Empathy and defending behaviours in school bullying: The mediating role of motivation to defend victims

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Background. The literature indicates that separate significant links exist in adolescence between empathy, cognitive and affective motivation to defend victims, and behavioural problems in bullying episode in schools.

Aims. The aim of the study was to investigate the relationship between empathy, motivation to defend, and defending behaviour in bullying situations. The hypothesis focuses on the possible role of autonomous motivation in the association between empathy and defending attitudes.

Samples and methods. Data were collected from 430 Italian adolescents (48.4% male, 51.6% female) who completed a questionnaire in their schools. The mean age of the participants was 13.1 years ($SD = 2.1$).

Results. Results showed that empathy significantly predicts defending behaviour and also has a significant effect on extrinsic, introjected, and intrinsic motivation to defend. Autonomous motivation, in turn, has a mediating role in the relationship between empathy and defending behaviour.

Conclusions. Our study suggests the importance of focusing on empathy and on developing autonomous motivation to defend in children, to raise spontaneous defending attitudes against bullying.

Bullying is a specific form of aggressive and violent behaviour among peers in the school context (Olweus, 2013). It is identified through three criteria: Bullying is a behaviour that is repeated over time, it is intentional, and it is characterized by a power imbalance. The intentional nature of this behaviour could also be described as aggression (Craig, Pepler, & Blais, 2007).

Bullying takes different forms in relation to the actions and the gender of the bully. It is manifested in various ways: physical, verbal, relational, or electronic (Moura, Cruz, & Quevedo, 2011; Sawyer, Mishna, Pepler, & Wiener, 2011). Researchers have discovered that boys are prone to physical bullying, while girls are more prone to relational bullying like social exclusion or spreading rumours (Caravita, Di Blasio, Salvivalli, 2009; Moura *et al.*, 2011; Sawyer *et al.*, 2011).

As bullying is generally influenced by the environment and other social factors, it impacts a school at the classroom level (Longobardi, Prino, Fabris, & Settanni, 2017,

2019). Every child, as a component of the group, has a role in the bullying event. Salmivalli, Lagerspetz, Björkqvist, Österman, and Kaukiainen (1996) theorized six participant roles in a group during bullying episodes. In addition to the bully and victim, there are four different bystander roles. Some bystanders take the bully's side (as reinforcers and assistants) while others take the victim's side (defenders) or try to avoid involvement (outsiders). Bullies take the initiative, the assistants join in, and the reinforcers laugh and cheer, giving positive feedback to the bullies. Defenders focus on helping the victim by directly intervening through telling a teacher or comforting the victim. Finally, outsiders are passive bystanders. Despite this lack of involvement, the outsiders' passive presence is still perceived by the group, thus enabling continued bullying. Children are quite aware of these roles (Longobardi, Iotti, Jungert, & Settanni, 2018). In addition, previous research highlighted how individual characteristics, such as empathy, have a relevant impact on the bullying phenomenon in general, and on bystanders' behaviours in particular (Nickerson, Aloe, & Werth, 2015; Pozzoli, Gini, & Thornberg, 2017).

Empathy and defending behaviours

To provide a rigorous definition of empathy is difficult. As Cuff, Brown, Taylor, and Howat (2016) explained, many definitions have been used to describe empathy, which generates difficulties when comparing different studies. In their review, Cuff *et al*. (2016) tried to underline the main aspects of empathy, providing a definition that encased them all:

> Empathy is an emotional response, dependent upon the interaction between trait capacities and state influences. Empathic processes are automatically elicited but are also shaped by top-down control processes. The resulting emotion is similar to one's perception (directly experienced or imagined) and understanding of the stimulus emotion, with recognition that the source of the emotion is not one's own. (p. 150)

In line with this view, Hoffman (2000) described an empathic situation as one in which someone feels and understands another person's emotions, and focuses on those emotions, rather than focusing only on his or her own feelings as a spectator. In other words, empathy activates moral principles in people; as a consequence, a bystander, positively driven by morality, can choose to help a victim (see Hoffman, 2000). In his book, Hoffman described the action of the defender in two steps: The spectator experiences empathic feelings and concern for the victim (i.e., emotional arousal), which then activates moral principles that guide the bystander's actions and decisions. Therefore, as Hoffman concluded, empathy relates to prosocial actions. Lockwood, Seara-Cardoso, and Viding (2014) observed the same positive association, and a growing body of research has demonstrated the positive link between empathy and prosocial behaviour (for a review, see Eisenberg, Spinrad, & Knafo-Noam, 2015). In the context of bullying, behaviours aimed at defending the victims can be considered as risky prosocial behaviours (Thornberg & Jungert, 2013) and they have, in fact, been positively associated with empathy in previous research (e.g., Barchia & Bussey, 2011; Gini, Albiero, Benelli, & Altoè, 2007; Meter & Card, 2015; Pozzoli *et al*., 2017; for a meta-analysis, see Nickerson *et al*., 2015).

