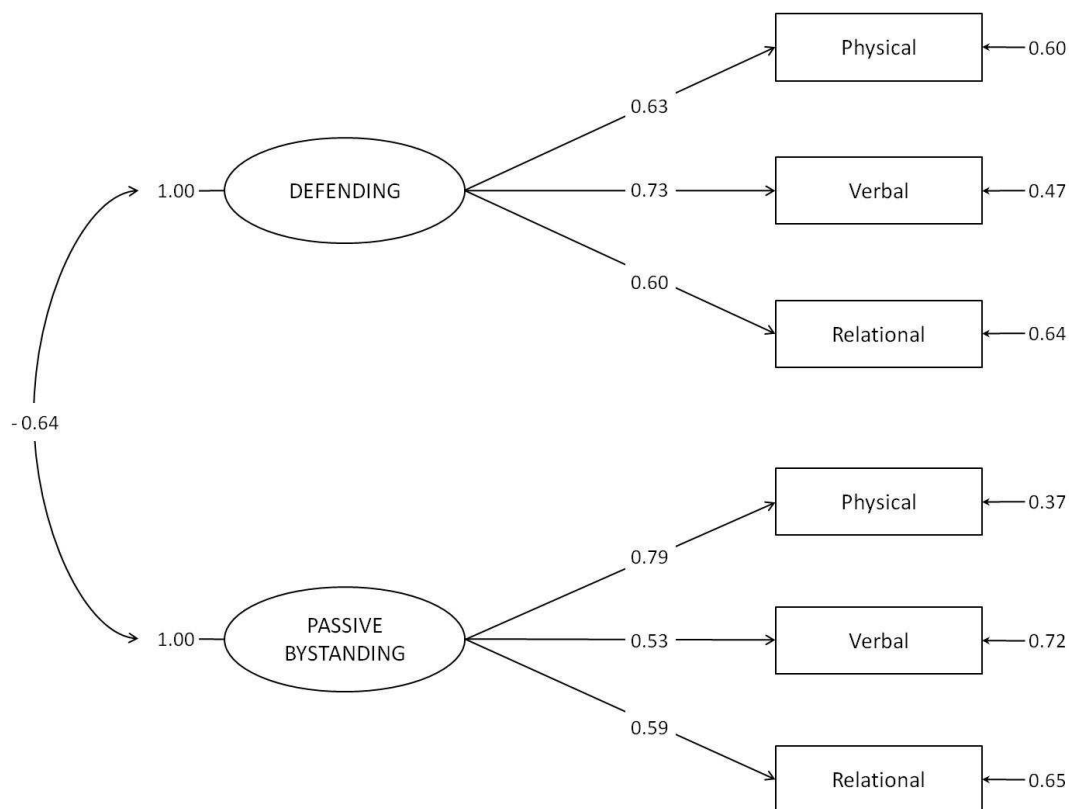
Four-factor structure

As above mentioned, in Study 2 all four scales were used. As a first step we tested the model without correlation between the four latent variables. Fit indices were not acceptable (χ^2 (54) = 912.49, p < .001; *CFI* = .85; *GFI* = .91; *AGFI* = .87; *RMSEA* = .10; *SRMR* = .13). Modification indices suggested specifying three correlations between bullying and victimization, bullying and passive bystanding and, as in two-factor model, between defending and passive bystanding. This model, presented in Figure 3.2, had good fit indices (χ^2 (51) = 440.27, p < .001; *CFI* = .93; *GFI* = .95; *AGFI* = .93; *RMSEA* = .07; *SRMR* = .06).

Standardized loadings ranged from .51 to .72 (mean loading = .59) for bullying (CR = .65), from .56 to .75 (mean loading = .62) for victimization (CR = .67), from .60 to .72 (mean loading = .65) for defending (CR = .70) and from .52 to .73 (mean loading = .63) for passive bystanding (CR = .68). All the standardized loadings were significant at the $p < .001$ level. Both configural (χ^2 (102) = 496.19, $p < .001$; *CFI* = .93; *RMSEA* = .07; *SRMR* = .06) and partially metric invariance ($\Delta\chi_2(19)$ = 27.78, *ns*; ΔCFI = .00) were confirmed by multigroup analysis across the two age groups. Given the results of the CFA, for each participant, bullying, victimization, defending and passive bystanding scores were computed by averaging their answers in the three items of each subscale of the questionnaire.

Figure 3.2. Four-factor structure of the measure of behaviors during bullying episodes
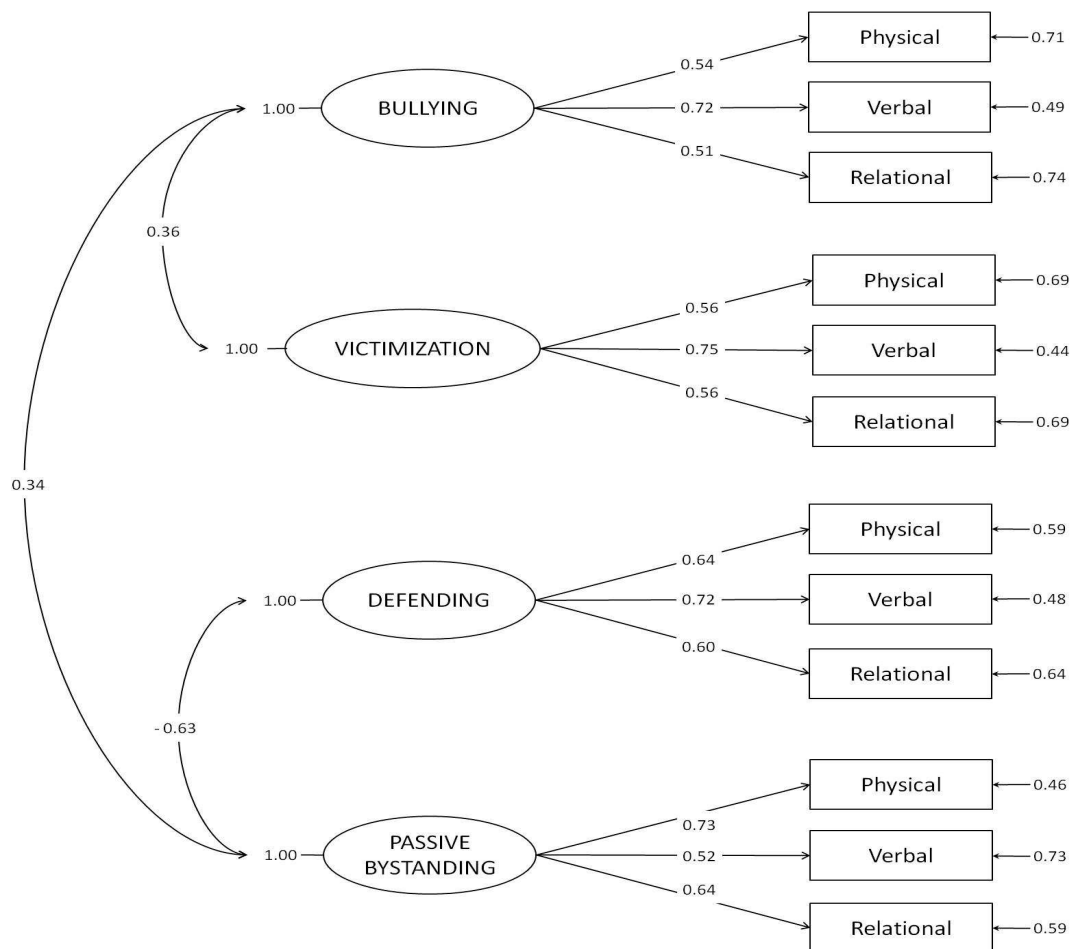
3.3.2 Attitudes towards bullying (Study 1).

Students' attitudes towards bullying were measured through an adapted version of Salmivalli and Voeten's (2004) scale. A forward-translation and back-translation procedure was adopted. The measure was composed of 10 statements about bullying: One should try to help the bullied victims; Bullying may be fun sometimes (*reverse code*); It is the victims' own fault that they are bullied (*reverse code*); Bullying is stupid; Joining in bullying is a wrong thing to do; It is not that bad if you laugh with others when someone is being bullied (*reverse code*); One should report bullying to the teacher; Making friends with the bullied victim is the right thing to do; It is funny, when someone ridicules a classmate over and over again (*reverse code*); Bullying makes the victim feel bad. Participants were asked to evaluate the extent to which they agreed with each item on a 4-point scale (1 = strongly disagree, 4 = strongly agree).

Psychometric properties

Analysis revealed good item-total correlations for all items, except for item 8 ("Making friends with the bullied victim is the right thing to do"), where a correlation of .27 emerged. Item 8 was removed and we ran analysis again considering the remaining nine items. In this case, item-total correlations were greater than .30 for all items, ranging from .31 to .52 (average item-total correlation = .44). Moreover, Cronbach's α improved from .74 (for ten-item scale) to .76 (for nine-item scale). Reliability coefficient was similar to that reported by Salmivalli and Voeten (α = .75). The nine-item scale was used for subsequent analyses and in Study 1.

Confirmatory factor analysis

CFA was conducted to test the monofactorial structure of the nine-item scale. The model (see Figure 3.3) fitted the data well (χ^2 (27) = 167.14, *p* < .001; *CFI* = .99; *GFI* = .94; *AGFI* = .90; *RMSEA* = .05; *SRMR* = .04). Standardized loadings ranged from .41 to .75 (mean loading = .63) and were significant at the *p* <.001 level. The configural (χ^2 (54) = 223.35, *p* < .001; *CFI* = .97; *RMSEA* = .06; *SRMR* = .06) and partially metric invariance ($\Delta\chi^2$(11) = 11.17, *ns*; ΔCFI = .00) of the measure across the two age groups was also confirmed.

A pro-victim attitude score was computed by averaging the students' answers on the 9 items (CR = .68). The higher a student scored on the scale, the more his/her attitudes were against bullying and in favor of the victim.

Figure 3.3. Monofactorial structure of the measure of attitudes towards bullying
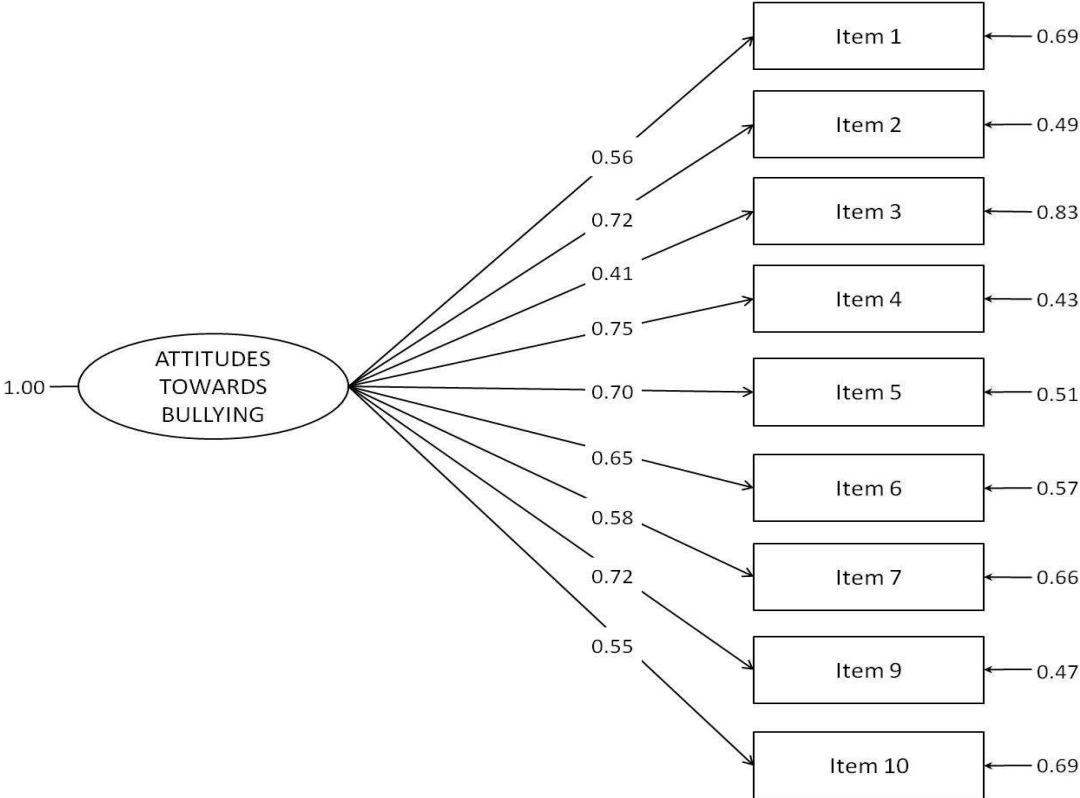
3.3.3 Personal responsibility (Study 1)

Participants' sense of responsibility to intervene in favor of the victim was measured through four items: "Helping classmates who are repeatedly teased, hit or left out is my responsibility", "In my classroom, if someone is surrounded by mindless gossip, pushed or threatened I don't have to do anything" (reverse code), "It is my responsibility to find a way so that in the classroom nobody is insulted, excluded or attacked", "It's not up to me to do something so that in my classroom nobody is repeatedly offended, pushed or left on one's own" (reverse code). Participants rated their agreement with each item on a 6-point scale from 1 (totally disagree) to 6 (totally

agree). This measure was used in a previous study by Pozzoli and Gini (under review) and showed good internal reliability.

Psychometric properties

Item-total correlations ranged from .41 to .46 (average item-total correlation = .43), demonstrating good homogeneity of the items. A Cronbach's α coefficient of .65 constituted an acceptable internal consistency of the measure.

Confirmatory factor analysis

We tested the monofactorial structure of the scale. Fit indices were quite good, but RMSEA was not acceptable (χ^2 (2) = 50.71, $p < .001$; *CFI* = .97; *GFI* = .97; *AGFI* = .86; *RMSEA* = .12; *SRMR* = .05). Modification indices suggested the addition of correlations between residuals of the two negatively formulated items (i.e. "...I don't have to do anything" and "It's not up to me doing something...."). This second model (see Figure 3.4) had a good fit (χ^2 (1) = 3.18, $p = .07$; *CFI* = 1.00; *GFI* = 1.00; *AGFI* = .98; *RMSEA* = .03; *SRMR* = .01). The multigroup analysis indicated configural invariance across the two age groups (χ^2 (2) = 2.32, *ns*; *CFI* = 1.00; *RMSEA* = .01; *SRMR* = .01) and partial metric invariance ($\Delta\chi_2$(5) = 4.58, *ns*; *ΔCFI* = .00). Answers to the four items were averaged to form a single personal responsibility score (CR = .64).

Figure 3.4. Monofactorial structure of the measure of personal responsibility
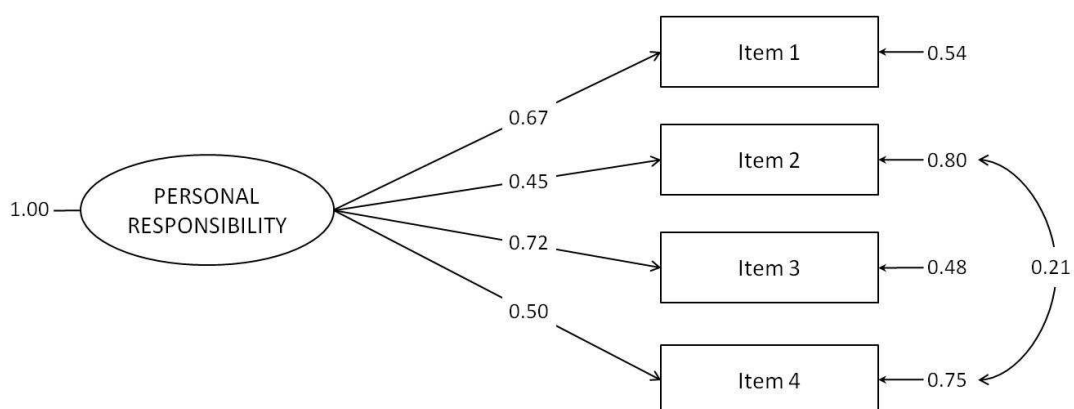
3.3.4 Coping strategies (Study 1).

A modified version of the Self-Report Coping Measure (SRCM; Causey & Dubow, 1992; Kristensen & Smith, 2003) was used to assess coping strategies in bullying episodes. The SRCM is a 34-item scale comprising five factor-analytically derived subscales: Seeking Social Support (SSS), Self-Reliance/Problem-Solving (SR/PS), Distancing (DIS), Internalizing (INT), and Externalizing (EXT). The measure aims to investigate coping strategies basing on Roth and Cohen's (1986) approach/avoidance conceptualization. These authors described approach coping strategies as behavioral, cognitive or emotional activities oriented towards a stressor, while avoidance coping strategies were identified as behavioral, cognitive or emotional activities oriented away from a stressor in order to avoid it. Based on this theoretical distinction, Causey and Dubow (1992) included Seeking Social Support and Self-Reliance/Problem-Solving in the "approach" strategies and Distancing, Internalizing and Externalizing in "avoidance" strategies. This categorization, however, was not totally confirmed by the authors, because the Internalizing scale was correlated both with approach and with avoidance strategies, an issue that will be better addressed describing confirmatory analysis.

In the original SRCM, children are asked how often they use each coping strategy in these two hypothetical situations: "When I get a bad grade in school, one worse than I normally get, I usually…" and "When I have an argument or a fight with a friend, I usually…". As previously explained in Chapter 2, we believe that defending behavior during bullying episodes is partially different from other prosocial behavior (such as consoling a peer who has received a bad mark or helping a friend who has fallen off the bike) because active intervention in bullying episodes represents a risky behavior, since the helper confronts a powerful bully and, sometimes, even his/her supporters. Defending a bullied (and weaker) peer requires competent strategies, which sometimes may be partly different from those used in every-day situations, and is more likely to produce negative outcomes (such as retaliation or peer rejection) for the helper or the helped child and. For this reason, we did not investigate coping strategies in response to common negative episodes (such as receiving a bad grade) that are not characterized by this aspect of 'risk'. This choice was consistent with a previous study by Kristensen and Smith (2003). Moreover, in our study we investigated behavior in response to an aggression perpetrated towards a classmate, therefore we needed to analyze coping

strategies in circumstances in which the negative situation is not directly suffered by the participant. This required us to coherently change the initial scenario of the questionnaire. For the purposes of our research, and following Kristensen and Smith (2003), we changed the hypothetical situation as follows: "When in my classroom someone repeatedly bullies another classmate (insulting, hitting, threatening, damaging objects, spreading rumors or excluding from the group) I usually…".

