Does Empathy Predict Adolescents’ Bullying and Defending Behavior?

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Abstract

Through structural equation modeling, the present study tested a path of relations in which different levels of empathic responsiveness were posited to be differently associated to bullying and defending behavior. Three hundred and eighteen Italian adolescents (142 girls and 176 boys; mean age = 13.2 years) completed the Davis’s Interpersonal Reactivity Index (Davis, 1983) for empathy and the Participant role scales (Salmivalli et al., 1996) for bullying and defending behavior. The results revealed that the model fitted the data adequately, but only in the case of boys. As hypothesized, low levels of empathic responsiveness were associated to students’ involvement in bullying others. In contrast, empathy was positively associated with actively helping victimized schoolmates. However, the estimates algorithm did not reach convergence with girls’ data. The current findings confirm and extend the literature on the relation between empathy, prosociality and aggressive behavior. Educational implications are also discussed.

Key words: bullying, prosocial behavior, empathy, participant role approach, structural equation modeling
Does empathy predict adolescents’ bullying and defending behavior?

Violence between peers in schools is a widespread phenomenon that worries psychologists, teachers and families in many countries around the world (e.g., Baldry, 2004; Gini, 2004, 2006; Rigby & Slee, 1993; Scheithauer, Hayer, Petermann, & Jugert, 2006; Smith et al., 1999 for a review). One of the most pervasive forms of school violence is bullying, which has been defined as a repeated aggressive behavior perpetrated by a bully, or a group of bullies, who systematically victimizes a weaker peer (Olweus, 1993; Perry, Williard, & Perry, 1990). Moreover, school bullying is characterized by intentionality and can be either direct (physical bullying or verbal harassment) or indirect (social exclusion, malicious rumor spreading, withdrawal of friendship, etc.) (Björkqvist, 1994; Crick & Grotpeter, 1995; Olweus, 1993).

The present study focused on a specific characteristic that has been proposed as a possible moderator of aggressive and social behavior: empathic responsiveness. Drawing on the literature on this particular topic, which will be discussed below, we tested the hypothesis of a negative relation between empathy and bullying behavior in Italian adolescents. Moreover, since the most recent literature on school bullying has stressed the social nature of bullying, following the participant role approach (Salmivalli et al., 1996), we considered also the most prosocial students in the peer group, that is to say those who often behave as defenders of their victimized schoolmates (e.g., Craig, Pepler, & Atlas, 2000; Pepler & Craig, 1995), and tested the hypothesis of a positive relation between their empathic responsiveness and their helping behavior.
Empathy, social and aggressive behavior

Empathy is generally defined as sharing another person’s emotional state (Eisenberg & Strayer, 1987). Current approaches describe dispositional empathy as a multidimensional construct that has both cognitive and affective/emotional components (Davis, 1994). The cognitive component (in particular, perspective taking) reflects the ability to identify with and understand other people’s perspective, whereas the emotional component (in particular, empathic concern) is characterized by the tendency to experience feelings of concern or sympathy toward others (Davis, 1994).

At first, Feshbach (1978; 1987) stressed the multidimensional nature of empathy. In particular, both the cognitive and the emotional components of empathy coexist in her model, but the cognitive abilities (i.e., the ability to recognize others’ emotions and the role taking ability) are considered as prerequisites of empathy. In other words, according to Feshbach, being able to recognize the emotions of another individual and to take his/her own point of view is necessary, but not sufficient, to empathize with others’ feelings. For example, we could make the case of an individual who has good social-cognitive abilities in terms of, but not limited to, perspective taking or theory of mind (e.g., Gini, in press; Sutton & Keough, 2000), but lacks the emotional ability to participate in others’ emotion.

Following the important contribution given by Feshbach to the literature on empathy, other authors have proposed a multidimensional approach to the study of empathy (e.g., Davis, 1994; Hoffman, 2001; Strayer, 1993; Strayer &
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Roberts, 1997). Despite some differences between their models, all those authors agree that the different components of empathy can be considered and measured separately, but they have to be put together and considered jointly in order to understand a complex and articulated construct such as empathy is (Hoffman, 2001).