The self-determination theory approach

A deeper understanding of the antecedents of defending behaviours in bullying situations can therefore be achieved by investigating the different motivations that can drive

witnesses to defend victims. Self-determination theory (SDT; Deci & Ryan, 1980, 2000) uses a continuum – from amotivation to intrinsic motivation – to explain how motivation can differ and develop. At one extreme of the continuum, amotivation encompasses a total lack of motivation, represented by non-regulation and an impersonal locus of causality in the subject. The other extreme, intrinsic motivation, consists of self-determined behaviour, with intrinsic regulation and an internal locus of causality. In other words, an intrinsically motivated subject can make decisions and act due to internal and personal values and processes, not driven by external rewards or rules.

Extrinsic motivation is in the middle of the continuum and can be divided into four types of regulation (external, introjected, identified, and integrated). External regulation is recognized as the most controlled form of extrinsic motivation (just following amotivation on the continuum); participants are externally motivated by reward or punishment. Introjected regulation represents a subject who acts on external rules that he or she has assimilated but that are not part of his or her self yet. This person is motivated to act in order to avoid feelings of shame or guilt and to gain pride in oneself. Identified regulation is closer to self-determined behaviour, in which people can recognize the value and the importance of a rule. Consequently, they perceive the rule as their own, but still act for instrumental goals. Finally, closest to intrinsic motivation is integrated regulation. This represents the best possible internalization of something received from the environment. In this case, the subject develops an internal locus of causality. Deci and Ryan (2000) stated that an internal locus of causality generates predisposition towards intrinsic motivation, thanks to high self-determination.

Referring to these types of regulation, Deci and Ryan (2000) defined external and introjected regulations as controlled motivation, and identified and integrated regulations as autonomous motivation.

Previous research found that autonomous motivation (i.e., identified and integrated regulation) is associated with stronger persistence than controlled motivation (i.e., external and introjected regulation) in several domains, including academic performance (Niemiec & Ryan, 2009; Taylor *et al*., 2014), job performance (Moran, Diefendorff, Kim, & Liu, 2012; Thornberg, Pozzoli, Gini, & Jungert, 2015), and health changes and maintenance (Ng *et al*., 2012). Only a few studies have examined the link between these types of motivation and prosocial behaviour (Marengo *et al*., 2018). For example, Hardy, Dollahite, Johnson, and Christensen (2015) revealed that autonomous motivation is associated with prosocial behaviour. Additionally, Jungert, Piroddi, and Thornberg (2016) found that autonomous motivation had a positive and significant association with defending behaviours in school bullying. Empathy has also been linked with autonomous motivation for prosocial behaviour among adults (Pavey, Greitemeyer, & Sparks, 2012). From a theoretical point of view, it is still unclear whether empathy is associated with autonomous or intrinsic motivation to defend victims in school bullying (Deci & Ryan, 1980, 2000).

Aims of the study

This study investigated the relationship between empathy, different motivations to defend, and actual defending behaviours performed by students who witnessed bullying. Considering these variables, we hypothesized that motivations to defend might mediate the positive association, already recognized in previous studies, between empathy and defending behaviours. In particular, empathy was expected to exert an indirect influence on defending behaviours by promoting higher levels of intrinsic motivation which, in

turn, would lead the students to intervene in bullying episodes. Nonetheless, empathy was not expected to influence the other motivations to defend, namely, introjected and extrinsic motivation.

Method

Participants

Participants were recruited during the 2017–2018 school year from two Italian public middle schools (grades 6–8), located in the northwest of Italy. Regarding school demographic information, the two schools were similar in size ($N = 626, 737$) and gender composition (male: 47.9%, 48.8%), and differed only marginally in the percentage of first- or second-wave immigrant students (6.6%, 8.2%). All of the participants were able to speak and read Italian. The schools' composition was representative of the demographics for the student population in the area.