As a second step, for each subscale of the SRCM, we selected the items that were appropriate for this new hypothetical situation (seven items for SSS and SR/PS and six items for DIS and INT; see Table 3.4). Only in a few cases were minor changes to the original items needed (they are reported in Table 3.4 in italics; numbers between square brackets reflect the item presentation order in the questionnaire). A forward and back translation procedure was adopted. As in the original scale, the students answered the questions on a 5-point scale, ranging from 1 (never) to 5 (always).

Table 3.4. Item investigating coping strategies during bullying episodes
(comparison between original study and current study)

Scale	Item	
	Causey & Dubow, 1992	Current study
SSS	Tell a friend or family member what happened	Tell a friend or family member what happened [1]
	Ask a friend for advice	Ask a friend for advice [5]
	Get help from a friend	Get help from a friend [9]
	Talk to the teacher about it	Talk to the teacher about it [13]
	Ask a family member for advice	Ask a family member for advice [16]
	Ask someone who has had this problem what he or she would do	Ask someone who has had this problem what *I should do* [19]
	Get help from a family member	Get help from an *adult in the school* [23]
	Talk to somebody about how it made me feel	-

Table 3.4 (continue). Item investigating coping strategies during bullying episodes (comparison between original study and current study)

Scale	Item	
	Causey & Dubow, 1992	Current study
SR/PS	Do something to make up for it	Do something to make up for it [2]
	Try to understand why this happened to me	Try to understand why this happened [6]
	Know there are things I can do to make it better	Know there are things I can do to make it better [10]
	Try extra hard to keep this from happening again	Try extra hard to keep this from happening again [14]
	Decide on one way to deal with the problem and I do it	Decide on one way to deal with the problem and I do it [17]
	Go over in my mind what to do or say	Go over in my mind what to do or say [24]
	Try to think of different ways to solve it	Try to think of different ways to solve it [26]
	Change something so things will work out	-
DIS	Refuse to think about it	Refuse to think about it [3]
	Forget the whole thing	Forget the whole thing [8]
	Do something to take my mind off of it	Do something to take my mind off of it [11]
	Tell myself it doesn't matter	Tell myself it doesn't matter [20]
	Make believe nothing happened	Make believe nothing happened [22]
	Say I don't care	Say I don't care [25]
	Ignore it when people say something about it	-
INT	Worry that others will think badly of me	Worry that others will think badly of me *if I do something* [4]
	Worry too much about it [7]	Worry too much about it [7]
	Get mad at myself for doing something that I shouldn't have done	Get mad at myself *because I don't know what I can do* [12]
	Just feel sorry for myself	Just feel sorry *and sad* [15]
	Cry about it [18]	Cry about it [18]
	Become so upset that I can't talk to anyone	Become so upset that I *can say nothing* [21]
	Get off by myself	-
EXT	Take it out on others because I feel sad or angry	-
	Yell to let off stream	-
	Curse out loud	-
	Get mad and throw or hit something	-

Note: SSS = Seeking Social Support; SR/PS = Self Reliance/Problem Solving; DIS = Distancing; INT = Internalizing; EXT = Externalizing

Psychometric properties

Item-total correlations were computed. Analyses revealed good values for all items in Seeking Social Support (ranging from .34 to .60), Self-Reliance/Problem-Solving (ranging from .49 to .64) and Distancing (ranging from .44 to .56) scales. All the scales had satisfactory reliability coefficients, that were slightly lower than the original ones apart from Seeking Social Support (see Table 3.5). As far as Internalizing scale is concerned, a low item-total correlation (.25) emerged for item 4 ("Worry that others will think badly of me *if I do something*"). After removing this item, the other item-total correlations ranged from .43 to .51 and the Cronbach's α improved from .69 to .71. So, we decided to remove item 4 from the scale and to use the remaining five items for the subsequent analyses.

Table 3.5. Comparison between reliability of original and current measure of coping strategies and homogeneity of the items

Scale	Cronbach's α (Coping with a peer argument; Causey & Dubow, 1992)	Cronbach's α	Average item-total correlation (range)
SSS	.84	.76	.48 (.34 - .60)
SR/PS	.84	.83	.57 (.49 - .64)
DIS	.69	.75	.49 (.44 - .56)
INT (6 items)	.66	.69	.42 (.25 - .50)
(5 items)		.71	.47 (.43 - .51)

Confirmatory factor analysis

Coping measure was subjected to a second order confirmatory factor analysis. First, we tested the theoretical distinction between approach and avoidance coping strategies (Roth & Cohen, 1986), as two superordinate dimensions including the four coping strategies (SSS, SR/PS, D and I) that were therefore considered as first-order factors. In other words, we tested if SSS and SR/PS scales were two distinct factors but referred to a more general category, namely approach strategies. Moreover, we analyzed if DIS and INT scales were two aspects of the broader category of avoidance strategies. This first model didn't fit the data well (χ^2 (271) = 2231.51, p < .001; *CFI* = .95; *GFI* = .85;

AGFI = .81; *RMSEA* = .06; *SRMR* = .14). The major problem of this model was that standardized factor loadings of DIS and INT factors had opposite signs. We above mentioned that INT scale emerged in the original study (Causey & Dubow, 1992) as positively related to both approach and avoidance strategies. Moreover, in a recent study by Pozzoli and Gini (under review), using the same measure, internalizing coping strategies were found to be more similar to approach than to avoidance strategies. For these reasons, and following the directions provided by modification indices, we tested a second model in which SSS, SR/PS and INT scales loaded on the second order "approach strategies" factor, while "avoidance strategies" category corresponded to DIS scale.

Fit indices of this second model were better than the previous ones (χ^2 (272) = 2133.48, *p* < .001; *CFI* = .95; *GFI* = .86; *AGFI* = .83; *RMSEA* = .06; *SRMR* = .09), but still not satisfying. Modification indices suggested adding a correlation between the two superordinate factors. Moreover, three correlations between residuals of items 1 and 16 (SSS), 13 and 23 (SSS), and 18 and 21 (INT) were suggested. We decided to add these residual correlations because we found some communalities between these items that could justify the correlations without affecting the factorial structure and the related theoretical model of the measure. In particular, both item 1 and 16 contained an explicit reference to family members, while items 13 and 23 are specifically referred to adults in school context. Finally, items 18 and 21 of the Internalizing scale mentioned visible consequences (crying, incapacity to speak) of the emotional reaction.

After these modifications, the model (see figure F) fitted the data well and all fit indices were acceptable (χ^2 (268) = 1426.50, *p* < .001; *CFI* = .97; *GFI* = .90; *AGFI* = .88; *RMSEA* = .05; *SRMR* = .07). Multigroup analyses were run using this model and they confirmed configural (χ^2(536) = 1739.01, *p* < .001; *CFI* = .96; *RMSEA* = .05; *SRMR* = .07) and partial metric invariance ($\Delta\chi_2$(19) = 30.12, *ns*; ΔCFI = .00) across the two age groups. For each subscale the mean score was calculated for each participant. Composite reliability coefficients were: SSS CR = .62; SR/PS CR = .71; DIS CR = .67 and INT CR= .65 The second order structure confirmed by CFA was taken into consideration in Study 1 analyses.

Figure 3.5. Four-factor structure of the measure of coping strategies during bullying episodes
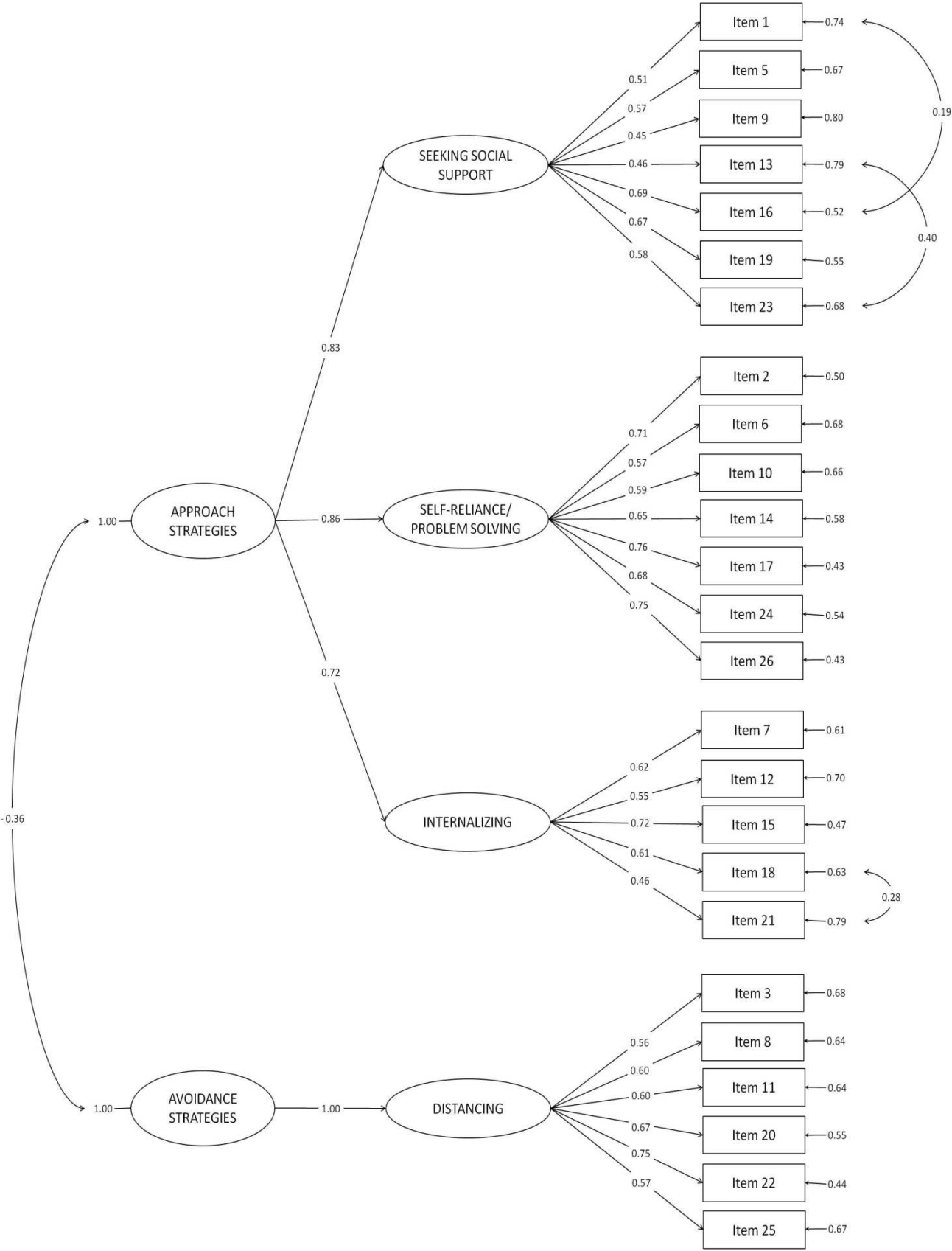
3.3.5 Perceived normative pressure

Perceived significant people's expectations regarding how the participant should behave when he/she witnesses bullying episodes was assessed. First, following Rigby and Johnson (2006), students were asked to read four brief introducing sentences: "if in my classroom someone repeatedly bullies another classmate, according to my mother/father/teachers/classmates I should…".

Then, they rated to what extent each significant person expected them to behave in each of the following ways: (a) direct intervention ("…intervene to help the victim"), (b) disregard ("…do nothing because it's not my business", *reverse code*), (c) ask for adults' intervention ("…inform an adult of what is happening so that he/she intervenes"), (d) withdrawal for self-protection ("…do nothing because I could get into trouble", *reverse code*). Each rating was given on a four-point scale, ranging from "not at all" (1) to "extremely" (4).

3.3.5.1 Perceived parent pressure (Study 1)

Psychometric properties

To analyze perceived mother and father pressure for intervention, two choices were possible: considering mother and father separately or computing an index reflecting the perceived pressure from parents. In order to make a choice between these two equally plausible alternatives, item-total correlations and Cronbach's α were considered.

Perceived mother pressure. Item-total correlation for "ask for adults' intervention" item was small (.19), so we decided to eliminate this item. The remaining three items showed good item-total correlations, ranging from .36 to .56. Moreover, Cronbach's α improvement from .60 (for four-item scale) to .65 (for three-item scale) confirmed the appropriateness of removing the problematic item.

Perceived father pressure. As in the previous case, item-total correlation for "ask for adults' intervention" item resulted small (.19). After removing this item, the other correlations were good, ranging from .43 to .59. Cronbach's α increased from .63 (four-item scale) to .70 (for three-item scale) confirming the appropriateness of removing the problematic item.

70

Perceived parent pressure. Running item-total correlations, a low value for "ask for adults' intervention" item in perceived father pressure scale (.29) emerged. After eliminating this item, the same item in the perceived mother pressure scale showed a small item-total correlation (.20). We decided to remove this item too and to run the analysis again. In this case, all correlations were good, ranging from .45 to .63. From the eight-item model to the six-item model an improvement of reliability emerged, from .78 to .80 (see Table 3.6)

In short, based on Cronbach's alpha and item-total correlation coefficients, a single scale measuring perceived parent pressure for intervention was preferred.

Table 3.6. Reliability and homogeneity of the items investigating perceived mother, father and parent pressure

Scale		Cronbach's α	Average item-total correlation
Perceived mother pressure	4 items	.60	.38 (.19 – 52)
	3 items	.65	.46 (.36 - .56)
Perceived father pressure	4 items	.63	.41 (.19 - .55)
	3 items	.70	.52 (.43 - .59)
Perceived parent pressure	8 items	.78	.47 (.29 - .55)
	6 items	.80	.56 (45 - .63)

Confirmatory factor analysis

CFA results showed that the model where only the paths between items and latent variables were considered did not fit the data well (χ^2 (9) = 462.18, *p* < .001; *CFI* = .93; *GFI* = .82; *AGFI* = .57; *RMSEA* = .17; *SRMR* = .11). Modification indices suggested adding a correlation between residuals of mother and father "direct intervention" items, mother and father "disregard" items, between mother "direct intervention" and "disregard" items and between father "direct intervention" and "disregard" items. This second model (see Figure 3.6), in which these paths were specified had an acceptable fit (χ^2 (5) = 201.24, *p* < .001; *CFI* = .99; *GFI* = .96; *AGFI* = .85; *RMSEA* = .08; *SRMR* = .03). Standardized loadings of the items on the defending factor ranged from .37 to .88 (mean

loading = .65) and were significant at the $p < .001$ level. Configural (χ^2 (10) = 69.17, $p <$ .001; *CFI* = .99; *RMSEA* = .08; *SRMR* = .02) and partial metric invariance ($\Delta\chi_2$(11) = 12.17, *ns*; ΔCFI = .00) were confirmed through multigroup analysis across primary and middle school groups. The internal consistency of the scale was of .70. A single score reflecting perceived parent pressure was computed as the mean of the six items, with higher score indicating higher perceived parent pressure for intervention in favor of the victim.

Figure 3.6. Monofactorial structure of the measure of perceived parent pressure
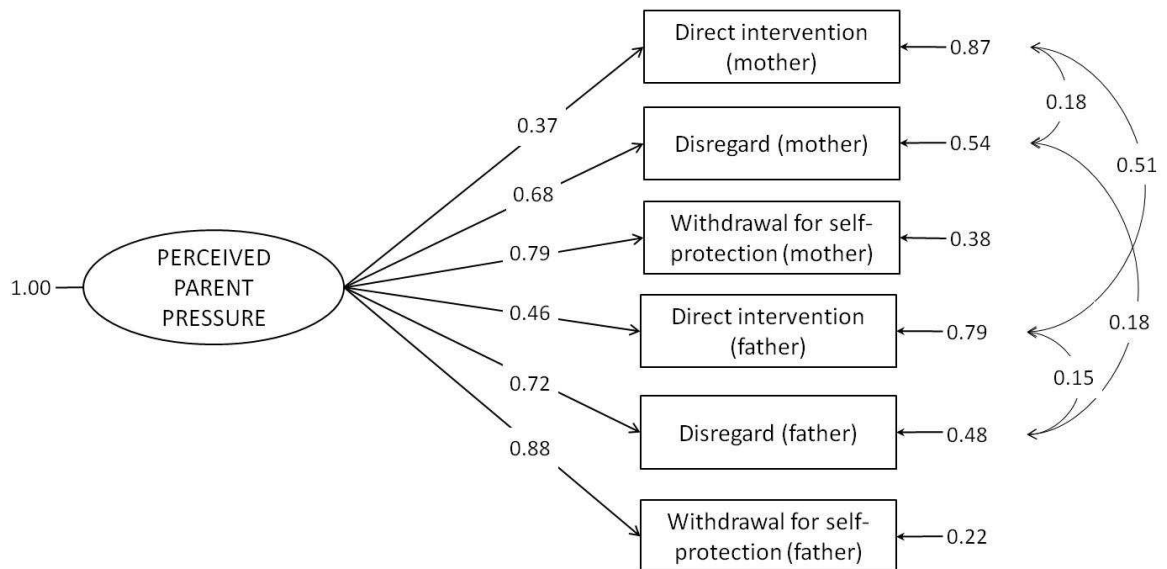
3.3.5.2 Perceived teacher pressure (Study 1 and 2)

Psychometric properties

Item-total correlations resulted greater than .30 for all items, except for items referring to asking for adults' intervention. In this case the item-total correlation was really low (.19), so we decided to eliminate this item and to run the analysis again. The remaining three items showed good correlations ranging from .38 to .55 (average item-total correlation = .48). Moreover, the improvement of the Cronbach's α from .61 (for four-item scale) to .67 (for three-item scale) confirmed the appropriateness of removing the problematic item.