The relation between empathy and aggressive behavior has been extensively studied in childhood and adolescence (Miller & Eisenberg, 1988). Empathic responsiveness, in fact, usually induces individuals to moderate their aggressive behavior, in that highly empathic individuals are able to emotionally anticipate the negative outcomes produced by their own conduct towards another person (Hoffman, 2000). Recently, a meta-analysis by Jolliffe and Farrington (2004) has summarized these results, confirming the positive relation between antisocial behaviors and low levels of empathy. This association is stronger in adolescents and young adults. Furthermore, high levels of empathic responsiveness enhance prosocial behavior (e.g., Davis, 1994; Eisenberg & Fabes, 1998; Hoffman, 2001) and are positively related to a decrease in aggressive or other externalizing behaviors (e.g., Björkqvist, Österman, & Kaukiainen, 2000; Kaukiainen et al., 1999; Mehrabian, 1997; Miller & Eisenberg, 1988). Kaukiainen et al. (1999) found that higher levels of perspective taking were associated with low physical, verbal and indirect aggression in preadolescents.

Specifically, empathy can inhibit or reduce aggressive behavior through two different moderating mechanisms. The first is related to the ‘cognitive’ component of empathy and acts through the individual’s role taking ability
Bullying and Empathy (Davis, 1994): the more a person is able to appreciate other people’s perspective, the more he or she can understand and tolerate the position of others, thus making the adoption of aggressive behavior less likely (Feshbach, 1978). More precisely, role-taking ability should allow a detached analysis of other people’s reasons and motivations, so that their actions can be better understood and accepted. The second mechanism, instead, deals with the ‘affective’ components of empathy, through which aggressors can experience the victims’ pain and inhibit their own aggressive behavior in order to avoid the emotional stress caused by the situation or reduce the victims’ suffering (Batson et al., 1989; Eisenberg & Fabes, 1998). Both cognitive (Kaukiainen et al., 1999) and emotional (Albiero & Lo Coco, 2001; Mehrabian, 1997) components of empathy mitigate aggressive behavior and violence.

Bullying and Empathy

The traditional stereotype of bullies describes these children as not academically bright, anxious, insecure, and prone to resort to violence in order to solve conflicts, this being the only response mechanism available to them (Olweus, 1993). Moreover, other potential deficiencies have been identified in their social information-processing (e.g., Crick & Dodge, 1999) and social problem-solving (e.g., Crick & Dodge, 1994). However, Sutton, Smith and Swettenham (1999) argued that at least some bullies are socially competent and have superior ‘theory of mind’ skills. These children have good levels of social intelligence and are well able to understand others’ mental states, even though
their theory of mind seems to be purely instrumental and used in a Machiavellian way for personal advantages (Andreou, 2004, 2006; Sutton & Keogh, 2000).

What bullies may lack, therefore, are empathic skills or, in other words, the ability to appreciate the emotional consequences of their behaviors on other people’s feelings and share and empathize with the feelings of others (Arsenio & Lemerise, 2001; Eisenberg & Fabes, 1998). Other researchers also agree with the idea of bullies as individuals characterized by a kind of ‘cold cognition’ who fail to understand others’ feelings (e.g., Björkqvist et al., 2000; Randall, 1997) and have suggested that if a victim displays distress, this only serves to reinforce the bullies’ behavior (Davis, 1994). In other words, according to Sutton et al.’s (1999) view of the ‘skilled manipulator’, bullies understand others’ emotions, but they do not share them, as they are, being characterized by a sort of ‘theory of nasty minds’.

Notwithstanding this recent emphasis on bullies’ lack of empathy, there has been very little examination of these children’s empathic responsiveness. Endresen and Olweus (2001), for example, have studied the relation between empathy, measured through an ad hoc developed short scale, and bullying behavior, self-reported by Norwegian preadolescents. The authors found a negative weak relation between empathy and bullying (Pearson correlation coefficient = -0.15). A larger negative correlation was found between empathy and positive attitudes to bullying ($r = -0.40$). A possible limitation of this study, however, was the use of self-report measures for all constructs, especially for active bullying behavior, which might have led to social desirability biases. A
different methodology was employed by Warden and Mackinnon (2003), who compared empathic responsiveness of peer-nominated bullies, victims and prosocial children and found that prosocial children were more empathic than bullies. However, when gender was covaried out, the difference between bullies and prosocial children disappeared. Interestingly, the victim group did not differ significantly from other pupils on measures of empathy.