The extent of bullying phenomena was compared between the two schools by conducting focus groups with the teachers of the classes involved in the research. During these focus groups, after giving a brief definition of different bullying forms, teachers ($N = 24$) were asked to answer questions about bullying episodes in their schools adapted from Bradshaw, Sawyer, and O' Brennan (2007), and no significant differences between the two schools emerged in terms of frequency of reported bullying episodes. School principals and teachers authorized the participation of each class in the study. Prior to data collection, individual consent for participation, as well as active parental consent, was obtained. Participants were assured of data confidentiality and informed that participation in the study was voluntary. In other words, they could refuse to participate and withdraw from the study at any time. Participants were also informed of the nature and objective of the study, in compliance with the ethical code of the Italian Association for Psychology (AIP). The study was approved by the IRB of the University (protocol no. 114683)

From the initial sample of students who were invited to participate in the study ($N = 441$), 97.5% agreed to participate. The final sample included 430 students (48.4% male, 51.6% female), and the mean age of the participants was 13.1 years ($SD = 2.1$). Most of the participants were of Italian nationality (93%), and the others were first- or second-wave immigrants. The participants completed an anonymous questionnaire during class hours. Data were collected in a paper/pencil format: A researcher visited each classroom, distributed questionnaires to the students in each class, and stayed in the classroom until the students had filled out the questionnaires. The researcher could answer questions if the students had any queries regarding items on the questionnaire.

Measures

Basic Empathy Scale (BES, Italian version; Albiero, Matricardi, Speltri, & Toso, 2009)

This study utilized a 20-item, self-report questionnaire for participants ranging from 9 to 18 years based on Joliffe and Farrington's original questionnaire (2006). The question-naire was designed to collect data about the emotional intelligence of the participants through two subscales: affective empathy (AE; 11 items, e.g., 'After being with a friend who is sad about something, I usually feel sad') and cognitive empathy (CE; nine items, e.g., 'I can understand my friend's happiness when he or she does well at something'). Eight items were reverse-scored. Participants could answer with a 5-point Likert scale ranging from 1 = 'strongly agree' to 5 = 'strongly disagree'.

Affective empathy measured 'emotional congruence with another person's emotions', while cognitive empathy represented the 'ability to understand another person's emotions' (Albiero *et al.*, 2009, p. 397). For the purpose of the present study, two subscale scores were calculated for each participant by averaging their item scores. A BES total score was also calculated based on the sum of subscale scores. In the Italian version of the instrument, researchers found positive results of internal consistency, with Cronbach's α being .87 (total score), .74 (CE subscale), and .86 (AE subscale). For the present study, the reliability of the two subscales was .63 and .77, respectively, for the affective and cognitive subscales. The reliability of the total scale score was .81. Given the suboptimal value of reliability for the AE subscale and the quite high correlation emerging between AE and CE subscales ($r = .66$), the models we tested included just the total score, as done by other authors examining the link between bullying and empathy (e.g., Lucas-Molina, Pérez-Albéniz, Fonseca-Pedrero, & Giménez-Dasí, 2018; Warden & Mackinnon, 2003).

Motivation to Defend Scale (MDS; Jungert et al., 2016)

The motivation to defend was tested by a 15-item, self-report questionnaire adapted from other scales including self-determination theory (SDT; Deci & Ryan, 1980; Ryan & Deci, 2000). Examples of these adapted scales also included the 'prosocial motivation in children' (Ryan & Connell, 1989); the 'motivation to help scale' (Weinstein & Ryan, 2010); and the 'academic motivation scale' (Vallerand *et al.*, 1992). Participants were asked to think of situations when they had seen another student being bullied in the last 6 months and to report 'why they would engage in helping a bully victim', agreeing or disagreeing with presented reasons for helping a victim during bullying. The 5-point Likert scale ranged from 1 = 'completely disagree' to 5 = 'completely agree'. The MDS was originally based on four dimensions of motivation: extrinsic (e.g., 'to become popular'); intrinsic (e.g., 'because I like to help other people'); introjected (e.g., 'because I would feel like a bad person if I did not try to help'); and identified (e.g., 'because I think it is important to help people who are treated badly'). Subscale scores were computed by summing the responses to the items constituting each subscale.