72

Confirmatory factor analysis

After removing "ask for adults' intervention" item, the scale was composed of three items. This means that in the CFA the number of parameters that had to be estimated (paths between items and latent variable) was equal to the number of fixed parameters (correlations between errors). So, this was a saturated model (see Figure 3.7), where no degrees of freedom are left for testing the goodness of fit of the model. More specifically, because it was a saturated model it had perfect fit. For this reason no fit indices are reported here. The perceived teacher pressure for intervention (CR = .75) was calculated as the mean of the three items.

Figure 3.7. Monofactorial structure of the measure of perceived teacherpressure
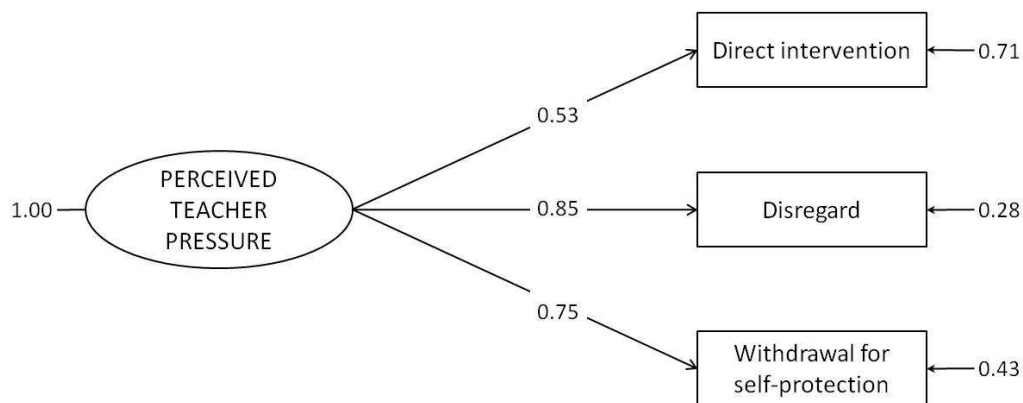
3.3.5.3 Perceived peer pressure (Study 1 and 2)

Psychometric properties

Analysis revealed item-total correlations greater than .30 for the four items, ranging from .37 to .52 (average item-total correlation = .43). Moreover, a Cronbach's α of .65 indicated an acceptable reliability of this measure.

Confirmatory factor analysis

CFA was conducted to test the monofactorial structure of the scale. The model did not fit the data well (χ^2 (2) = 122.02, *p* < .001; *CFI* = .93; *GFI* = .94; *AGFI* = .69; *RMSEA* = .18; *SRMR* = .08). Following modification indices suggestion, a correlation between the

residuals of the two items negatively worded (i.e., disregard and withdrawal for self-protection) was added. The fit indices of this second model (see Figure 3.8) was good (χ^2 (1) = 6.36, p = .01; *CFI* = 1.00; *GFI* = 1.00; *AGFI* = .97; *RMSEA* = .06; *SRMR* = .02). Standardized loadings ranged from .35 to .77 (mean loading = .58) and were significant at the p <.001 level. Multigroup analysis confirmed both configural invariance (χ^2 (2) = 4.96, *ns*; *CFI* = 1.00; *RMSEA* = .04; *SRMR* = .01) and partial metric invariance ($\Delta\chi_2$(4) = 6.08, *ns*; Δ*CFI* = .00) across age groups. The mean score on the four items was calculated (CR = .64), so that a higher score represented a higher perceived peer pressure for intervention.

Figure 3.8. Monofactorial structure of the measure of perceived peer pressure
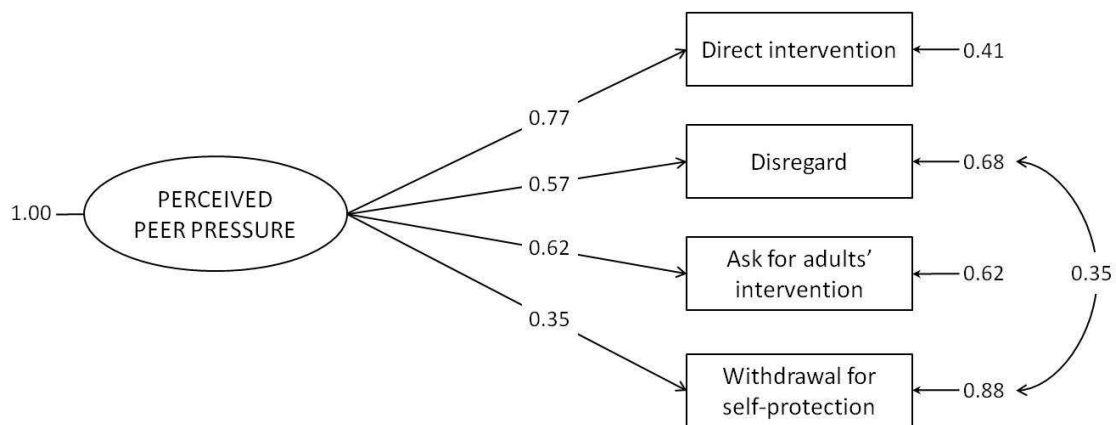
Chapter 4

STUDY 1. CORRELATES OF DEFENDING AND PASSIVE BYSTANDING BEHAVIOR: PERSONAL CHARACTERISTICS AND PERCEIVED PRESSURE FOR INTERVENTION

4.1 Introduction

Most studies on bullying rely on the 'traditional' classification of students into bullies, victims, bully/victims and uninvolved children (e.g., Ball et al., 2008; Frisen, Jonsson, & Persson, 2007; Holt & Espelage, 2007; Juvonen, Graham, & Schuster, 2003; Veenstra et al., 2005). Recently, this approach has been criticized and several authors (e.g., Gini, 2006b; Gini, Albiero, et al., 2007, 2008; Goossens, Olthof, & Dekker, 2006; Menesini et al., 2003a; Schäfer & Korn, 2004; Tani et al., 2003) have stressed the importance of considering bullying as a group phenomenon in which most of the students not directly involved as bullies or victims assume other roles relevant to the bullying process. According to the participant role approach (Salmivalli et al., 1996), some students join in the bullying and act as assistants of the bully or offer positive feedback to him/her, behaving as reinforcers. Conversely, there are students who can side with the victims and personally intervene to stop the bullying, defend and comfort the victimized schoolmate, or ask for teachers' help. Other students—the so-called passive bystanders or outsiders—tend to withdraw from the scene, deny any bullying is going on, or remain as a silent audience.

As described in detail in Chapter 2, a clear limitation of the current literature on participant roles is the little attention paid to defenders' and passive bystanders' individual characteristics and to the possible correlates distinguishing them.

The current study is an attempt to partially fill this gap. In order to identify some variables that could potentially distinguish students who tend to intervene in favor of the victim from students that prefer standing aside, Latanè and Darley's (1970) five step model was taken into consideration. As described in Chapter 2, this model originated

from the need to understand why people try or don't try to help in an emergency. In particular, the two authors focused on social emergencies (e.g., an attempted murder, a stranger needing help in the street, a female victim of violence). These emergencies differ from bullying situations for one main reason: whereas the former ones are usually unexpected, the latter ones are repeated over time by definition, so they cannot be defined as totally surprising. Nevertheless, social emergencies have some interesting points in common with bullying episodes: a) the presence of one or more victims; b) the fact that an individual needs help, so that she/he is unable to defend herself/himself; c) the potential risk for those people who decide to intervene. Defending the victim, consoling her/him, directly stopping the bully or advising adults may lead to the risk of becoming the next victim or being isolated (Juvonen & Galván, 2008). At its core, bullying is in fact a form of social power (Vaillancourt, Hymel, & McDougall, 2003) and it involves efforts to protect or enhance one's own status by taking advantage of the social vulnerabilities of others (Pellegrini, 2002; Salmivalli & Peets, 2008; Veenstra et al., 2007). As a consequence, bullies often enjoy a high status and are perceived as cool, powerful and popular within peer groups (Caravita et al., 2009; Juvonen et al., 2003; Rodkin, Farmer, Pearl, & Van Acker, 2006; Vaillancourt et al., 2003). So, when an individual decides to intervene in favor of the victim, he/she may not only face the bully, but also all people who support her/him.

The conception of defending behavior in bullying as a potentially risky behavior represents the main reason why we hypothesized that Latané and Darley's model (1970) could represent a good starting point in trying to understand defending vs passive bystanding behavior. This model (see Figure 2.1) represents a step by step description of how people can decide to help in an emergency. First, people must notice that something has occurred. Second, they must interpret the event as an emergency and not as something that is innocuous. The third step that must occur is that someone must take responsibility for intervention. Fourth, when all the previous conditions are met, a person must also know what form of assistance to give, otherwise, he/she will be unable to help. The last step concerns the decision of implementing the help. In fact, even if previous steps have been satisfied, people might decide not to intervene because they feel unqualified to help or are too afraid of the costs to themselves. Helping responses can be inhibited at any stage of the process and subsequently no help is

76

provided, so that each step influences the following ones. As suggested by the authors (Latané & Darley, 1969) when real emergencies happen people are not so rational in deciding to intervene and their behavior can be influenced by other variables (e.g., mood, number of bystanders, social norms).

4.2 The present study

In the current study we investigated if the model of Latané and Darley could be useful in explaining defending and passive bystanding behavior during bullying situations. In particular we focused on the second, third and fourth steps of the model and on the behavioral outcome (defending *vs* passive bystanding behavior). The first step was not considered in this study because it specifically concerns unexpected situation and the ability to shift attention when something unpredicted takes place. With regard to the fifth step, in our opinion it would be really difficult to reliably measure the "decision to help" in bullying situations through a questionnaire, succeeding in distinguish this dimension from actual behavior.

The three central steps of the model which were investigated are as follows:

(a) Interpreting the event as an emergency: the analysis of attitudes towards bullying.

A crucial step in any defending behavior involves considering whether what is happening requires some form of intervention. Sometimes the need is clear (e.g., a child falling to the ground while playing soccer, bleeding a lot and urgently needing medical attention). However, in many situations the event is not so clear or it can be perceived as ambiguous (see Clark & Word, 1972). As suggested by Taylor, Peplau and Sears (2006, p. 381) "our interpretation or definition of a situation is a vital factor in whether we offer aid". For example, Shotland and Straw (1976) found that people reacted in different ways in front of the same fight scene, depending on how they perceived the situation (i.e., lovers' quarrel or fight between strangers) and on the basis of their attitudes regarding the situation they perceived. Indeed, findings of this study showed that participants that interpreted the violence as being part of a "domestic" dispute claimed that the event was a private matter or that it was not particularly serious. So, the perceived relationship between people involved in the violence served to 'legitimate' the violence more than the case in which the violence occurred between strangers. Fazio (1990) also suggested that behavior can be influenced by one's attitude toward the

object in question "to the extent that individuals engage in any construal or interpretation of the attitude object and the situation in which the attitude object is encountered. There exists the possibility of attitudes guiding behavior toward the object" (p. 78). In other words, social behavior can be considered to be a function of the individual perception of the situation and the perception of the situation is strictly linked to attitudes toward that situation and toward people involved.

The suggestion that attitudes guide perceptions is not new. Allport (1935) argued that "attitudes determine for each individual what he will see and hear. . . . They draw lines about and segregate an otherwise chaotic environment; they are our methods for finding our way about in an ambiguous universe" (p. 806). Indeed, researchers on attitudes have long considered that one of the main functions of attitudes was that of organizing and structuring a rather chaotic universe of "objects" (Katz, 1960; Smith, Bruner, & White, 1956). As suggested by Smith and colleagues (1956) an attitude provides "a ready aid for 'sizing up' objects and events in the environment" (p. 41).

Moving from these assumptions, we considered attitudes towards bullying as one of the possible variables through which the second step of Latanè and Darley's model can be operationalized. Specifically, students who perceive bullying as something funny and not serious at all, and that consider victims as weak people who deserve to be bullied, are expected to be more indifferent when bullying happens and less likely to consider it as an emergency that requires their intervention. In contrast, students holding a negative view of bullying, as something that should not happen, are expected to be more prone to consider bullying as a serious problem that merits bystanders' intervention.

Studies on attitudes towards bullying have reported that most students generally sympathize with the victims and disapprove of bullies (Boulton, Bucci, & Hawker, 1999; Menesini, Eslea et al., 1997; Randall, 1995; Rigby & Slee, 1993). However, few of them are inclined to intervene or to inform adults (Cunningham et al., 1998; O'Connell, Pepler, & Craig, 1999). Previous research in this field showed a positive association between positive attitudes towards victims and approval of students who intervened to stop bullying (Salmivalli & Voeten, 2004; Rigby & Slee, 1993). Moreover, Rigby and Johnson (2006) found that positive attitudes towards the victims was one of the most important predictors of expressed intention to intervene.

78

In conclusion, we analyzed participants' attitudes towards bullying assuming that negative attitudes reflect a perception of bullying episodes as emergencies that need to be stopped.

(b) Taking responsibility for providing help: Perceived personal responsibility for intervention.

Another important factor in the development of a tendency to act prosocially may be learning to assume responsibility for the welfare of others. The ability to reason effectively about the negative consequences of aggression on others contributes to the creation of a sense of responsibility for others (Laible, Eye, & Carlo, 2008). Several experiments in social psychology (e.g., Moriarity, 1975; Maruyama, Fraser, & Miller, 1982) demonstrated that when individuals feel personal responsibility, they are significantly more likely to help.

This is a crucial point of the model, because after that bystanders understand the emergency state of a situation, they must decide whether or not to take personal responsibility and to intervene (Darley & Latané, 1968). Latané and Darley identified in this step the main critical point that gave a partial explanation for the lack of action taken by witnesses to Kitty Genovese's murder (Schroeder, Penner, Dovidio, & Piliavin., 1995). In short, bystanders clearly noticed the event and interpreted it as an emergency; however, each of them believed that someone else would help her and, consequently, did not feel personal responsibility for intervention.

To our knowledge, the role of personal responsibility in bullying has never been directly investigated and no previous studies have identified personal responsibility as a possible characteristic distinguishing defenders from passive bystanders. Given the particular conditions in which it occurs, helping the victim of bullying should be regarded as a complex behavior that includes not only the positive attitude towards the victim, but also a 'moral' assumption of personal responsibility to intervene. In other words, defending behavior implies a personal assumption of responsibility for others' welfare (Staub, 2003). Indeed, some authors suggested that defenders' high moral sensibility could partly explain their prosocial behavior (Hoffman, 2001; Menesini et al., 2003a) and that prosocial behavior is more likely to happen if people have incorporated into their self-concepts moral values concerning responsibility to others.

(c) Deciding how to help: coping responses in response to witnessing bullying.

This step anticipates the actual behavior and concerns the decision about what to do. So, bystanders have to decide which are the most appropriate strategies to react to bullying. If people do not know what to do or if they prefer distancing themselves from such situations (e.g., because it is too stressful), they will not intervene, despite their attitudes or their sense of personal responsibility. It is clear that, in this step, people's social skills become crucial (Gini, Albiero, et al., 2008). For our purposes and in order to investigate this step, we analyzed participants' coping strategies when they witness bullying, hypothesizing a positive relation between approach strategies (i.e., problem solving, seeking social support) and defending behavior. Conversely, we expected that distancing coping strategies predicted passive bystanding behavior.

Past research on bullying have analyzed the coping strategies adopted by bullied children (Kristensen & Smith, 2003; Salmivalli, Karhunen, & Lagerspetz, 1996; Smith, Shu, & Madsen, 2001). However, coping strategies adopted by onlookers when they see a peer being bullied have surprisingly received little attention. More specifically, as far as we know, no previous studies have analyzed coping responses of children who are in front of others' negative life events (i.e., other peers' being victimized) instead of personal events. Camodeca & Goossens (2005) asked students to pretend they were witnessing a hypothetical bullying episode and to say what they would do in that situation or what they thought were the best ways to cope with bullying. However, how bystanders actually respond to bullying suffered by other classmates remains unanswered (Lodge & Frydenberg, 2005).

Summarizing these three steps, and in light of the model of Latané and Darley, a series of direct and indirect effects were hypothesized (see Figure 4.1). First, we hypothesized that positive attitudes towards victims (i.e., negative attitudes towards bullying) were positively related to personal responsibility for intervention and to approach coping strategies, both directly and indirectly via personal responsibility; in contrast, a negative association between attitudes and distancing coping strategies was expected. Both a direct and an indirect association via personal responsibility are hypothesized also in this case. Moreover, we expected that defending behavior was positively predicted by approach coping strategies and negatively by distancing strategies. In contrast, we predicted a positive relation between passive bystanding behavior and distancing and a negative association with approach coping strategies.

In other words, we hypothesized that students who consider bullying as something wrong and unacceptable are more likely to think that they have the responsibility to do something. Both negative attitudes towards bullying and the assumption of responsibility should lead people to adopt coping strategies aimed at solving the situation (e.g., problem solving, asking for help). This sort of coping response is hypothesized as positively related to actual defending behavior and negatively related to passive bystanding behavior. This last behavior (i.e., looking the other way when bullying occurs) would derive from the selection of distancing coping strategies, that can be linked with positive attitudes towards bullying and with a deficiency of personal responsibility for intervention.

The final hypothesized model is graphically represented in Figure 4.1, where the expected correlations between coping strategies and between defending and passive bystanding behavior are also represented.