The present study

The aim of the present work was to study the relation between empathy and peer-evaluated bullying and helping behavior, measured through the participant role scales (Salmivalli et al., 1996), in a sample of Italian adolescents. The roles we were interested in were bullies and their followers on the one side, and defenders on the other. The first two roles were assumed to share high levels of aggression and low levels of empathy. The last role was assumed to be little aggressive and highly empathic. Drawing on the previous literature on the influences of different levels of empathic responsiveness on aggressive and prosocial behavior (e.g., Eisenberg & Fabes, 1998; Hoffman, 2001; Jolliffe & Farrington, 2004), we aimed to test a model that posits a negative path from empathy to bullying behavior and predicts that higher levels of empathy are related to lower engagement in bullying behavior and to higher levels of students’ helping behavior towards victimized schoolmates.

In their study on empathy and bullying, Endresen and Olweus (2001) used self-report measures to assess bullying behavior. However, due to the nature of the topic under study, this may represent a problem, because participants’ self-
evaluating bullying behavior may be biased by their level of empathy: lower levels of empathic responsiveness might give rise to lower abilities to recognize one’s own aggressive acts towards others. In our study students’ pro-bullying and helping behaviors have been assessed through peer nomination, which represents a valid and reliable method to evaluate social behavior within the peer-group context, because it benefits from the independent judgments of all classmates (e.g., Huesmann, Eron, Guerra, & Crawshaw, 1994; Perry, Kusel, & Perry, 1988).

To this respect, it is important to note that, in the growing literature on participant roles, two different approaches have been used. A first approach considers participant roles as typologies, that is, children are classified into different groups (i.e., bullies, victims, defenders, etc.) accordingly to their highest participant role score. A second way to deal with nominations in participant roles is to consider them as dimensions, that is, continuous variables along which children’s typical behavior is measured. Researchers have frequently adopted both approaches within the same empirical work (e.g., Gini, in press; Salmivalli et al., 1996) or, alternatively, have used participant roles scores as independent dimensions only (e.g., Salmivalli & Voeten, 2004). Coherently with this second line of research, in the current study, we adopted a dimensional approach and participant role scores were used as a continuous measure rather than a categorical one.

As discussed above, most theoretical models about empathy adopted a multidimensional approach to the study of this construct (Davis, 1994; Hoffman, 2001; Strayer, 1993), whereas, as far as the assessment of empathy through the
IRI is concerned, two different positions emerged in the literature. Some authors have assessed the different dimensions of empathy separately (i.e., a separate score for each subscale) (e.g., Davis, 1983; 1994), whereas in other recent studies (e.g., Burkard & Knox, 2004; Burke, 2001; Moriarty et al., 2001; Webster, 2002) a global empathy index has been calculated (i.e., the summation of all subscale scores). The latter choice is consistent with the second-order hierarchical model validated by Cliffordson (2001, 2002), who argued that empathy consists of a single global dimension, in which empathic concern plays the central role.

Consistent with this second line of research, in the present study we used a single index calculated as the sum of the scores measuring the two dimensions traditionally considered most relevant for empathy (i.e., perspective taking and empathic concern). Besides, the model used in our study for data analysis allowed us to verify whether empathy, measured through a global index, is related to bullying behavior and, at the same time, to establish (through the standardized coefficients) the role each component (the cognitive and the affective) has in the definition of empathy in the model.

Finally, we wanted to test for possible gender differences in the participant role scales and in empathy. Consistent with the literature about participant roles in bullying (e.g., Salmivalli et al., 1996; Sutton & Smith, 1999), we expected that boys would be nominated in the pro-bullying scales more often that girls. In contrast, girls were expected to be nominated as defenders more often than boys. Gender differences were also expected in the levels of participants’ empathic responsiveness, because the literature on empathy (see Davis, 1994; Lennon &
Eisenberg, 1987) usually describes girls as more empathic than boys. Given such expected gender differences in all the measures used in the study, it was reasonable to hypothesize that also the relationships between empathy and bullying or defending tested in our model could be different for boys and girls. To test this hypothesis we computed the SEM for boys and girls, separately.