Figure 4.1. The hypothesized model derived from Latané and Darley's model (1970)
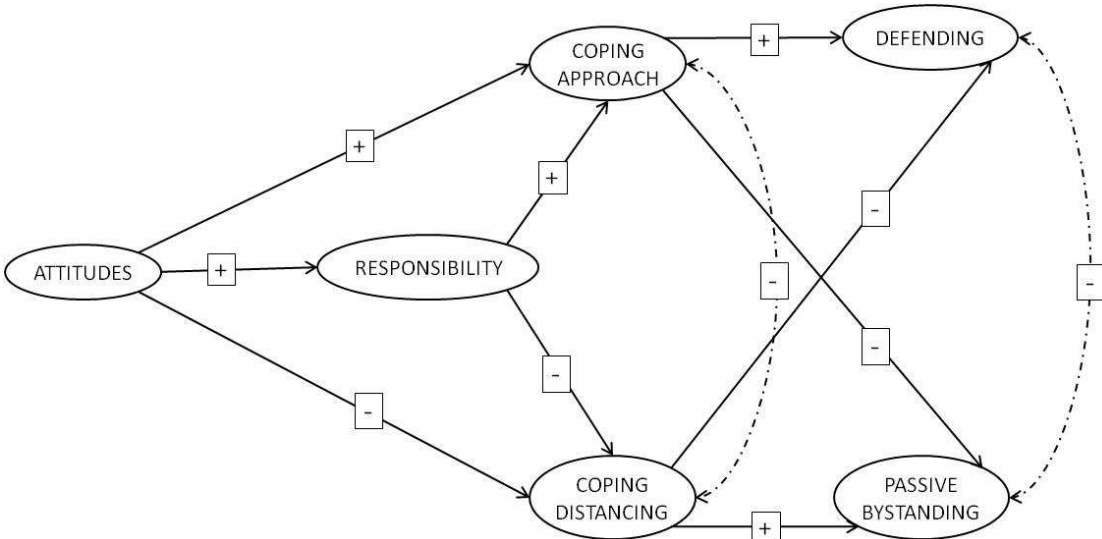
As mentioned above, individual behavior probably cannot be considered merely as a result of these steps. In particular, the perception of social norms and others' expectations might play a role in influencing individual behavioral choices as well as

attitudes, sense of responsibility and coping response selection. We know that bullying behavior is sometimes approved by social norms that do not necessarily reflect the private attitudes of most group members but nevertheless promote compliance within the group (Espelage et al., 2003; Gini, 2006b, 2007; Juvonen & Galvàn, 2008). Consistent with the idea that perceived expectations of significant others might also be associated with students' individual behavior, Rigby and Johnson (2006) recently found that believing that parents and friends (but not teachers) expected them to support the victims were significant predictors of students' expressed intention to intervene. Even though, in that study, participants' willingness to intervene in the face of a hypothetical bullying scenario was measured, rather than actual intervention in real bullying episodes, results indicate that children's reactions to bullying episodes may be affected by perceived normative pressure.

Therefore, we investigated whether perceived normative pressure for intervention contributed to explain actual defending and passive bystanding behavior and had an effect on influencing participants' characteristics (i.e., attitudes, responsibility, coping responses). Consistent with previous research (e.g., Brown, Clasen, & Eicher, 1986; Griesler & Kandel, 1998; Rigby & Johnson, 2006), we conceptualized this variable as the perception of expectations from significant others regarding appropriate behavior during a bullying episode (e.g., "When a child is being bullied, according to my classmates / mother / father / teachers I should intervene and help the victim") and we hypothesized that such a perception, together with other individual variables, may provide interesting information for the explanation of defending and passive bystanding behavior.

The reasons why parents, teachers and peers are important in order to understand children and adolescents' behavior have been explained in depth in Chapter 2. Here, we merely remember that the important role played by perceived expectations from significant others in influencing individual behavior has been shown in different research areas (e.g., Sieving, McNeely, & Blum, 2000; Simons-Morton, 2002; Simons-Morton & Rusan, 2009; Whitaker & Miller, 2000; Wood, Nagoshi, & Dennis, 1992). Even though this influence has been mainly studied regarding negative outcomes, a similar association can be expected with prosocial behavior. For this reason, we hypothesized that perceived normative pressure for intervention in favor of the victim from parents,

teachers and peers had a positive association with defending behavior and a negative association with passive bystanding behavior. Moreover, we hypothesized that perceived expectations for intervention were positively associated with pro-victim attitudes, personal responsibility and approach coping strategies, and negatively associated with distancing coping strategies. Indeed, we theorized that perceived normative pressure influenced not only behavior as a sort of "obedience" to others' expectations, but also contributed to attitude construction, sense of personal responsibility formation and the development and the choice of coping strategies in the face of bullying.

A further aim of this study was to test whether the hypothesized model would be valid in both the age-groups. Specifically, concerning the part of the model represented in Figure W there are no reasons to hypothesize age differences. Indeed, even if the literature showed age differences in single variables (e.g., a trend toward diminishing provictim scores with age; Rigby & Slee, 1991), on the basis of previous studies specific differences in the strength of model paths cannot be hypothesized. Therefore, we may expect that the configural pattern of this part of the model will be invariant in primary and middle school participants. In contrast, as far as normative pressure is concerned, differences between younger and older students are expected. Past research had underlined that the role of adults (parents above all) in influencing children's behavior, beliefs, opinions and skills decrease as children enter early adolescence. At the same time, more and more importance is taken by the peer group, in terms of description and prescription of behavioral norms (see Harris, 1995). So, we hypothesized that links between parent and teacher pressure, on the one hand, and behavior, attitudes, responsibility and coping strategies, on the other hand, will be stronger in younger, as compared with older, participants. In contrast, a greater influence of peer pressure was expected in primary than in middle school students.

Finally, in the current study we were not interested in analyzing gender differences in the hypothesized relations and no specific hypotheses concerning gender guided our model formulation. However, previous studies have reported that gender affects some of the variables considered in our study. For example, attitudes towards bullying tend to be more negative in girls than in boys (e.g., Menesini, Eslea et al., 1997; Rigby & Slee, 1993), and girls behave as defenders more often than boys (Salmivalli et

al., 1998; Jeffrey, Miller, & Linn, 2001). Therefore, gender was included in the model as a control variable.

4.3 Method

4.3.1 Participants

A total of 759 children attending 48 primary school classes (23 4th grade classes and 24 5th grade classes) and 995 students attending 54 middle school classes (26 7th grade classes and 28 8th grade classes) participated in this study. Participants' characteristics and the selection process of the final sample are fully described in Chapter 3.

4.3.2 Measures

An exhaustive description of all measures is presented in Chapter 3. In this paragraph just a brief summary of characteristics of each measure used in this study is provided.

Defending and passive bystanding behavior during bullying episodes. Defending the victim and passive bystanding behaviors were measured by three items, with one item for each type of bullying: physical (i.e., hitting and pushing), verbal (i.e., threatening and teasing), and relational (i.e., spreading rumors and excluding from the group). Participants were asked to rate how often (during the current school-year) they had enacted the behavior described in each item on a 4-point scale from 1 (never) to 4 (almost always).

Attitudes towards bullying. Students' attitudes towards bullying were measured through an adapted version of Salmivalli and Voeten's (2004) scale, by asking the participants to evaluate the extent to which they agreed with 10 statements about bullying (e.g., one should try to help the bullied victims; bullying may be fun sometimes, *reverse coded*). One item was removed based on the confirmatory factor analysis presented in Chapter 3. The level of agreement was expressed on a 4-point scale (1 = strongly disagree, 4 = strongly agree). A pro-victim attitude score was computed by averaging the students' answers on the 9 items. The higher a student scored on the scale, the more his/her attitudes were against bullying and in favor of the victim.

Coping strategies. Given the unique nature of bullying, it was important to analyze specifically the role of coping responses to observations of bullying, rather than in other problematic situations. So, a modified version of the Self-Report Coping Measure (SRCM; Causey & Dubow, 1992; Kristensen & Smith, 2003) was used to assess four kinds of coping strategies used during bullying episodes: Seeking Social Support (7 items), Self-Reliance/Problem-Solving (7 items), Distancing (6 items) and Internalizing (6 items). One item assessing internalizing coping strategies was removed based on the confirmatory factor analysis (see Chapter 3), so that Internalizing scale was composed of 5 items. The hypothetical situation read as follows: "When in my classroom someone repeatedly bullies another classmate (insulting, hitting, threatening, damaging objects, spreading rumors or excluding from the group) I usually…". The participants answered the questions on a 5-point scale, ranging from 1 (never) to 5 (always).

Perceived personal responsibility. Participants' sense of responsibility to intervene in favor of the victim was measured through four items: "Helping classmates who are repeatedly teased, hit or left out is my responsibility", "In my classroom, if someone is surrounded by mindless gossip, pushed or threatened I don't have to do anything" (reverse scored), "It is my responsibility to find a way so that in the classroom nobody is insulted, excluded or attacked", "It's not up to me to do something so that nobody in my classroom is repeatedly offended, pushed or left on one's own" (reverse scored). Participants rated their agreement with each item on a 6-point scale from 1 (totally disagree) to 6 (totally agree). Higher scores indicated a higher sense of responsibility for intervention.

Perceived parent/peer/teacher normative pressure. Perceived expectations regarding how the participant should behave when he/she witnesses bullying episodes was assessed. Students rated to what extent other people expected them to behave in each of the following ways: (a) direct intervention ("…intervene to help the victim"), (b) ask for adults' intervention ("…advise an adult of what is happening so that he/she intervene"), (c) disregard ("…do nothing because it's not my business"), (d) withdrawal for self-protection ("…do nothing because I could get into trouble"). Each rating was given on a 4-point scale, ranging from 1 (not at all) to 4 (extremely). As far as peer pressure is concerned, the mean score on the four items was calculated. Concerning teacher pressure, based on the confirmatory factor analysis presented in Chapter 3, the

mean score on items (a), (c) and (d) were computed. Finally, mean score on items (a), (c) and (d) of mother and father scales were considered together, so that final mean score represented perceived parent pressure. In each case, higher scores represented a higher perceived pressure for intervention.

4.4 Results

4.4.1 Gender and age differences on individual variables.

Means and standard deviations of all variables are presented in Table 4.1. In order to test gender and age differences, a series of t-tests was conducted. Effect sizes are expressed as Cohen's d. As one can see in Table 4.1, girls and younger students reported higher defending behavior than boys and older students did. Opposite results emerged with respect to passive bystanding behavior, meaning that boys and middle school students scored higher than girls and primary school students. Moreover, girls showed more positive attitudes towards victims and used approach coping strategies more often than boys. Analyses of age differences showed that younger children scored higher than older students on all individual variables. Finally, as far as perceived pressure is concerned, younger students perceived higher peer pressure for intervention than older students. In contrast, perceived teacher pressure for intervention was lower in primary school children than in middle school students.

4.4.2 Correlations between study variables

We ran correlation analyses between all the study variables (see Table 4.2). Defending and passive bystanding behavior were negatively correlated (r = -.44, p < .001). Defending behavior was positively correlated with all the individual variables (attitudes, responsibility and approach coping strategies; .26 < r < .55, all ps < .001) except with distancing coping strategies with which a negative association emerged (r = -.20, p < .001). An opposite pattern emerged when the relation between passive bystanding behavior and individual variables was considered (r = .33, p < .001 for distancing and -.16 < r < .42, all ps < .001 for the other variables).

Table 4.1. Descriptive statistics and comparisons by grade and gender.

	Full sample (N = 1754)	Boys (N = 912)	Girls (N = 842)	T-test (gender)	Primary school (N = 759)	Middle school (N = 995)	T-test (grade)
	Mean (SD)	Mean (SD)	Mean (SD)		Mean (SD)	Mean (SD)	
Defending	2.70 (.75)	2.63 (.76)	2.77 (.74)	-3.87***	2.85 (.75)	2.58 (.74)	7.38***
Passive bystanding	1.79 (.64)	1.87 (.67)	1.69 (.60)	5.86***	1.72 (.62)	1.84 (.66)	-3.84***
Attitudes towards bullying	3.54 (.44)	3.45 (.47)	3.63 (.38)	-8.67***	3.63 (.38)	3.46 (.47)	7.90***
Personal responsibility	3.93 (.02)	3.89 (1.05)	3.98 (.99)	-1.83	4.04 (1.01)	3.85 (1.02)	3.93***
Seeking Social Support	2.79 (.79)	2.70 (.79)	2.90 (.77)	-5.50***	2.96 (.74)	2.67 (.80)	7.91***
Self-reliance/Problem-Solving	3.41 (.77)	3.34 (.79)	3.49 (.74)	-4.10***	3.50 (.75)	3.33 (.78)	4.52***
Distancing	2.30 (.76)	2.33 (.79)	2.27 (.73)	1.55	2.39 (.77)	2.24 (.75)	4.05***
Internalizing	2.37 (.77)	2.21 (.74)	2.53 (.77)	-8.87***	2.48 (.78)	2.28 (.75)	5.45***
Perceived peer pressure	2.80 (.69)	2.81 (.70)	2.79 (.68)	.64	2.94 (.66)	2.69 (.70)	7.44***
Perceived parent pressure	3.13 (.65)	3.15 (.65)	3.12 (.65)	.95	3.13 (.67)	3.13 (.63)	-.04
Perceived teacher pressure	3.23 (.70)	3.22 (.72)	3.25 (.68)	-.91	3.13 (.73)	3.30 (.67)	-5.11***

Note: * $p<.05$, ** $p<.01$, *** $p<.001$

Table 4.2. Correlations between all study variables.

	1	2	3	4	5	6	7	8	9	10
1. Defending	-									
2. Passive bystanding	-.44***	-								
3.Attitudes towards bullying	.27***	-.33***	-							
4. Personal responsibility	.41***	-.42***	.39***	-						
5. Seeking Social Support	.36***	-.26***	.36***	.36***	-					
6. Self Reliance/Problem Solving	.55***	-.39***	.36***	.47***	.54***	-				
7. Internalizing	.26***	-.16***	.19***	.22***	.41***	.41***	-			
8. Distancing	-.20***	.33***	-.26***	-.32***	-.18***	-.28***	-.05*	-		
9. Perceived peer pressure	.24***	-.32***	.31***	.33***	.28***	.27***	.07**	-.18***	-	
10. Perceived parent pressure	.21***	-.26***	.29***	.37***	.14***	.21***	.01	-.24***	.38***	-
11. Perceived teacher pressure	.07**	-.13***	.21***	.21***	.08**	.12***	-.02	-.17***	.20***	.56***

Note: * $p<.05$, ** $p<.01$, *** $p<.001$

As far as associations between the individual variables are concerned, positive attitudes toward victims were positively associated with personal responsibility ($r = .39$, $p < .001$). Then, both these variables positively correlated with the three approach coping strategies ($.19 < r < .47$, all $ps < .001$) and were negatively associated with distancing responses ($-.26 < r < .32$, all $ps < .001$). These results gave a first confirmation of the plausibility of applying Latanè and Darley's model to the bullying context.

An analysis of the association between perceived pressure from significant people and all other variables revealed that in all cases (peers, parents, teachers) pressure for intervention was positively associated with defending behavior and negatively correlated with passive bystanding behavior. However, whereas correlations involving peers and parents pressure were moderate ($.21 < |r| < .32$, all $ps < .001$), when teacher pressure was considered correlations with behavior were very small ($r = .07$, $p < .01$ and $r = -.13$, $p < .001$ for defending and passive bystanding, respectively).

Finally, results confirmed that perceived pressure for intervention is related not only with individual behavior but also with the other individual variables (negatively with distancing and positively with all the other variables), except for internalizing strategies.

4.4.3 Testing the model

We tested the hypothesized model on the covariance matrix through a Structural Equation Modeling (SEM) analysis. LISREL Version 8.54 (Jöreskog & Sörbom, 1993) was used. SEM produces several fit indices that determine the degree to which the specified model fits the sample data.

The fit indices used in this study were: the Satorra-Bentler scaled chi-square (χ^2), the comparative fit index (CFI), the goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI), the root mean square error of approximation (RMSEA) and the standardized root mean square residual (SRMR). These indices and the conventional criteria used to evaluate the fit of the model are presented in detail in Chapter 3, where we described CFA analyses. A brief summary of the criteria is presented in Table 4.3. Here we would like to remind the reader that the use of the χ^2 test with large samples ($N > 200$; Jöreskog & Sörbom, 1996) is problematic. For this reason, more attention will be paid to the other fit indices. It is also important to remember that sometimes, even in the

presence of good fit indices, the tested model could present paths that did not reach statistical significance; therefore, for each model we also reported the significance of the hypothesized paths.

Table 4.3. Conventional criteria for decision on the fit of the model

Index	Good fit	Acceptable fit
χ^2 (*p value)*	$.05 < p \leq 1.00$	$.01 < p \leq .05$
CFI	$.97 \leq p \leq 1.00$	$.90 \leq p < .97$
GFI	$.95 \leq p \leq 1.00$	$.90 \leq p < .95$
AGFI	$.90 \leq p \leq 1.00$	$.85 \leq p < .90$
RMSEA	$.00 \leq p \leq .05$	$.05 < p \leq .08$
SRMS	$.00 \leq p \leq .05$	$.05 < p \leq .10$

Note: see Browne and Cudeck (1993), Hu and Bentler (1995) and Schermelleh-Engel, Moosbrugger and Müller (2003) for references on fit criteria.

In the specified model, on the basis of CFA presented in the previous chapter, coping approach strategies were considered as a latent variable identified by the SSS, the SR/PS and the INT scales, whereas all the other variables were entered as observed variables. Given the results of t-tests and given the findings of previous studies mentioned above, gender (dummy coded: M = 0, F = 1) was also included as a predictor in the model to control for its effect on the other variables.

Gender and peer, parent and teacher perceived pressure were exogenous variables, whereas attitudes towards bullying, personal responsibility, coping strategies and the two outcome behaviors were endogenous variables.

4.4.3.1 Description of the model

In order to test our hypotheses, we specified a model in which:

(i) all endogenous variables were regressed on gender and on the three types (i.e., peer, parent and teacher) of perceived pressure;

(ii) personal responsibility was regressed on attitudes towards bullying;

(iii) approach and avoidance coping strategies were regressed on attitudes towards bullying and personal responsibility;

90

(iv) defending and passive bystanding behaviors were regressed on approach and distancing coping strategies.

(v) a negative correlation was hypothesized between approach and distancing coping strategies and between defending and passive bystanding behavior.

(vi) correlations between gender and perceived peer, parent and teacher pressure were introduced.

For the sake of simplicity, the hypothesized model without exogenous variables is presented in Figure 4.1.

4.4.3.2 Results of structural equation modeling analyses

As a first step, we tested the model on the whole sample using the *Weighted Least Squares* (WLS) method. The model did not fit the data well (χ^2 (26) = 1028.92, *p* < .001; *CFI* = .89; *GFI* = .90; *AGFI* = .70; *RMSEA* = .15; *SRMR* = .11). An interesting result emerged, so that perceived teacher pressure did not have significant effect on any other variable. We therefore decided to remove perceived teacher pressure from the model and to run the analysis again. The fit of the model improved, but it was still not acceptable (χ^2 (21) = 457.33, *p* < .001; *CFI* = .95; *GFI* = .95; *AGFI* = .84; *RMSEA* = .11; *SRMR* = .07) and some of the paths were not statistical significant. We removed these paths one by one, starting from the path with the smaller standardized loading. We performed this process until all the specified paths were statistically significant[1]. We then tested the model again. The fit of the model was generally acceptable (χ^2 (29) = 483.91, *p* < .001; *CFI* = .94; *GFI* = .95; *AGFI* = .88; *RMSEA* = .10; *SRMR* = .07), but modification indices suggested adding the correlation between perceived peer and parent pressure. The modified model including this path was tested and fitted the data well (χ^2 (28) = 235.88, *p* < .001; *CFI* = .97; *GFI* = .97; *AGFI* = .94; *RMSEA* = .07; *SRMR* = .04).

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[1] Specifically, we deleted (in increasing order of magnitude): the paths between gender and distancing coping strategies, between distancing coping strategies and defending behavior, between gender and personal responsibility and between gender and defending behavior, the correlation between gender and perceived peer pressure, the path between perceived peer pressure and defending behavior, the correlation between gender and perceived parent pressure and the path between perceived peer pressure and distancing.

Figure 4.2. Final structural equation model
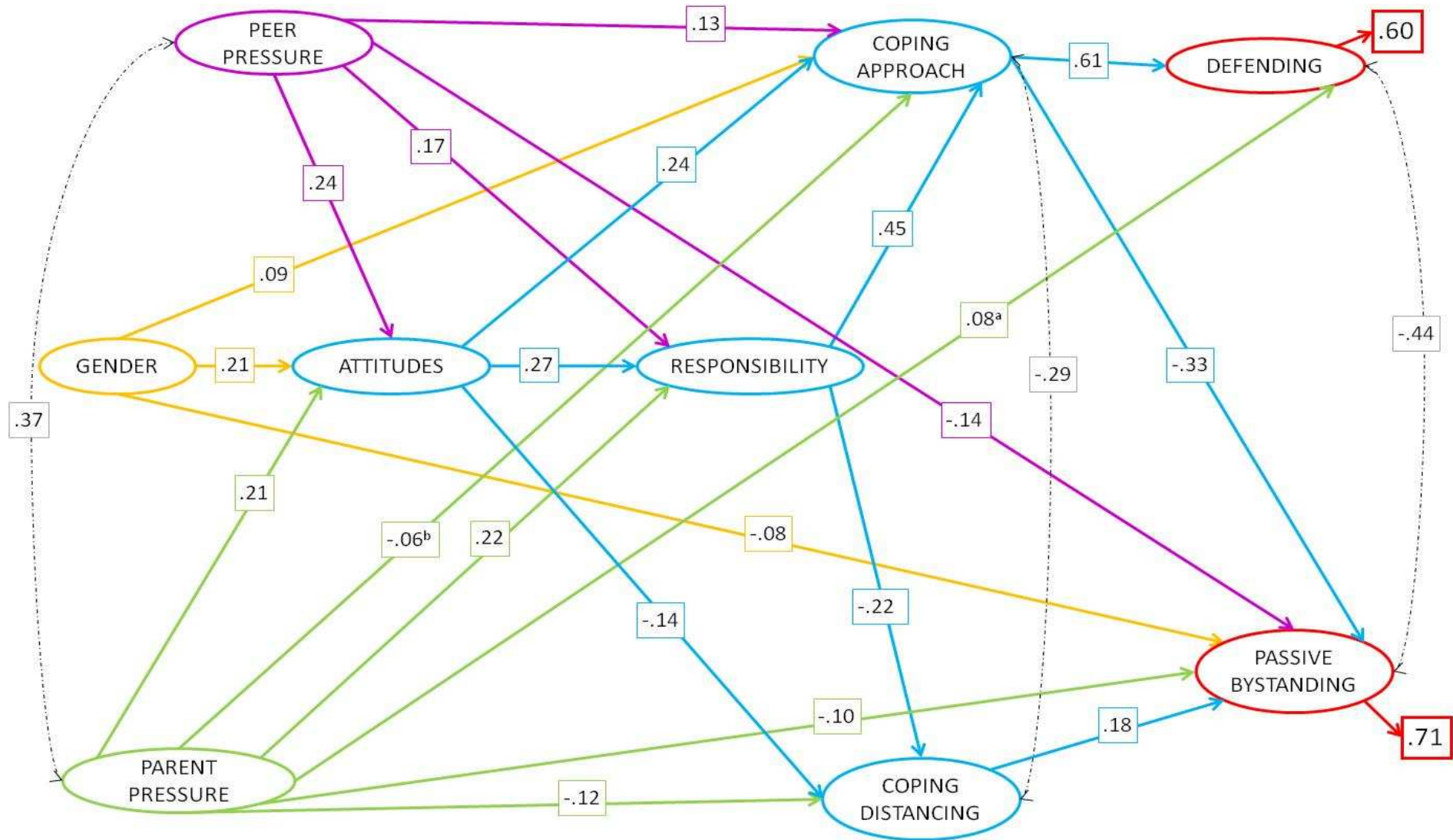
The final model, represented in Figure 4.2, explained 40% of variance of defending behavior and 29% of passive bystanding behavior. Except for the negative link between distancing coping strategies and defending behavior, the adaptation of Latané and Darley model was totally confirmed (see blue paths). Moreover, the role of both parent and peer perceived pressure in influencing behavior and other individual variables was confirmed.

We also hypothesized that the pattern of relations was similar across primary and middle school age groups. Moreover, we hypothesized stronger relations between perceived peer pressure and the other variables in middle school, as compared with those in primary school, and the opposite pattern as far as perceived parent pressure was concerned. To test these hypotheses, a multigroup structural equation modeling was performed.

The good fit indices of the unconstrained multigroup model demonstrated the configural invariance of the model across the two age groups (χ^2 (56) = 286.39, $p < .001$; CFI = .97; $RMSEA$ = .07; $SRMR$ = .04). This analysis showed that the path between perceived parent pressure and approach coping strategies was not significant, neither in the primary school group nor in middle school one. Moreover, in primary school sample the correlation between approach and distancing coping strategies was not significant.

Subsequently, in order to test metric invariance, we constrained all loadings to equality across groups and this resulted in a reliable reduction in model fit ($\Delta\chi^2$ (38) = 181.49, $p < .001$; ΔCFI = .02). In other words, this multigroup test indicated significant differences between the two age levels, because the unconstrained model fitted the data significantly better than the model in which loadings were constrained to be equal across the two age groups. This means that the total metric invariance of the model across age groups was not confirmed.

Based on this result, we tried to identify which paths of the model could be considered metrically invariant and which paths had instead different magnitude in the two groups. To this end, we fixed, one by one, the paths that had the smallest differences in standardized loading between the two groups until the $\Delta\chi^2$ between this model and the unconstrained model was significant. The list of fixed paths is presented in Table 4.4. In Figure 4.3, the resulting multigroup model is depicted: thick lines represent paths that differed in the two groups, whereas thin lines are referred to paths that are

invariant in the two groups. For visual clarity, standardized loadings that differed across groups have a colored background. In line with our hypothesis, the path linking perceived peer pressure with individual attitudes was stronger in older students than in younger children. All the other expected differences concerning perceived peer and parent pressure were not confirmed.

Table 4.4.

Fixed paths	Δ standardized loading between groups
Coping approach ⇨ Passive bystanding	.00
Coping distancing ⇨ Passive bystanding	.00
Perceived parent pressure ⇨ Passive bystanding	.00
Gender ⇨ Coping approach	.02
Perceived peer pressure ⇨ Coping approach	.02
Perceived parent pressure ⇨ Defending	.02
Defending ⇔ Passive bystanding (*correlation*)	.02
Perceived parent pressure ⇨ Personal responsibility	.03
Perceived parent pressure ⇨ Coping distancing	.03
Attitudes toward bullying ⇨ Coping distancing	.03
Gender ⇨ Passive bystanding	.05
Perceived peer pressure ⇨ Passive bystanding	.06
Perceived parent pressure ⇨ Attitudes toward bullying	.06
Perceived peer pressure ⇨ Personal responsibility	.08
Attitudes towards bullying ⇨ Personal responsibility	.12
Personal responsibility ⇨ Coping distancing	.13

Figure 4.3. Final model tested through multigroup analysis in the two age groups.

Primary school participants

Middle school participants

Note: [a] $p < .01$, [b] $p < .05$, all the other $ps < .001$

4.5 Discussion

The aim of this study was to test a model that described the different relationships between perceived normative pressure and individual variables, and their associations with defending and passive bystanding behavior in primary and middle school students. Our findings substantially confirmed that Latané and Darley's (1970) model concerning defending and passive bystanding behavior during emergencies can be successfully adapted to school bullying. Specifically, results of this study showed that positive attitudes towards victims enhanced personal responsibility for intervention and both these characteristics led people to adopt approach coping strategies. Using this type of coping responses in the face of bullying means that defending behavior is more likely to happen, whereas it decreases the chance that people behave as passive bystanders. Passive bystanding is, on the other hand, predicted by distancing coping strategies. The validity of this model was further supported by the results of the multigroup analysis, which demonstrated the partial metrical invariance of the model across the two age groups, with some paths being stronger in one group than in the other.

Moreover, we analyzed the contribution to this model of perceived normative pressure from people with whom students have significant relationships regarding how one should behave as a bystander when witnessing a classmate being bullied. We anticipated that the perceived expectations from parents, friends, and teachers could have some influence both on behavioral outcome and on attitudes, personal responsibility and in choosing coping strategies. Results confirmed our hypotheses concerning peer and parent perceived normative pressure. Furthermore, expected age differences in the role of peer influence on individual characteristics was partially confirmed, in that the effect of perceived peer expectations on attitudes towards bullying was stronger in older students than in younger children. This result is consistent with past research that has underlined the growing importance of peers in influencing beliefs, attitudes, and norms during middle school years (Bukowski, Newcomb, & Hartup, 1996; Harris, 1995; Juvoven & Galvàn, 2008). In contrast, our findings did not support the hypothesis of a weaker parents' influence among older participants. Future research could investigate whether the role of perceived parent

pressure on individual defending and passive bystanding is also stable during middle adolescence.

In short, these results substantially expand previous findings (Rigby & Johnson, 2006) suggesting that the influence of perceived peer and parent pressure is not limited to students' intention to intervene, but that it may impact on students' actual behavior in bullying situations and their personal characteristics associated with these outcomes, such as attitudes towards bullying, perceived personal responsibility for intervention and coping responses in the face of bullying episodes.

An interesting result emerged as regards the role of perceived expectations of teachers, which seem to have no influence on students' characteristics or behavior, as already reported by Rigby and Johnson (2006) with a different methodology. Past research suggested that many early adolescents tend to be indifferent to the opinions, beliefs and advices views of teachers, for example in seeking to resolve conflicts between students (Rigby & Bagshaw, 2003). More surprisingly, in this study these non-significant findings were also found within the younger group of students, suggesting that the influence of teachers in promoting positive bystander behavior may be no longer effective in upper primary school, at least when peer and parent pressure is accounted for. Given the time spent by teachers with students and their frequent involvement in anti-bullying interventions, further research is needed in order to understand this result.

In conclusion, the model tested in this study shows that both individual variables and the perception of social cues, in terms of significant others' expectations, can provide a significant contribution in explaining bystanders' behavior during primary and middle school years. Moreover, this study represents a step ahead towards a better understanding of the various psychosocial mechanisms lying beneath different witnesses' behavior during bullying episodes and it may have potential interest for both researchers and educators.

Notwithstanding these results, the current study also has some limitations. For the sake of simplicity, they will be discussed with those of Study 2 in Chapter 6, together with possible implications for intervention programs and further potential development of this line of research.

Chapter 5

STUDY 2. THE ROLE OF CLASS INJUNCTIVE AND DESCRIPTIVE NORMS ON INDIVIDUAL DEFENDING AND PASSIVE BYSTANDING BEHAVIOR

The findings of Study 1 showed that, beside the important function of individual characteristics in affecting behavior, the context, in terms of perceived expectations from significant others, plays a significant role in influencing both individual variables and actual behavior. In this second study we aim to further explore the relation between social context and behavior, focusing in particular on class context as the most relevant social context for bullying and analyzing how norms within the class influence individual behavior.

As early as 1936 Lewin suggested the importance of social context for explaining individual behavior, stating that behavior is a function of the people and their environment. Over the last 40 years, this theory has received increasing attention following on from Bronfenbrenner's (1977, 1986) seminal studies. Family contexts, in particular, have received the greatest attention (Kroneman, Loeber, Hipwell, & Koot, 2009; Morris, Silk, Steinberg, Myers, & Robinson, 2007; Shaw & Bell, 1993), even if, in more recent years, there is gathering evidence that peer settings also play a critical role in different areas of children's development (Ali & Dwyer, 2009; Jonkmann, Trautwein, & Ludtke, 2009; Kellam, Xiange, Mersica, Brown, & Ialongo, 1998; Monahan, Steinberg, & Cauffman, 2009).

A particular type of peer context is represented by school classes. Ecological models of development emphasize the role of classes as unique socialization environments that complement the socialization experiences within the family and other peer groups (Bronfenbrenner, 1979; Kellam et al., 1991). However, even though several authors investigating peer relationships assume the class to be an important social context within which children interact, this has seldom been considered in past

studies. As suggested by Chang (2004) this choice has two main consequences. First, much of the between-class variation has been unaccounted for or left to confound the individual-level associations. Second, social developmental theories consequently derived reflect individual differences in behaviors but not the role of social groups within which social interactions take place.

The current study is the first to investigate bystanders' behavior during bullying episodes focusing on the role of class context, in terms of injunctive and descriptive norms. Specifically, it tests whether the aggregate measure of individual perceived normative pressure for intervention in favor of victims (i.e., injunctive norms) might represent a class climate that promotes or hinders defending and passive bystanding behavior when bullying occurs. Moreover, the class is not exclusively conceptualized as a peer setting, but the role of teachers, as relevant members of the class context, is also taken into account. Finally, this study investigates whether the frequency of a behavior within class (i.e., descriptive norms) is associated with the probability that that particular behavior is enacted by a member of the class.

There are two main reasons for considering the class as a relevant context when bullying is investigated. First of all, from a conceptual point of view, bullying is specifically described as a school phenomenon and several authors agree that classes represent an important context for understanding and tackling it (e.g., Atria, Strohmeier, & Spiel, 2007; Doll, Song, & Siemers, 2004; Hanish, Kochenderfer-Ladd, Fabes, Martin, & Denning, 2004). Doll and colleagues (2004), for example, suggested that two characteristics of classes' ecosystems are particularly relevant to understand bullying: (a) the quality of social relationships in the class (e.g., among students or between students and teachers), and (b) the support for people within the class, including support for students self-efficacy and self-determination. Thus, the class can be considered as a social context in which students can bring their social skills into play, learn how to interact with peers and how to solve conflicts. Moreover, within this context, students develop their social identity, gain their social status, socialize attitudes and beliefs, and model each other's behavior. Second, differently from school settings in other countries, in Italy students remain in a single classroom with the same classmates all day and, in almost all cases, for more than one year. This is a further reason why

100

classes, instead of the whole school, should be considered as the immediate context when peer relationships in school are considered (Chang, 2003).

Having positive relationships within the class has been found to be a protective factor against bullying (Hodges, Malone, & Perry, 1997; Kochenderfer & Ladd, 1997; Schwartz, Dodge, Pettit, & Bates, 2000), especially relationships with friends possessing skills to protect the victim rather than friends who are themselves victimized (Pellegrini et al., 1999). Students' chances to establish positive relationships with classmates are related to particular routines and practices. For example, positive interactions are more likely to emerge within a class when children have frequent and meaningful opportunities to spend time with each other (Doll, Murphy, & Song, 2003; Renshaw & Asher, 1983). Moreover, another potential protective factor against bullying may be the number of children (non-friends and friends) in the classroom who are willing to defend against bullying (Doll et al., 2004). Indeed, classmates may encourage, discourage, or maintain bullying within the classroom (Salmivalli, 2001; Salmivalli et al., 1996). For example, the presence of large numbers of "defenders" in the peer group may inhibit bullying, whereas "assistants" and "reinforcers" can increase its prevalence.

Several studies adopting the person-group dissimilarity model (Sentse et al., 2007), person–group similarity model (Boivin, Dodge, & Coie, 1995; Wright et al., 1986), or life course/social field theory (Kellam et al., 1998) support the view that class composition has an impact on how a child's social behavior is viewed by classmates and on how the child behaves subsequently. However, previous research regarding class influence on individual behavior primarily focused on academic "ability grouping" (Dornbusch, Glasgow, & Lin, 1996; Lleras & Rangel, 2009; Slavin, 1993). In contrast, research investigating "social grouping", or how the social aspects of classes influence children's behavior, is still rather limited.