Method

Participants

A total of 318 Italian adolescents (142 girls and 176 boys) participated in the study. They were attending 7th and 8th grades (2nd and 3rd grades in Italian middle schools) in a middle school situated in a middle-sized town in the North of Italy. A total of 14 school classes participated (mean class size = 23 students, range: 20-25). The school serves a low-middle class population. At the time of the study, the mean age of the sample was 13.2 years (SD = 0.53, range: 12-14). In terms of racial/ethnic background, the sample was all Caucasian (100%). All participants received school and parental permission to participate prior to the collection of the data. None of the parents denied permission for their children to participate. Few participants (0.4%) were excluded from the analyses due to missing data in their questionnaires.

Measures

Participant Role

The participant role scales (Salmivalli et al., 1996) were used to collect peer nominations. Our participants were asked to nominate up to five classmates who fitted each of the behavioral descriptions of bullying situations that compose
the questionnaire. For each nominated classmate, participants were also asked to indicate whether he or she “sometimes” (scored as 1) or “often” (scored as 2) shows that behavior. The nominations each person received per item were summed and divided by the number of nominators, yielding a score from (0) not nominated by any of the nominators to (2) nominated as “often” by every nominator. Following this, scores were summed across items to yield an overall bullying/defending score per person.

In their original work, Salmivalli and colleagues (1996) identified three different aggressive roles: the bully (4 items, e.g.: “Starts bullying”), the bully’s assistant (2 items, e.g.: “Helps the bully, maybe by catching or holding the victim”) and the bully’s reinforcer (5 items, e.g.: “Laughs at people getting bullied”). However, several studies in different countries have shown high levels of intercorrelation among the three aggressive scales and a general pro-bullying factor consistently emerged (e.g., Menesini et al., 2003; Salmivalli, Lappalainen, & Lagerspetz, 1998; Sutton & Smith, 1999). This factor was also found in our sample. For this reason, in the present study we created a single pro-bullying scale, merging the items of the three aggressive scales (inter-correlations among the three scales ranged from 0.69 to 0.87). In contrast, the five items for defender behaviors (e.g., “Stick up for the victim”) loaded on an independent factor, which was kept as a separate scale. Reliability coefficients for the two scales obtained in our sample were 0.94 for the pro-bullying scale and 0.76 for the defender scale.

*Interpersonal Reactivity Index*
The IRI (Davis, 1980, 1983). The 28-item questionnaire consists of four 7-item subscales (Fantasy-empathy, Perspective Taking, Empathic Concern, Personal distress), measuring separate but intercorrelated components of empathy. As suggested by Burkard and Knox (2004), a review of the subscale items indicates that the Empathic Concern and the Perspective Taking subscales correspond more directly with the conceptual definition of empathy described above. In contrast, items from the Fantasy and Personal Distress subscales do not seem to assess conceptually shared and recognized aspects of empathy. For this reason and consistent with other studies (e.g., Burkard & Knox, 2004), in the current study we used only two subscales of the IRI: (a) the Perspective Taking (PT) subscale was used to assess the cognitive component of empathy, that is the ability to adopt the viewpoint of others in everyday life (e.g., “I sometimes try to understand my friends better by imagining how things look from their perspective”); (b) the Empathic Concern (EC) subscale was used to measure the emotional aspect of empathy, since it assesses feelings of sympathy and concern for the less fortunate (e.g., “I often have tender, concerned feelings for people less fortunate than myself”). Participants were asked to indicate how well each item described them on a 5-point scale, from 1 (not at all) to 5 (extremely).

The IRI was validated on the Italian population by Albiero, Ingoglia and Lo Coco (2006), who confirmed the factorial model hypothesized by Davis and found sufficient reliability coefficients for all the scales (range: 0.63-0.75). In the present study similar coefficients were found (0.69 and 0.73 for the PT and the EC respectively).
Procedure

The measures were administered in a counterbalanced order at class-level by two researchers not acquainted with the students. Before administration of the Participant role scales, participants were provided with the definition of bullying behavior used in previous Italian studies on school bullying (Gini, in press): “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”.

Results

Descriptive Results

First, we analyzed gender differences in the two participant role scales and the two IRI subscales. Boys ($M = 0.36, SD = .35$) scored higher than girls ($M = 0.10, SD = .13$) in the pro-bullying scale, $t(316) = 8.10, p < .001$. In contrast, girls’ scores ($M = 0.91, SD = .57$) in the defender scale were higher than boys’ scores ($M = 0.35, SD = .35$), $t(316) = 10.80, p < .001$. Gender differences were also found for the IRI subscales. Girls ($M = 3.30, SD = .55$) reported higher perspective taking scores than boys ($M = 2.94, SD = .51$), $t(316) = 5.98, p < .001$. 
The same result was found for the empathic concern subscale, where girls ($M = 3.66, SD = .53$) scored higher than boys ($M = 3.32, SD = .52$), $t(316) = 5.92, p < .001$.