5.1 The role of norms in influencing individual behavior.

There are different ways of considering class environmental influences on individual behavior, for example examining class characteristics such as size, organization, affiliation and support (Moos, 1979). For our purposes, it is important to underline that the class group, like any other group, involves different rules and social norms (Goodenow, 1992). Three types of norms can be identified. In addition to

individual students' perception of norms regarding what people expect from them (as considered in Study 1), class injunctive and descriptive norms, that is second-level or group norms, can be considered. The concepts of injunctive and descriptive norms were introduced in Chapter 2. Briefly, injunctive norms refer to which type of behavior is considered appropriate by the group (Cialdini et al., 1991), whereas descriptive norms refer to what most people do (Cialdini et al., 1991) or to the extent to which a behavior exists in a group (Chang, 2004).

To this respect, of particular interest is the theoretical model proposed by Chang (2004), called Social Context Model. Chang investigated the relation between acceptance from classmates and individual behavior (i.e., aggression, prosocial behavior, and social withdrawal) as a function of behavior frequency in the class context. The author claimed that the meaning and the social impact of a behavior fairly depends on the extent to which the behavior is enacted in the social context or, in other terms, to that behavior descriptive norm. In other words, a particular individual behavior will be more accepted by other peers in groups in which the same behavior is more prevalent than in groups in which it is less prevalent. Chang's definition of descriptive norms applies particularly well to bullying since, as most social behavior, different participant roles behavior coexist in the same context. Nonetheless, different contexts (i.e., different school classes) might significantly differ on the relative frequency of each behavior, thus holding different descriptive norms of behaviors.

The distinction between injunctive and descriptive norms is consistent with Deutsch and Gerard's (1955) distinctions between social norms as prescriptions for behavior ("what ought to be") and social norms as descriptors for behavior ("what is"). Several studies have investigated the role of these two types of norms in influencing individual behavior, in particular analyzing deviant behaviors, for example drinking behavior (Berkowitz, & Perkins, 1986; Borsari & Carey, 2003), substance abuse (Elek, Miller-Day, & Hecht, 2006), gambling (Larimer & Neighbors, 2003) and risky sexual behavior (Ben-Zur, 2003; Schaalma, Kok, & Peters, 1993).

The important role of social norms was also confirmed when specifically school class descriptive and injunctive norms were considered, so that these two types of norms in a class influence both class climate and individual behavior. Past research suggests that positive behaviors (e.g., prosocial interactions) are more likely to increase

102

if many students within the class exhibit high levels of these behaviors and reinforce them in others (Barth, Dunlap, Dane, Lochman, & Wells, 2004). Similarly, classes with high numbers of students with deviant behavior are likely to perpetuate these maladaptive behaviors. Other studies suggest that exposure to classrooms with many aggressive members may increase the risk of individuals engaging in aggressive behavior (Barth et al., 2004; Kellam, Ling, Merisca, Brown, & Ialongo, 1998; Thomas, Bierman, et al, 2006). No study, so far, has analyzed the role of these two types of class norms on defending and passive bystanding behavior in bullying.

5.2 The context in which bullying occurs.

As more extensively discussed in Chapter 2, several studies have confirmed that the context in which bullying takes place is likely to influence children's perception, attitudes, and behavior (e.g., Pellegrini & Long, 2002). For example, adherence to peer group norms, homophily, social identity concerns, and other group mechanisms might contribute to victim's perception and to bullying conduct among peers (Gini, 2006b; Nesdale et al., in press; Salmivalli et al., 1998). The processes of social influence among classmates can be particularly pervasive. Bullying behavior can be, implicitly or explicitly, approved by social norms, which not necessarily reflect the private attitudes of group members but nevertheless promote compliance within the group (Espelage, Holt, & Henkel, 2003; Gini, 2006b, 2007; Henry et al., 2000; Juvonen & Galvan, 2008). Less we know about whether such group norms and peer expectations can shape the behavior of students witnessing bullying. Even though observers do not necessarily join in bullying, the perceived expectations of others with whom one has a significant relationship as well as what other actually do might be associated with students' active intervention or withdrawal. For example, Salmivalli and colleagues (1998) found that preadolescents' behavior in bullying situations was more influenced by what their current peers in the immediate network tended to do in similar situations than by their own previous behavior. Moreover, Rigby and Johnson (2006) reported that believing that friends expected them to support the victims were one of the most important predictors of students' expressed intention to intervene.

5.3 The present study.

Taken together, findings described above suggest that bystanders' behavior in bullying, like any other social behavior, should be considered as the outcome of the interaction between personal and contextual characteristics (Ladd, 2003) in order to be better understood. This Child x Environment approach is particularly useful to explain how individual characteristics, motivational states and social context (especially shared relationships and experiences with peers) may combine to affect individual behavior. In this study we investigated the relations between norms about defending and passive bystanding behavior during bullying episodes and individual behavior. At the individual level, students' perceived pressure to intervene was considered, whereas at the class level, the role of both injunctive and descriptive norms was analyzed. Perceived pressure and injunctive norms were computed considering both classmates and teachers as significant people within the class context that could potentially influence individual students' behavior, because both peers and teachers play an important role in setting the overall tone of the classroom (Hanish, Kochenderfer-Ladd, Fabes, Martin, & Denning, 2004; Henry et al., 2000; see Paragraphs 2.2.2.1 and 2.2.2.3).

As far as perceived pressure for intervention is concerned, and consistent with the findings described above, a positive relation between perceived peer and teacher pressure, on the one hand, and defending behavior, on the other hand, was hypothesized. The opposite relation was expected for passive bystanding behavior. Moreover, given the age of our participants and the results of Study 1, we hypothesized a stronger influence of peer pressure than of teacher pressure on individual behavior. Finally, we expected that, given the growing importance of peer groups during adolescence (Rubin, Bukowski, & Parker, 1998), the influence of peer pressure would be stronger in middle school than in primary school.

As far as class norms are concerned, we hypothesized significant between-class variation depending on class injunctive and descriptive norms. First, we anticipated that defending behavior would depend on class injunctive norms regarding pro-victim intervention. In particular, we expected that the greater these class injunctive norms were, the higher the frequency of individual defending behavior was. The reverse pattern of results for individual passive bystanding behavior was expected, with injunctive norms for intervention negatively predicting this type of behavior. For the

104

same reason mentioned above, we hypothesized that this effect would emerge especially when peer (instead of teacher) injunctive norms were considered. Finally, we hypothesized that, consistent with previous research on different topics (i.e., substance use, risky sexual behavior, or alcohol abuse), individuals would be more prone to adopt a particular behavior (defending vs passive bystanding) when that specific conduct was normative in the class, that is when the considered behavior was more frequently adopted by classmates.

5.4 Method

5.4.1 Participants

A total of 786 children attending 48 primary school classes (23 4th grade classes and 24 5th grade classes) and 1017 students attending 54 middle school classes (26 7th grade classes and 28 8th grade classes) participated in this study. Participants characteristics and the selection process of the final sample are fully described in Chapter 3.

5.4.2 Measures

The measures used in the study are fully described in Chapter 3. In short, the variables used in this study are described below.

5.4.1.1 Individual-level variables

Behaviors during bullying episodes. Bullying others, being victimized, defending the victim and passive bystanding were measured by three items, with one item for each type of bullying: physical (i.e., hitting and pushing), verbal (i.e., threatening and teasing), and relational (i.e., spreading rumors and excluding from the group). Participants were asked to rate how often (during the current school-year) they had engaged in the behavior described in each item on a 4-point scale from 1 (never) to 4 (almost always).

Perceived peer pressure. Perceived peers' expectations regarding how the participant should behave when he/she witnesses bullying episodes was assessed through four items: (a) direct intervention ("...intervene to help the victim"), (b) ask for adults' intervention ("...inform an adult of what is happening so that he/she can intervene"), (c) disregard ("...do nothing because it's not my business"), (d) withdrawal

for self-protection ("...do nothing because I could get into trouble"). Answers on a 4-point scale, ranging from 1 (not at all) to 4 (extremely), were averaged, with higher scores representing a higher perceived peer pressure for intervention.

Perceived teacher pressure. Similarly, participants were asked to rate perceived teachers' expectations regarding expected behavior during bullying episodes. Higher scores indicated a higher perceived teacher pressure for intervention in favor of the victim.

5.4.1.2 Class-level variables

Class variables (i.e., second-level variables) were computed as the mean of classmates' scores in the relevant scale.

Injunctive and descriptive norms. Class aggregates of defending and passive bystanding behavior were used to measure the descriptive norms regarding these two behaviors, that is to what extent the considered behavior is normative in the class ("what is"). Class aggregates of peer and teacher pressure were used as a measure of the injunctive norms within the class ("what ought to be").

Class victimization. Class victimization was entered as a Level-2 control variable, since we wanted to analyze the influence of class descriptive and injunctive norms on individual defending and passive bystanding behavior controlling for the level of victimization in the class. In fact, our two behavioral outcomes are strictly related to the presence of one or more victims in the class and it is possible that their frequency depends on the overall level of victimization in the class (e.g., frequent defending behavior because there is an high level of victimization).

5.4.3 Overview of the analyses

Since both the data (students nested within classes) and the hypotheses (the association between individual and class-level factors on students' defending and passive bystanding behavior) are multilevel in nature (Raudenbush & Bryk, 2002), multilevel analysis, also known as hierarchical linear modeling (HLM, Raudenbush & Bryk, 2002), was performed. Single level models would be inappropriate for the current analyses because they assume that regression coefficients apply equally to all contexts, while our aim was to investigate whether and how they vary across context. Moreover,

106

HLM is also useful for investigating the moderating influences of the environment on associations that occur at the individual level. Furthermore, HLM examines the individual and the group level simultaneously and estimates the proportion of variance accounted for by each of these levels. Finally, use of multilevel modeling also addresses the limitation of aggregation bias, that refers to the difference in meaning and effects of variables at different levels (Vieno, Santinello, & Mirandola, 2005). For example, in our study, perceived pressure at the individual level is conceptually different from perceived pressure at the group level (i.e., an indicator of class climate).

Multilevel regression analyses were conducted using HLM 6.04 Software (Raudenbush & Bryk 2002). This program does not report standardized regression coefficients, so, in order to enhance the interpretability of the regression coefficients, all continuous predictors at Level-1 (individual level) were centered around their class means prior to analysis, while continuous predictors at Level-2 (class level) were centered around their grand mean (Luke, 2004). As suggested by Chang (2004), in interpreting multilevel results it is important to know that a characteristic of HLM results is that HLM estimates of Level-2 coefficients and variance components can take small numerical values that are nonetheless of practical significance. The small values are in part the results of having different measurement units across levels, especially when Level-1 regression coefficients take on smaller units than do Level-2 predictor variables.

As a preliminary step, in order to identify the proportion of variance in the dependent variable (defending or passive bystanding behavior measured at the student level) that was accounted for by classes (i.e., Level-2 units), the unconditional model was estimated to obtain the intraclass correlation coefficient (ICC). This index is estimated by the following equation:

$$\hat{\rho} = \hat{\tau}_{00} \ / \ (\hat{\tau}_{00 \ +} \hat{\sigma}^2)$$

where $\hat{\tau}_{00}$ is the estimated variance in the classes (Level-2), while $\hat{\sigma}^2$ is the estimated Level-1 variance.

This first step is necessary to decide whether a multilevel model is even needed in the first place. If the chi squared associated with the ICC resulted significant, we then

tested whether class injunctive and descriptive norms were associated with individual defending or passive bystanding behavior, after adjusting for student-level variables.

The following individual student characteristics were included as Level-1 indicators: gender (boy = 1, girl = 2), grade (primary school = 1, middle school = 2), bullying, victimization, perceived peer pressure and perceived teacher pressure. Thus, the individual-level model (Level-1) includes four control variables and two predictors, both for defending and for passive bystanding behavior. These particular control variables were considered because past research reported age and gender differences between defending and passive bystanding behavior (Goossens, Olthof, & Dekker, 2006; Salmivalli et al., 1996; Salmivalli & Voeten, 2004); moreover, individual experiences with bullying others or being victimized might also influence the choice to intervene or to look the other way in front of other peers being bullied.

The following class characteristics were modeled as Level-2 variables: class victimization (as a control variable), peer injunctive norms, teacher injunctive norms, descriptive norm about defending or passive bystanding behavior (according to the behavioral outcome). Specifically, a series of three nested models was estimated in HLM for each outcome (defending and passive bystanding behavior). To evaluate improvement of fit between models, AIC (Akaike information criterion; Akaike, 1974) indices were compared: the smaller the index is, the better the model is. This index derives from the *deviance* value (a transformation of the likelihood obtained by multiplying the natural log of the likelihood by minus 2):

AIC = *deviance* + 2(number of parameters)

A brief description of the three models with the relative equations follows.

In Model 1, the influence of the individual-level covariates on each outcome was examined.

Individual level:

$Y_{ij} = \beta_{0j} + \beta_{1j}(\text{gender}) + \beta_{2j}(\text{grade}) + \beta_{3j}(\text{bullying behavior}) + \beta_{4j}(\text{victimization}) + \beta_{5j}(\text{perceived peer pressure}) + \beta_{6j}(\text{perceived teacher pressure}) + \varepsilon_{ij}$

Class level:

$\beta_{0j} = \gamma_{00} + u_{0j}$

In Model 2, we added the influence of class injunctive norms (class peer and teacher pressure).

Individual level:

$Y_{ij} = \beta_{0j} + \beta_{1j}(\text{gender}) + \beta_{2j}(\text{grade}) + \beta_{3j}(\text{bullying behavior}) + \beta_{4j}(\text{victimization}) + \beta_{5j}(\text{perceived peer pressure}) + \beta_{6j}(\text{perceived teacher pressure}) + \varepsilon_{ij}$

Class level:

$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{class victimization}) + \gamma_{02}(\text{class peer pressure}) + \gamma_{03}(\text{class teacher pressure}) + u_{0j}$

$\beta_{1j} = \gamma_{10}$

$\beta_{2j} = \gamma_{20}$

$\beta_{3j} = \gamma_{30}$

$\beta_{4j} = \gamma_{40}$

$\beta_{5j} = \gamma_{50}$

$\beta_{6j} = \gamma_{60}$

Finally, in Model 3 class descriptive norm about the correspondent outcome behavior was entered.

Defending behavior:

Individual level:

$Y_{ij} = \beta_{0j} + \beta_{1j}(\text{gender}) + \beta_{2j}(\text{grade}) + \beta_{3j}(\text{bullying behavior}) + \beta_{4j}(\text{victimization}) + \beta_{5j}(\text{perceived peer pressure}) + \beta_{6j}(\text{perceived teacher pressure}) + \varepsilon_{ij}$

Class level:

$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{class victimization}) + \gamma_{02}(\text{class peer pressure}) + \gamma_{03}(\text{class teacher pressure}) + \gamma_{04}(\text{class defending behavior}) + u_{0j}$

$\beta_{1j} = \gamma_{10}$

$\beta_{2j} = \gamma_{20}$

$\beta_{3j} = \gamma_{30}$

$\beta_{4j} = \gamma_{40}$

$\beta_{5j} = \gamma_{50}$

$\beta_{6j} = \gamma_{60}$

Passive bystanding behavior:

Individual level:

$Y_{ij} = \beta_{0j} + \beta_{1j}$(gender) $+ \beta_{2j}$(grade) $+ \beta_{3j}$(bullying behavior) $+ \beta_{4j}$(victimization) $+ \beta_{5j}$(perceived peer pressure) $+ \beta_{6j}$(perceived teacher pressure) $+ \varepsilon_{ij}$

Class level:

$\beta_{0j} = \gamma_{00} + \gamma_{01}$(class victimization) $+ \gamma_{02}$(class peer pressure) $+ \gamma_{03}$(class teacher pressure) $+ \gamma_{04}$(class passive bystanding behavior) $+ u_{0j}$

$\beta_{1j} = \gamma_{10}$

$\beta_{2j} = \gamma_{20}$

$\beta_{3j} = \gamma_{30}$

$\beta_{4j} = \gamma_{40}$

$\beta_{5j} = \gamma_{50}$

$\beta_{6j} = \gamma_{60}$

We decided to enter injunctive and descriptive norms in two separate steps because we wanted to analyze the unique contribution of each of these contextual variables. As a last step, we wanted to test whether any Level-2 variable could predict the two Level-1 regression slopes of our interest (perceived peer and teacher pressure). For this reason, using Model 1 as a starting point, we tested a fourth model where we allowed Level-1 intercept and slopes to vary across classes.

Individual level:

$Y_{ij} = \beta_{0j} + \beta_{1j}$(gender) $+ \beta_{2j}$(grade) $+ \beta_{3j}$(bullying behavior) $+ \beta_{4j}$(victimization) $+ \beta_{5j}$(perceived peer pressure) $+ \beta_{6j}$(perceived teacher pressure) $+ \varepsilon_{ij}$

Class level:

$\beta_{0j} = \gamma_{00} + u_{0j}$

$\beta_{1j} = \gamma_{10}$

$\beta_{2j} = \gamma_{20}$

$\beta_{3j} = \gamma_{30}$

$\beta_{4j} = \gamma_{40}$

$\beta_{5j} = \gamma_{50} + u_{5j}$

$\beta_{6j} = \gamma_{60} + u_{6j}$

5.5 Results

5.5.1 Gender and grade differences on individual variables.

Means and standard deviations of individual variables are presented in Table 5.1. In order to analyze whether these means were statistically different depending on gender and grade, a series of t-tests were conducted. Effect sizes are expressed as Cohen's d. As one can see in Table 5.1, girls and younger students reported higher defending behavior than boys and older students did. Opposite results emerged with respect to passive bystanding behavior, where boys and middle school students scored higher than girls and primary school students. Bullying and victimization were higher in primary school than in middle school. Moreover, boys bullied more often than girls.

As far as perceived peer and teacher pressure are concerned, t-test results showed differences between grade levels. Specifically, while perceived peer pressure was stronger in primary than in middle school, the opposite pattern emerged as regards to perceived teacher pressure, where older students scored higher than younger students.

5.5.2 Correlations between study variables

We ran correlation analyses between all the study variables, both at the individual and at the class level (see Table 5.2).

5.5.2.1 Correlations between individual variables

At individual level, defending and passive bystanding behavior was negatively correlated (r = -.44, p < .001). Moreover, while students with higher scores in bullying were more inclined to report high levels of passive bystanding behavior (r = .28, p < .001), the same positive relationship emerged between victimization and defending behavior (r = .27, p < .001).

Finally, in line with our hypothesis, perceived pressure for intervention from peers and teachers was positively related to defending behavior (r = .24, p < .001 and r = .07, p < .01) and negatively associated with passive bystanding behavior (r = -.32, p < .001 and r = -.13, p < .001). However, although significant, correlations between perceived teacher pressure and the two behavioral outcomes were very small.

Table 5.1. Individual variables: descriptive statistics and comparisons by gender and grade

	Full sample (*N* = 1803)	Boys (*N* = 941)	Girls (*N* = 862)	T-test (gender)	Primary school (*N* = 786)	Middle school (*N* = 1017)	T-test (grade)
	Mean (*SD*)	Mean (*SD*)	Mean (*SD*)		Mean (*SD*)	Mean (*SD*)	
Defending	2.66 (.75)	2.63 (.75)	2.77 (.75)	-4.06***	2.85 (.75)	2.58 (.74)	7.70***
Passive bystanding	1.79 (.64)	1.88 (.67)	1.70 (.60)	6.01***	1.72 (.62)	1.84 (.66)	-3.92***
Bullying	1.59 (.51)	1.68 (.55)	1.49 (.45)	8.04***	1.62 (.54)	1.56 (.49)	2.36*
Victimization	1.80 (.65)	1.82 (.66)	1.78 (.63)	1.44	2.00 (.70)	1.65 (.56)	11.54***
Perceived peer pressure	2.80 (.70)	2.82 (.70)	2.79 (.69)	.80	2.95 (.66)	2.69 (.70)	7.84***
Perceived teacher pressure	3.23 (.70)	3.21 (.72)	3.25 (.68)	-1.04	3.13 (.73)	3.30 (.66)	-5.12***

Note: * *p*<.05, *** *p*<.001

5.5.2.2 Correlations between individual and class variables

Moderate positive correlations between individual defending and passive bystanding behavior and associated descriptive norms emerged (defending: $r = .38$, $p < .001$; passive bystanding: $r = .33$, $p < .001$). The same pattern of results was found concerning perceived peer and teacher pressure at individual and class level (i.e., injunctive norms) (peer: $r = .41$, $p < .001$; teacher: $r = .31$, $p < .001$). Because of possible problems of multicollinearity, these results should be taken into consideration when computing multilevel analyses.

5.5.2.3 Correlations between class variables

Descriptive norms concerning defending and passive bystanding behavior were negatively correlated ($r = -.67$, $p < .001$). The level of victimization was positively related to class defending behavior ($r = .45$, $p < .001$) and negatively associated with class passive bystanding behavior ($r = -.10$, $p < .001$), even if in this case the correlation was small.

Injunctive peer norms were strongly associated to descriptive norms, positively with class defending behavior ($r = .58$, $p < .001$) and negatively with class passive bystanding behavior ($r = -.59$, $p < .001$). In contrast, a negative, but small, correlation between injunctive teacher norms and descriptive norms concerning defending behavior ($r = -.15$, $p < .001$) and an even smaller positive correlation with descriptive norms concerning passive bystanding behavior ($r = .05$, $p < .05$) emerged. The independence between injunctive norms from peer and teachers was confirmed by the null correlation between these two variables ($r = .006$, *ns*).

Table 5.2. Correlations of individual (Level-1) and classroom level (Level-2) variables.

		Level-1						Level-2			
		1	2	3	4	5	6	7	8	9	10
Level-1	1. Defending	-									
	2. Passive bystanding	-.44***	-								
	3. Bullying	-.07**	.28***	-							
	4.Victimization	.15***	.03	.27***	-						
	5. Perceived peer pressure	.24***	-.32***	-.17***	-.01	-					
	6. Perceived teacher pressure	.07**	-.13***	-.16***	-.09***	.21***	-				
Level-2	7. Descriptive norm about defending behavior	.38***	-.22***	-.03	.19***	.24***	-.05	-			
	8. Descriptive norm about passive bystanding behavior	-.26***	.33***	.10***	-.04	-.24***	.02	-.67***	-		
	9. Victimization	.17***	-.03	.08**	.43***	.13***	-.09***	.45***	-.10***	-	
	10. Peer injunctive norms	.22***	-.20***	-.10***	.13***	.41***	.01	.58***	-.59***	.31***	-
	11. Teacher injunctive norms	-.06*	.02	-.09***	-.12***	.01	.31***	-.15***	.05*	-.29***	.01

Note: * $p<.05$, ** $p<.01$, *** $p<.001$

5.5.3 Multilevel analyses

5.5.3.1 Intraclass Correlation Coefficients

To compute the ICCs for the two outcomes, we followed the procedure mentioned above. As far as defending behavior is concerned, an ICC of 0.0989 indicated that 9.9% of the total variance of individual defending behavior lay between classes. With regard to passive bystanding behavior, the ICC was 0.0593, so that 5.9% of the variation of this behavior was allocated between classes. In both cases, the estimated class variance of the considered behavior was statistically significant ($\chi^2_{(100)}$ = 294.64, p < .001 and $\chi^2_{(100)}$ = 212.08, p < .001 for defending and passive bystanding behavior, respectively). The estimated reliability with which classes can be distinguished on defending behavior is .66, while it is .52 when passive bystanding behavior is considered.

5.5.3.2 Multilevel Analyses for Defending Behavior

Level 1 – Student-Level Analysis. In Model 1 we analyzed the relationship between some individual variables and defending behavior, controlling for students' class membership. Results are reported in Table 5.3.

As far as control variables are concerned, bullying behavior negatively predicted defending behavior, while a positive relation with individual victimization emerged. Defending behavior was higher in girls and in younger students.

With regard to perceived pressure for intervention, only perceived peer expectations were related to defending behavior, whereas perceived teacher pressure did not emerge as a significant predictor.

Individual predictors entered in Model 1 explained 5.9% of the variance in participants' defending behavior.

Level 2 – Class-Level Analysis. In Model 2 and Model 3 we evaluated the impact of between-class variation in students' passive bystanding behavior. Starting from our hypothesis regarding the influence of injunctive norms on individual behavior, in Model 2 the peer and teacher injunctive norms were entered, controlling for individual variables and for the level of victimization in the class (see Table 5.3). Results showed that defending behavior was more frequent in classes with higher

levels of victimization. Moreover, peer injunctive norms, but not teacher injunctive norms, significantly and positively predicted individual defending behavior.

Level-2 variables explained 58.3% of the variability of defending behavior across classes. AIC index showed that this model fitted the data better than Model 1, suggesting the importance of considering Level-2 variables.

In Model 3, the descriptive norm concerning defending behavior was entered. As reported in Table 5.3, peer injunctive norms were no longer significant in this model, whereas class defending behavior was positively associated to individual defending behavior, explaining the 99.9% of the between-classes variation. Also in this case, the AIC index showed that this model was better than the previous one.

Random Level-1 Coefficients. In this last step, we analyzed whether the relation between the two individual predictors (perceived peer and teacher pressure) and defending behavior varied across classes. Results revealed that the χ^2 associated with perceived peer and teacher pressure slopes were not statistically significant ($\chi^2_{(100)} =$ 118.57, *ns* and $\chi^2_{(100)} = 110.15$, *ns*), indicating that the relationship between perceived pressure and defending behavior did not depend on Level-2 variables.

5.5.3.3 Multilevel Analyses for Passive Bystanding Behavior
Level-1 – Student-Level Analysis. As can be seen in Table 5.4, as far as control variables are concerned, bullying behavior was positively related to passive bystanding behavior, which was higher in boys and in older students. With regard to perceived peer and teacher pressure, students who reported less perceived pressure for intervention were more likely to behave as passive bystanders. This effect was stronger for perceived peer pressure than for perceived teacher pressure.

Altogether, individual predictors explained 14.3% of the variance in students' passive bystanding behavior.

Level-2 – Class-Level Analysis. Results showed that, when peer and teacher injunctive norms were entered, controlling for the level of victimization in the class, only peer injunctive norms significantly and negatively predicted individual passive bystanding

Table 5.3. Multilevel modeling predicting defending behavior.

	Model 1					Model 2					Model 3				
	Coefficient	SE	t-ratio	Approx d.f.	p	Coefficient	SE	t-ratio	Approx d.f.	p	Coefficient	SE	t-ratio	Approx d.f.	p
Level-1															
Grade	-.27	.05	-5.35	1796	<.001	-.07	.06	-1.17	1793	.244	.00	.01	.40	1792	.687
Gender	.14	.04	3.82	1796	<.001	.14	.04	3.77	1793	<.001	.13	.04	3.73	1792	<.001
Bullying [a]	-.08	.04	-2.07	1796	.039	-.08	.04	-2.08	1793	.038	-.08	.04	-2.11	1792	.035
Victimization [a]	.15	.03	5.52	1796	<.001	.15	.03	5.53	1793	<.001	.15	.03	5.53	1792	<.001
Perceived teacher pressure [a]	.05	.03	1.95	1796	.051	.05	.03	1.95	1793	.051	.05	.03	1.95	1792	.051
Perceived peer pressure [a]	.19	.03	6.33	1796	<.001	.19	.03	6.33	1793	<.001	.19	.03	6.31	1792	<.001
Level-2															
Class Victimization [b]						.23	.08	2.74	97	.008	.00	.01	.13	96	.894
Peer injunctive norms [b]						.45	.10	4.39	97	.001	.00	.01	.03	96	.979
Teacher injunctive norms [b]						-.06	.10	-.62	97	.536	-.00	.01	-.41	96	.684
Descriptive norm about defending behavior [b]											.99	.01	129.65	96	<.001
AIC	3941.38					3925.84					2773.205				
ICC = .0989															

Note: coefficient estimate from the population-average models with robust standard errors.
 [a] centered around its class mean; [b] centered around its grand mean

behavior, explaining 52.7% of the variability across classes. AIC index showed that this model fitted the data better than Model 1.

In Model 3, descriptive norms concerning passive bystanding behavior were entered. As for defending behavior, also in this analysis peer injunctive norms were no longer significant in this model, whereas class passive bystanding behavior was positively related to individual passive bystanding behavior, explaining 99.9% of the between-classes variation. Also in this case, AIC index showed that this model was better than the previous one.

Random Level-1 Coefficients. Results revealed that only the χ^2 associated with the perceived peer pressure slope was statistically significant ($\chi^2_{(100)} = 135.87$, $p < .05$). We therefore removed the perceived teacher pressure random slope from the model and we tested the hypothesis that the relationship between perceived peer pressure and passive bystanding behavior could be stronger in middle school than in primary school:

Individual level:

$Y_{ij} = \beta_{0j} + \beta_{1j}(\text{gender}) + \beta_{2j}(\text{grade}) + \beta_{3j}(\text{bullying behavior}) + \beta_{4j}(\text{victimization}) + \beta_{5j}(\text{perceived peer pressure}) + \beta_{6j}(\text{perceived teacher pressure}) + \varepsilon_{ij}$

Class level:

$\beta_{0j} = \gamma_{00} + u_{0j}$

$\beta_{1j} = \gamma_{10}$

$\beta_{2j} = \gamma_{20}$

$\beta_{3j} = \gamma_{30}$

$\beta_{4j} = \gamma_{40}$

$\beta_{5j} = \gamma_{50} + \gamma_{51} (\text{school level}) + u_{5j}$

$\beta_{6j} = \gamma_{60}$

The χ^2 associated with the peer pressure slope was still statistically significant ($\chi^2_{(99)} = 132.89$, $p < .05$). School level significantly predicted this regression slope ($\gamma_{51} = -.12$; *SE* = .05; *t*-ratio = -2.51; approx d.f. = 99; $p = .014$). As suggested by Chang (2004), a simple rule of thumb for interpreting this type of results is that when a Level-2 coefficient is of the same sign as the corresponding Level-1 coefficient, the Level-2 predictor serves to strengthen the Level-1 association in the same direction as
118

indicated by the Level-1 coefficient. When the coefficients at the two levels are of opposite signs, a significant Level-2 predictor serves to weaken or to affect the Level-1 association in the direction opposite to that indicated by the Level-1 coefficient. Given this premise, this result indicates that the negative association between perceived peer pressure and individual behavior is stronger (more negative) in middle school classes than in primary school classes.

5.6 Discussion

This study was one of the first to analyze the influence of peer and teacher normative pressure on defending and passive bystanding behavior during bullying episodes. Moreover, to the best of our knowledge, this is the first study to investigate potential contextual correlates of the two behaviors, namely class descriptive norms and class peer and teacher injunctive norms.

5.6.1 Individual characteristics associated with defending and passive bystanding behavior

Consistent with recent studies (e.g., Gini, Albiero, et al., 2008; Menesini & Camodeca, 2008; Pozzoli & Gini, *under review*), our findings show that defending and passive bystanding behaviors differ from each other on several associated characteristics. First, with regard to our control variables, older and more aggressive children were less likely to intervene in favor of the victim of bullying and more likely to remain passively aside. This is consistent with studies reporting that bullying and passivity are perceived as two associated and negative sides of the same phenomenon (Cowie, 2000; Gini, Pozzoli, et al., 2008). Moreover, girls were significantly more likely to defend than were boys. Finally, a positive relation between victimization and defending behavior emerged. This is consistent with findings on participant roles, which show that these two roles are sometimes associated (Salmivalli et al., 1996; Sutton & Smith, 1999). It would be interesting in further studies to investigate whether students who are victims of bullying tend to defend other victims because of,

Table 5.4. Multilevel modeling predicting passive bystanding behavior.

	Model 1					Model 2					Model 3				
	Coefficient	SE	t-ratio	Approx d.f.	p	Coefficient	SE	t-ratio	Approx d.f.	p	Coefficient	SE	t-ratio	Approx d.f.	p
Level-1															
Grade	.12	.04	3.01	1796	.003	.04	.05	.91	1793	.361	-.00	.00	-.38	1792	.701
Gender	-.14	.03	-4.80	1796	<.001	-.13	.03	-4.87	1793	<.001	-.13	.03	-4.74	1792	<.001
Bullying [a]	.27	.04	7.56	1796	<.001	.27	.04	7.56	1793	<.001	.27	.04	7.60	1792	<.001
Victimization [a]	-.03	.02	-1.43	1796	.153	-.03	.02	-1.43	1793	.153	-.03	.02	-1.43	1792	.152
Perceived teacher pressure [a]	-.06	.02	-2.72	1796	.007	-.06	.02	-2.72	1793	.007	-.06	.02	-2.72	1792	.007
Perceived peer pressure [a]	-.22	.03	-8.43	1796	<.001	-.22	.03	-8.43	1793	<.001	-.22	.03	-8.41	1792	<.001
Level-2															
Class Victimization [b]						.12	.07	1.70	97	.092	.00	.01	.16	96	.876
Peer injunctive norms [b]						-.44	.07	-6.15	97	<.001	-.00	.01	-.36	96	.718
Teacher injunctive norms [b]						.06	.09	.64	97	.522	.00	.01	.44	96	.663
Descriptive norm about passive bystanding behavior [b]											.99	.01	125.15	96	<.001
AIC	3270.46					3248.987					3112.180				
ICC = .0593															

Note: coefficient estimate from the population-average models with robust standard errors.
[a] centered around its class mean; [b] centered around its grand mean

for example, a stronger tendency to take their perspective and empathize with them.

One of the main aims of the current study was to test whether perceiving that classmates and teachers expected active intervention in favor of a bullied peer would be associated with participants' helping behavior. Our findings showed that defending behavior was positively predicted by perceived peer normative pressure for intervention, after controlling for the above mentioned individual characteristics. In contrast, participants' perception of classmates' and teachers' expectation for intervention was negatively associated with passive bystanding behavior. These results are consistent with our hypothesis and significantly expands previous findings (Rigby & Johnson, 2006) by demonstrating the association between perceived peer pressure within the class and students' actual behavior, rather than mere intention to intervene. Moreover, consistent with the results of Study 1, described in Chapter 4, and with our hypothesis, the influence of peers' expectations was stronger than that of teachers' expectations in predicting individual behavior.

Finally, as far as passive bystanding behavior is concerned, the results confirmed our hypothesis that the relation between perceived pressure and individual behavior was moderated by a Level-2 variable, namely school level. Indeed, the relation between perceived peer pressure and passive bystanding behavior was stronger (that is, more negative) in middle school than in primary school. This result is consistent with research on peer groups, which shows that peers' influence, for example in terms of adherence to group norms, becomes particularly relevant during early adolescence (e.g., Bukowski, Newcomb, & Hartup, 1996; Juvoven & Galvan, 2008). Moreover, this result extends previous findings, since it suggests that there might be some characteristics of peer groups and school as a relational environment (characterizing the transition from primary to middle-school; see Pellegrini & Long, 2004; Schafer, Korn, Brodbeck, Wolke, & Schulz, 2005) that moderate the relation between perceived peer pressure and individual behavior. Future research are required to investigate which characteristics of these school settings contribute to enhance this relationship.

5.6.2 Classroom norms associated with defending and passive bystanding behavior

The second aim of this study was to investigate the role played by class context on individual behavior, analyzing in particular class injunctive and descriptive norms.

Results revealed that while peer injunctive norms predicted both defending and passive bystanding behavior (positively the first one, negatively the second one), teacher injunctive norms were never associated with individual behavior. This result, in addition to the previous one regarding the role of perceived teacher pressure, underlines the need to explore how teachers are perceived by students. Since teachers spend a lot of time with students, future studies should analyze the possible reasons why they are not perceived by students as significant adults who can affect individual behavior.

Interesting results emerged when the role of descriptive norms was considered. In both cases, the incidence of the behavior in the class positively predicted consistent individual conduct and this effect was so strong that the relation between injunctive peer norms and individual behavior was no longer significant. This result may be interpreted as the fact that what classmates usually do during bullying episodes ("what is") influences individual behavior more than the perception of "what ought to be". In other words, even though injunctive norms affect how individuals are driven to behave, descriptive norms are after all crucial in influencing individual behavior. This result may have different theoretical explanations.