In Table 1, the means and standard deviations for all variables and the intercorrelation coefficients are reported for boys and for girls, separately. Girls correlations are in parenthesis. For both groups of participants, the two peer-evaluated behavioral measures (pro-bullying and defending behavior scales) were not significantly correlated with each other. This confirmed the independency of the two constructs.

Within the male group, a significant negative association between pro-bullying scores and empathy emerged for the perspective-taking subscale ($r = -0.19, N = 176, p < .01$) and the empathic concern subscale ($r = -0.28, N = 176, p < .001$). In contrast, a positive association emerged between the latter and the defender scale ($r = 0.22, p < .01$). In the case of girls, instead, lower coefficients of correlations were found and only two correlation indexes were significant at the 5% level. For both groups, perspective taking and empathic concern were moderately intercorrelated with each other ($r = .43$ and $r = .40$, for boys and girls respectively). In each cell, boys’ and girls’ correlation coefficients were compared. This comparison yielded two significant results: (a) the correlation between pro-bullying scores and perspective taking scores, and (b) the correlation between pro-bullying scores and empathic concern scores were significantly different ($p < .01$, Bonferroni corrected) between boys and girls.

--- Table 1 ---
The SEM analysis

The posited structural model was tested on the covariance matrix for boys and girls separately using the LISREL 8.54 Program (Jöreskog & Sörbom, 1993). The Maximum Likelihood (ML) method of estimation was used. Various fit indices were used to assess the fit of the model: the $\chi^2$, an index dependent on sample size that measures the extent to which the overall model predicts the observed covariance; 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; 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 and performs well both on large and small samples. Finally, the RMSEA (Root Mean Square Error of Approximation) was also used. This is an absolute fit index measuring approximation of parameter estimates to true parameters in the population. This index explicitly takes the parsimony of the model into account (i.e., the number of parameters fixed versus the number of parameters free to be estimated).

To evaluate the fit of the model, the following criteria are commonly considered. If the model is correct, the chi-squared test statistic should be non-significant. A GFI, an AGFI and a CFI above .90 indicate a close fit of the model to the data (Hu & Bentler, 1995). A RMSEA of .05 or less also indicates a close fit (Browne & Cudeck, 1993). Moreover, since the validity of the likelihood ratio chi-square test is based in part upon the assumption of multivariate normality of
the observed data, the issue of normality was considered. For this purpose, Mardia’s measure of relative multivariate kurtosis (MK) was obtained via the PRELIS program (Jöreskog & Sörbom, 1993). For the present sample the MK was 1.272, a value that implies non-significant departure from normality (-1.96 < \( z \) < 1.96) (Mardia, 1970).

**Testing the model**

The scores for the two Participant role behaviors were included in the structural equation modeling as observed dependents. The two IRI subscales were introduced as observed independents. Empathy was the latent variable.

Two structural equation modeling analyses were performed in order to test the hypothesized model in the male and the female group. In the case of boys, the model provided an excellent fit to the data: a non-significant \( \chi^2 \) (2, \( n = 176 \)) = 1.17, \( p = .56 \), \( \chi^2/\text{d.f.} \leq 2 \); GFI = 1.00, AGFI = .98, CFI = 1.00, RMSEA < .001 (90% confidence interval: 0.00 – 0.13) were obtained. In this model, empathic responsiveness was positively associated to defending behavior (standardized coefficient = 0.29) and negatively associated to pro-bullying behavior (-0.37). Defending and pro-bullying behaviors were not significantly intercorrelated (Figure 1). The whole model accounted for 14% of the variance for pro-bullying behavior and 9% of the variance for defending behavior.

--- Figure 1 about here ---

After fitting the theoretical model on boys, we tested the same model on girls. However, in this case the estimates algorithm did not reach convergence. This result suggests that the model fits well with boys, whereas it cannot be
validated with girls probably because of the very low inter-correlations among the variables involved.