First, it can be interpreted in the light of Latané and Nida's (1981) conceptualization of "audience inhibition" as a major mechanism explaining the bystander effect (Latané & Darley, 1970). Audience inhibition model suggests that people sometimes are restrained from helping because of the presence of other bystanders who are not helping. Applying this concept to bullying, we could hypothesize that a reason why students intervene or not intervene is the behavior of other classmates. For example, during a bullying incident, children might monitor each other and infer that since others don't intervene, what is happening cannot be so serious (Salmivalli, in press). In other terms, descriptive norms may act on people's perception and interpretation of the situation and its potential consequences that, as often happens with bullying, can be rather ambiguous.

Moreover, a class descriptive norm endorsing a particular behavior strengthens the association between this behavior and peer acceptance (Chang, 2004). Since similarities facilitate liking in a group (Levine & Moreland, 1998), the more a behavior is enacted within the class, the more it is endorsed by individuals in the group. Thus, students' choice to conform to a descriptive norm may be a way of "fitting in" and

122

emphasizing one's belonging to the peer group (Garandeau & Cillessen, 2006). Stated otherwise, the influence of descriptive norms on individual behavior might be interpreted as the result of group members' desire to be more accepted by the other classmates. Future studies could further explore this hypothesis by comparing descriptive norms derived from popular or socially dominant group members with those derived from less popular ones and testing whether the former norms have a greater influence than the latter on individual behavior (see Dijkstra, Lindenberg, & Veenstra, 2008; Jonkmann et al., 2009).

Finally, other social-cognitive mechanisms underlying this effect may be "imitation" and "modeling of behavior" (Bandura, 1977, 1986), that is the fact that frequent observations of others' helping behavior (and its related social rewards) within the class might increase the individual student's proneness and ability to enact the same behavior in similar circumstances. Future studies could investigate which individual characteristics can render some children more susceptible than others to be influenced by these mechanisms.

However, this result should be considered with caution because we used the same measure to investigate individual behavior and "class behavior", meaning that the individual score is included in the class score. Even though it is fairly unlikely that a single individual score had a strong influence on the aggregate score, as also suggested by the moderate correlations between individual and class behavior, this result certainly merits further exploration. Future studies should try to replicate these findings by utilizing two different measures for the same behavior (one at the individual level and one at the class level).

In short, consistent with the Child by Environment approach (Ladd, 2003), the results of this study may be regarded as an example of how intra-individual variables and social cues present in the class context, in the form of perceived pressure for intervention, injunctive and descriptive norms, interact to explain bystanders' behavior in bullying during primary and middle-school years. Future studies should extend the analysis of these processes by analyzing other group-level variables (such as group attitudes), in order to better understand under which contextual conditions defending behavior can emerge as a likely behavior.

Chapter 6

GENERAL DISCUSSION

6.1 New findings about non-aggressive bystanders' behavior

The present research project has analyzed the role of several individual and contextual correlates that may lead primary and middle school students to help the victim or to look the other way. Our research hypotheses were based on the conceptual framework derived both from current research on school bullying and from other research fields that described the ecological nature of human behavior (e.g., Bronfenbrenner's theory, 1979; child by environment approach, Ladd, 2003; role of social norms, Cialdini et al., 1991) and that investigated helping and passive bystanding behavior in different contexts (e.g., Latané & Darley, 1970). In short, we conceptualized bullying as "an ecological phenomenon that is established and perpetrated over time as a result of the complex interplay between the individual child, their family, peer group, school and community as well as their culture" (Espelage, 2004, p. 4).

In the first study (Chapter 4) we used structural equation modeling to test a model partially based on Latanè and Darley's (1970) theoretical formulation on bystanders' behavior during emergency situations. In particular, we focused on how the situation is perceived (i.e., attitudes towards bullying), on personal responsibility and on participant skills for intervention (i.e., participants' coping responses as witnesses of bullying). Moreover, the role of perceived parent, peer and teacher normative pressure on onlookers' attitudes, sense of responsibility, choice of coping strategies and actual behavior was analyzed. In short, our findings confirmed that the model derived from that of Latané and Darley is useful to distinguish between defending and passive bystanding behavior in bullying and to better understand which personal correlates can explain these behaviors in both late childhood and early adolescence. Moreover, the final model including perceived parent and peer pressure showed the importance to consider

both individual characteristics and contextual variables, in terms of perceived expectations from significant others, in order to have a more complete picture of bystanders' behavior. In particular, results revealed that holding positive attitudes towards victims led students to feel personal responsibility for intervention and both attitudes and responsibility were positively associated with student's choice to adopt approach coping strategies and negatively with the adoption of distancing strategies. Using approach strategies (i.e., problem solving, seeking social support, internalizing) in front of bullying gets defending behavior more likely to occur, whereas decreases the chance that people behave as passive bystanders. In contrast, passive bystanding was associated with distancing coping strategies.

This model may represent a significant step toward our capacity of understanding bystanders' behavior in bullying situations since, for the first time, we were able to analytically describe part of the complexity of the decisional process that lead to defending behavior. This model was further improved by the inclusion of the role of perceived pressure from significant others. To this respect, it is worth noting that the expectations of peers and parents (but not teachers; see Rigby & Johnson, 2006) significantly predicted both behavior and individual attitudes, responsibility and coping skills. Even though some paths were stronger in one age group than in the other (e.g., in line with our hypothesis peer expectations had a stronger link with attitudes in older students than in younger children), the validity of this model was confirmed for both primary and middle school students. As far as we know, the influence of perceived pressure on individual characteristics have been never investigated in bullying literature. However, our results are consistent with some research in other fields that showed the links between perceived expectations from significant others and personal correlates. For example, Keefe (1994) found that perceived normative pressure of parent and peers toward alcohol use and personal attitudes towards drinking were significantly correlated.

The second study, presented in Chapter 5, confirmed the importance to consider simultaneously individual and contextual variables. To our knowledge, this was the first study to analyze second-level variables potentially able to explain between-class variations in defending and passive bystanding behavior. Indeed, the main aim of this study was to investigate, beside perceived peer and teacher expectations, the role played

126

by class context, in terms of class injunctive and descriptive norms, on individual behavior. Results showed that peer injunctive and descriptive norms positively predicted defending behavior, whereas negatively influenced passive bystanding behavior. Conversely, teacher injunctive norms were never associated with individual behavior.

These two studies were among the first to analyze the possible correlates of defending and passive bystanding behavior among primary and middle school students . The findings, consistent with the Child by Environment approach (Ladd, 2003), contribute to answer to some open questions on non-aggressive bystanders' behavior and, at the same time, give rise to new research questions that are summarized in the following paragraphs.

6.2 Are defending and passive bystanding the opposite sides of the same coin?

By observing the results of the two studies, one may wonder whether defending and passive bystanding are only two opposite sides of a continuum. In fact, in many cases, the two behavior are associated with the same variables, but in the opposite direction. We think that there are legitimate reasons to state that this conclusion would be incorrect.

First, the Participant Role approach (PRA; Salmivalli et al., 1996) conceptualizes the different roles as independent, but obviously correlated, roles, each characterized by its own typical behavioral pattern in bullying situations. The literature has consistently demonstrated the factorial independence of the scales that measures the two behaviors. This was also confirmed in our study by the CFA. Moreover, the PRA suggests different ways in which students who witness an episode of bullying can react: they can give support to the bully (i.e., assisting or reinforcing the bully), they can oppose to the bully and support the victim (the defender), or they can show indifference (passive bystander/outsider). Of course, defenders differ mostly from bullies and their followers. Passive bystanders can be conceptualized (but this is actually what the recent literature is showing and what we are studying) as sharing some characteristics with the defenders that differentiate them from the bully's followers (for ex., being high in empathy; e.g., Gini, Albiero et al., 2008) and, at the same time, not sharing other

characteristics (for ex., social self-efficacy; e.g., Gini, Albiero et al., 2008). These non-shared characteristics are probably those attributes that actually render some children "defenders".

Furthermore, the limited research on this topic shows mixed results, based on the particular variables that are considered each time. In some circumstances, the two behavior show similar (but with opposite signs) relations with the variables studied, as it is, partially, in our study. In other cases, however, defenders and passive bystanders either show different pattern of associations with other variables or don't differ significantly from each other. This is the case, for example, of studies on the role of empathy in bullying (e.g., Gini, Albiero et al., 2008) or on the association between participant roles and aggression (e.g., Camodeca & Goossens, 2005). Also in our study presented in Chapter 4, the paths linking variables with defending and passive bystanding do not support the hypothesis that these two behavior are opposite polarities of the same continuum. For example, path linking distancing coping strategies and behavior was significant for passive bystanding behavior only. Moreover, the strength of the links was often different between defending and passive bystanding behavior. Finally, several studies (e.g., Goossens et al., 2006; Salmivalli et al., 1996) analyzing the sociometric status (in terms of peer acceptance, rejection, isolation, etc.) connected with different roles further support the relative independence of the two participant roles.

6.3 What we may further learn from Latané and Darley's model?

In the first study, presented in Chapter 4, the model proposed by Latané and Darley (1970) was adapted to bullying situations. The findings of the study showed that this step-by-step model is useful to understand the possible reasoning process that anticipate the actual behavior. Moreover, this model may represent an heuristic starting point for new studies on defending and passive bystanding behavior in bullying. For example, in the presented study we focused on three steps that may lead people to help the victim and the results showed that the failure in one of these steps might produce passive bystanding behavior. However, the original model also provides suggestions

concerning the specific mechanisms that could better explain passive bystanding behavior (see Figure 2.1). For example, the bystander effect (i.e., the probability of help is inversely proportional to the number of bystanders, see Latané & Nida, 1982 for a meta-analysis) could be explored in school classes, investigating whether students are more prone to intervene when there are few classmates who witness bullying episodes or whether a bigger group size promotes intervention when bystanders are friends (Levine & Crowther, 2008). Moreover, the social costs and rewards associated with defending and passive bystanding behavior should be investigated, in order to understand to what extent they might explain bystanders' behavior, after accounting for attitudes toward bullying, personal responsibility for intervention and coping strategies.

Finally, social-psychology studies suggested that other variables could affect bystanders' behavior in emergencies situations. For example, not only some people are more likely to help than others, but also some people in need are more likely to be helped than others. For example, males are more likely to help females than other males (Eagley & Crowley, 1986) and attractive people are more likely to receive help (Benson, Karabenick, & Lerner, 1976). Moreover, the sexual orientation of a person in need influence willingness to help (Gore, Tobiasen, & Kayson, 1997; Shaw, Bourough, & Fink, 1994). Even though these studies have been conducted with adults, they suggest that the victim's characteristics may play a role in bystanders' intention to intervene and actual help. Future studies should investigate how onlookers' responses to bullying might vary according to whom is being bullied (e.g., a same vs. opposite sex peer, a friend vs. an acquaintance).

6.4 Differences among sources of influence on individual behavior

In both studies, we investigated how significant others' expectations and behavior can be associated with individual students' behavior. Results of both studies fairly confirmed the hypothesis about the increasing importance of peers among middle school students. In Study 1, indeed, perceived peer expectations influenced personal attitudes more strongly in older than in younger children. Similarly, in Study 2 the relation between perceived peer pressure and passive bystanding behavior was stronger in middle school than in primary school. These results are consistent with past

research on peer groups, which shows that peers' influence becomes particularly relevant during early adolescence (e.g., Bukowski, Newcomb, & Hartup, 1996; Juvoven & Galvan, 2008) and add evidence about the effect of peer expectation on those characteristics which precede actual behavior (e.g., attitudes).

As far as parent pressure is concerned, results revealed that its influence on individual behavior and characteristics is fairly similar in the two age groups. So, contrary to our expectations, results did not confirm the hypothesis that increasing susceptibility to peer influence would be associated with a decreasing susceptibility to parental influence (Berndt, 1979; Steinberg & Silverberg, 1986) during the middle school years. As mentioned in Chapter 4, it would be interesting to investigate if the relation between parent expectations and children's behavior during bullying episodes remains stable also during adolescence.

Finally, a somewhat surprising result emerged concerning the effects of perceived pressure from teachers and the related injunctive norms. Teachers are usually considered as relevant members of the class that (positively or negatively) influence its environment. However, through different statistical methods, the two studies failed to find any influence of teachers on students' behavior or personal characteristics, such as attitudes or responsibility for intervention, neither for middle school nor for primary school students. To some extent, this is an unexpected result (but see Rigby & Johnson, 2006) and further research is needed in order to understand why students seem not to perceived their teachers as significant models. This is even more important because teachers spend a lot of time with students in class and their role could be really important in the management of desirable and undesirable behavior.

6.5 Limitations and future directions

All the new findings notwithstanding, additional research is desirable to solve the many questions left unanswered by the present studies. Among others, we need to further explore the role of teachers in influencing students' behavior, the specific processes that lead to passive bystanding behavior (e.g., bystander effect), and the relation between bystanders' responses to bullying and the personal characteristics of

whom is being bullied. Moreover, some limitations of the current studies must be acknowledged.

First, the cross-sectional nature of the research design did not allow us to describe causal pathways in the relations between our study variables and participants' behaviors in bullying. For example, even though structural equation modeling allow to test statistically the validity of a model with specific path directions, other possible associations could be hypothesized (e.g., coping strategies are likely to influence students' behavior, but frequent experience with helping behavior might help them to develop more effective strategies of intervention in bullying situations). To overcome this limitation, longitudinal studies are required.

Second, the studies relied only on self-report data. This may be a problem especially for the potential presence of social desirability, so that some students may be reluctant to admit positive attitudes toward bullying or their involvement in bullying as passive bystanders. Moreover, we should be cautious when comparing the current findings with previous works that assessed defending and bystanding through peer nominations. Future research should consider other informants (e.g., teachers, peers, parents) in order to investigate students' behavior and characteristics. This choice could give more strength and generalizability to our results. To this aim, future studies should also involve students of different ages, both below 4th grade and above middle-school years, as well as participants from different ethnic groups and cultural backgrounds.

Finally, we are aware that there is a complex pattern of relations between personal characteristics, contextual variables and individual behavior and that other personal characteristics must be considered in order to explain defending or, conversely, passive bystanding behavior. For example, in our studies, the emotional area has not been considered. It would be surely interesting to investigate how emotions intervene in influencing the decision to help or to looking the other way.

Despite these limitations, the findings presented in this work add some important knowledge to the so-far limited literature about students not directly involved in bully/victim dynamics. Indeed, they demonstrate that active defending and passive bystanding behavior cannot be sufficiently explained in terms of strictly individual variables and that we need to consider the influence of the social context, as well as the

reciprocal interactions between personal and contextual correlates, on individual behavior.

6.6 Implication for interventions

In our opinion, findings from the current studies may have some important implications for interventions at school, as it was partially anticipated in Paragraph 2.3.1. First of all, results of our studies evidenced the importance of recognizing the significant role of the peer group in bullying and indicated that, consistent with a more ecologically valid approach to the phenomenon, anti-bullying intervention should address the individuals involved, their peer group, and the whole school community (Espelage & Swearer, 2004). The peer ecology approach focuses on all children and not just on those who are bullies or victims (Gini, Pozzoli et al., 2008).

Several studies have shown that passive bystanders trained in the role of peer helpers can act as a resource for victimized peers (Cowie & Sharp, 1996; Kärnä et al., in press). By better understanding which characteristics distinguish defenders from passive bystanders, it could be possible to train observers to take action against bullying in effective ways. This may help passive bystanders to ''become'' active defenders. As suggested by Gini, Albiero and colleagues (2008), for example, assertiveness training (e.g., through role-play exercises) that is usually used with victims could be useful especially for passive bystanders. Indeed, assertive strategies can help students to resist group pressure and intervene even when this is not what other pupils in the class expect. Moreover, the association between less adaptive coping styles (i.e., avoidant strategies, see Study 1) and passive bystanding may suggest that teaching problem-solving strategies to observers and increasing self-efficacy for defending could further improve the likelihood of effective intervention. Other useful strategies at the group-level can be the use of curricular activities during regular lessons aimed at raising students' awareness about bullying and about their own role in the class dynamics, at progressively changing their attitudes towards this phenomenon and their understanding of the victim's perspective. Finally, the moral component of active help, for example in terms of personal responsibility for intervention (see also Gini, 2006b; Malti, Gasser, & Buchmann, 2009; Malti, Gummerun, Keller, & Buchmann, 2009;

Menesini & Camodeca, 2008), should be more explicitly addressed with specific activities within broader interventions.

Another important aspect concerns the likelihood of tackling bullying behavior. Zero-tolerance policies, as well as other school-based programs that strive against bullying by awarding negative sanctions against aggressive behaviors may not be effective in that they do not address the apparent social success of those who bully. Furthermore, bullying others may receive some peer support when students perceive an interpersonal or inter-group conflict within school as a struggle for social power and dominance (Gini, 2006a, 2007). In this respect, activities within an anti-bullying intervention should focus on social processes such as identification with the peer group and development of positive group norms and, in particular, on modeling of positive behavior, cooperative activities, and empathy. Moreover, peer support programs such as befriending and peer mediation have been shown to be efficacious in reducing the incidence of bullying at school, in enhancing children's responsibility, and in increasing the likelihood that the silent majority intervene to help a victimized classmate (Cowie et al., 2002; Gini, 2004; Menesini et al., 2003a). Finally, the findings from the current studies suggest that intervention programs should incorporate a discussion with students about the pressure they may experience from peers, parents and teachers to behave as defenders, passive bystanders or other roles.

In conclusion, we believe that the complex pattern of results presented in previous chapters about defending and passive bystanding behavior reflects the complexity and multidimensionality of the phenomenon. These findings, in particular, evidenced the importance of studying how individual and contextual variables influence those students who choose to defend the victim and those students who prefer looking the other way. We hope that this work could stimulate further research in this area to allow researchers, school psychologists, and educators developing and implementing more effective anti-bullying interventions able to protect victimized children, and all other children at school, from the potential serious consequences following bullying.

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