Since pro-bullying and defending scores were non-normally distributed, in both boys and girls, we also estimated the model using WLS (Generally Weighted Least-Squares), an alternative method of estimation suggested by Jöreskog & Sörbom (1993). Findings presented in the text were confirmed. The estimates algorithm reached convergence only in boys. In this group, both parameters and fit indexes were almost equal to those obtained with the ML method.

Discussion

The aim of our study was to test a model that described the different relations between empathic responsiveness and participation in bullying and defending behavior in a sample of Italian adolescents. Our findings substantially corroborate the assumptions on which we based the study (Arsenio & Lemerise, 2001; Eisenberg & Fabes, 1998) and lend support to the validity of the conceptual model tested, at least in the male sample, in that boys’ bullying behavior was significantly associated with low levels of empathic responsiveness. In this respect, it is worth noting that the empathy-aggression negative relation that emerged in our study was slightly higher than has been found in the literature (e.g., Endresen & Olweus, 2001; Miller & Eisenberg, 1988). A possible reason for this stronger relation may be due to the fact that this finding refers to a group of adolescent boys only. Another possible explanation may be ascribed to the use of a peer-nomination questionnaire to assess bullying behavior, instead of the more frequently used self-report measures.
In contrast, as expected the prosocial behavior of victim defenders was positively associated to high levels of empathy. Those students who stand up for the victim and usually intervene in a bullying situation to defend their victimized schoolmates not only are competent in social cognition, i.e., theory of mind and social information processing (e.g., Camodeca & Goossens, 2005), or moral cognition (Gini, in press), but also have high levels of empathic responsiveness. This result is consistent with the literature on the development of prosocial behavior, which has repeatedly found a positive relation between empathy and helping behavior from infancy to adolescence (Davis, 1994; Eisenberg & Fabes, 1998; Hoffman, 2001).

The fact that positive relation between empathy and helping behavior clearly emerged in a sample of boys is also noteworthy, since it contributes to some extent to the debate on the role of empathic responsiveness in prosocial behavior. Some authors (Warden & Mckinnon, 2003), in fact, have noted that a common problem in the studies in this field is the confounding role of participants’ gender, since girls are usually both more empathic and more prosocial than boys. Those authors hypothesize that empathy may guide prosocial behavior among girls but not among boys and that “prosocial boys are no more empathic than boys who are bullies” (Warden & Mckinnon, 2003, p.381). However, our findings seem to disconfirm this hypothesis, in that among adolescent boys the level of empathic responsiveness emerged to be positively associated to the helping behavior of defenders. This does not mean that being highly empathic is a sufficient requisite for prosocial behavior; it simply means
that male prosocial individuals are characterized by the same high levels of empathy as prosocial girls usually are.

More generally, we are aware that empathy is not the only dispositional trait that could predict the development of bullying and prosocial behavior. Several personal, educational and social aspects must also be considered in order to understand the pathways that bring children to assume different positive and negative roles with peers. Nevertheless, the results of the present study indicate that empathy may play an important role in this issue.

The application of the structural equation modeling (SEM), which represents a more powerful alternative to multiple regression, to the study of this phenomenon also proved effective. The SEM approach, in fact, allows testing models overall rather than estimating coefficients individually, and testing models with multiple dependents. Furthermore, avoiding the use of self-report measures in both tasks by using different types of measures in the model (i.e., a self-report measure to assess empathy and peer nominations for the participant role behaviors) enhanced the validity of the model and allowed us to be more confident in interpreting our findings. The relations found in the structural model cannot be due to a general self-serving attribution bias in the case of defenders or a lack of awareness about their behavior in the case of bullies.

However, some limitations have to be acknowledged. The fact that the model was validated only with a sample of Italian adolescent boys limits the generalizability of the present findings to the male adolescent population. Our current data do not allow us to clearly understand why this was the case. Some
tentative explanations, however, may provide possible directions for future studies.

In the broad literature on empathy, several studies found a stronger negative relation between empathy and aggressive behavior for boys than for girls. Miller and Eisenberg (1988), in their meta-analytic review of the literature on this topic, found a negative relation between empathy and aggression in both genders, with the association more consistent in males. Furthermore, in a study by Kaukiainen and colleagues (1999), empathy negatively correlated with direct but not with indirect forms of aggression. Finally, Albiero and Lo Coco (2001) have studied the relation between empathy and aggression in Italian children aged 6 to 10 years. Their results showed a negative association only for boys.

From a methodological point of view, the way in which the participant role scales were devised may have partly contributed to our results. Those scales, similarly to other peer-nomination instruments, measure direct forms of bullying, which are more typical of boys than of girls, and therefore the distribution of roles scores is often different between girls and boys (Björkqvist, 1994). In other words, it is often difficult to obtain satisfactory distributions of scores for probullying behaviors in girls. This is a recognized limitation of this type of questionnaire due to different conceptual and methodological reasons, the analysis of which goes beyond the scope of the present paper (see Salmivalli et al., 1996). In our study, this problem may have had a negative impact on the estimation of the model with girls’ data. In future research, we will attempt to replicate our study with a larger sample of girls and to use different instruments to measure
bullying behavior, which allow to collect information on relational or social forms of bullying.

Furthermore, the use of different scales for the measurement of empathy will be necessary. The validity of the IRI, in fact, has been recently criticized (Jolliffe & Farrington, in press). According to those authors, the IRI does not really measure cognitive empathy (i.e., the ability to understand others’ emotions) but simply perspective taking (i.e., the broad ability to take another’s perspective). In our case, having a valid measure of cognitive empathy is essential for understanding the relationship between empathy and bullying, since both affective and cognitive empathy would be expected to provide a unique contribution to this relationship. A valid alternative to the IRI is the Basic Empathy Scale (BES) (Jolliffe & Farrington, in press), which already proved to be effective in studying empathy in bullies (Jolliffe & Farrington, 2006). In future research, we will seek to replicate and extend the current findings by assessing the relation between bullying behavior and empathy, as measured by the BES, which is now under validation with the Italian population.

Finally, the question of why defenders do intervene in a bullying situation cannot be answered by simply demonstrating that defenders are higher in empathy than their schoolmates. We need to improve our knowledge on this group of children and to better understand what differentiates them from those schoolmates who do not stick up for the victim and stand aside, that is the outsiders. In future research, therefore, we aim at analyzing students’ personal characteristics, such as
self-esteem and self-efficacy beliefs, that may be predictive of active defending or passive bystanding behavior.

Despite these limitations, the present study may have some important implications for anti-bullying school projects. In particular, by demonstrating that empathy is positively associated to defending behavior and negatively associated to pro-bullying behavior, our findings suggest the relevance of integrating the traditional curricular model, typically used in anti-bullying intervention programs (e.g., Gini, 2004; Sharp & Smith, 1994), with specific activities about emotions and socialization in order to foster students’ emotional intelligence. We suggest that, through the methodology used by teachers in these projects (literary and video stimuli, role-play and group discussions), the themes of personal experiences, feelings of bullies and victims, moral thoughts of bystanders should be introduced in classroom activities.
References


### Table 1

**Descriptive statistics and intercorrelations for all measures**

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<td><strong>2. Defender scale</strong></td>
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<td><strong>3. Perspective taking</strong></td>
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<td><strong>4. Empathic concern</strong></td>
<td>-.276 *** (.063) **</td>
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**Boys: M (SD)**

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<tbody>
<tr>
<td><strong>1. Pro-bullying scale</strong></td>
<td>0.36 (.35)</td>
<td>0.35 (.35)</td>
<td>2.94 (.51)</td>
<td>3.32 (.52)</td>
</tr>
<tr>
<td><strong>2. Defender scale</strong></td>
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<tr>
<td><strong>3. Perspective taking</strong></td>
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<td><strong>4. Empathic concern</strong></td>
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**Girls: M (SD)**

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<tbody>
<tr>
<td><strong>1. Pro-bullying scale</strong></td>
<td>0.10 (.13)</td>
<td>0.91 (.57)</td>
<td>3.30 (.55)</td>
<td>3.66 (.53)</td>
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<tr>
<td><strong>2. Defender scale</strong></td>
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Notes: in each cell, the first correlation coefficient refers to boys and the correlation within parenthesis refers to girls

* * p<.05, **p < .01, ***p < .001

In each cell, correlations in italics significantly differ from each other at .01 level (Bonferroni correction)
Figure Caption

*Figure 1*. Parameter estimates of the verified model.
Note: The numbers refer to standardized structural coefficients. All coefficients are significantly above the $p < 0.05$ level.