For this study, the factor structure of the instrument was initially tested using an EFA, and four items were removed because of high cross-loadings (>.40) and low levels of communality (<.40). As a result, three factors were extracted, accounting for 57% of instrument variance. The three factors reflect, respectively, intrinsic, extrinsic, and introjected motivation to defend. Two out of the three items intended to measure identified motivation loaded on the same factor as the ones intended to measure intrinsic motivation, suggesting a theoretically expectable overlapping between the two constructs. The emerging 3-factor structure was then tested using a CFA. The fit of the model was good, $\chi^2(40) = 78.88$, $p = < .01$, RMSEA = .05, CFI = .95, SRMR = .04, supporting the construct validity of the instrument. Unfortunately, given our relatively low sample size, EFA and CFA were run on the same sample, leading to possible model overfitting (Fokkema & Greiff, 2017). Using a cross-validation procedure would have allowed to deal with this problem more effectively. We aim at replicating this factor structure with different samples in future studies. The reliability of the scales computed using Cronbach's α was .72 for intrinsic motivation, .66 for extrinsic motivation, and .67 for introjected motivation.

Participant Role Scale (PRS): defending behaviours subscale (Jungert et al.*, 2016)*

The defending behaviours subscale was part of the PRS and consisted of three items investigating students' propensity to defend victims of bullying (e.g., 'I defend classmates who are targeted by gossip or false rumours'). The 5-point Likert scale ranged from 1 = 'Never happened during the last month' to 5 = 'More than once a week'. Participants indicated how often they had implemented the described behaviours during the current school year. The PRS score was computed by summing the responses to the three items constituting the scale. The reliability of the instrument was adequate, with Cronbach's α equal to .75.

Strategy of analysis

As a first step of the analyses, we examined missing values. A maximum of 2.1% of the cases was missing per variable. In order to assess the randomness of missing data, we performed a Little's MCAR test (Little, 1988; Little & Rubin, 2002). Missing data resulted to be completely at random: $\chi^2(3982) = 4,080.17$, $p = .14$. To prevent listwise deletion and maximize sample size, missing values were imputed with the expected–maximization (EM) algorithm (Schafer & Graham, 2002). Next, we computed descriptive statistics and correlations between study variables. Then, in order to investigate the interplay of empathy and motivation to defend influencing defending behaviours in bullying episodes, we tested a multiple mediation model. The tested model included motivation to defend variables as parallel mediators of empathy's effect on defending behaviours. Gender and age were included as covariates to make the interpretation of possible significant paths clearer. The Process Macro (Hayes, 2017) was used to perform the analysis. Results included estimates of both direct and indirect effects of empathy on defending behaviours. Indirect effects estimates were tested using a bootstrap method; parameter estimates and related confidence intervals for both the total and specific indirect effects were computed using 5,000 random samples. Effects were considered significant when 95% of the bias-corrected bootstrap confidence interval did not include 0. In order to allow the comparison of the effects of the tested model, we also reported standardized regression coefficients (β).

Given the possible effect of gender on the hypothesized relationships, we tested a multi-group mediation model using gender as grouping variable. This analysis was conducted using Mplus, version 7.1. With this analysis, we aimed at testing the invariance across gender of the hypothesized mediation model. Model invariance across gender is supported if the model fits well in both of the subpopulations and there is a non-significant difference of fit (i.e., chi-square difference) between the constrained model (a model with all of the paths forced to be equal for males and females) and the unconstrained model (a model with the paths free to vary for males and females).

Results

Correlation and descriptive statistics

Table 1 shows the descriptive statistics and Pearson's correlation coefficients of the study variables. With respect to the study's aims, it is noteworthy that (1) empathy scores were positively correlated with defending behaviours, and (2) empathy scores were highly correlated with both intrinsic and introjected motivation to defend. Extrinsic motivation was negatively correlated with empathy scores. Furthermore, both intrinsic motivation and introjected motivation were positively correlated with defending behaviours.

Table 1. Correlation matrix and descriptive statistics for study variables

	Sex (F = 1)	Age	BES total score	PRS defending behaviour	MDS intrinsic motivation	MDS extrinsic motivation	MDS introjected motivation
Sex	1	−.060	.333**	.039	.200***	−.170**	.173**
Age		1	−.169**	−.197**	−.173***	−.117*	−.195***
BES total score			1	.284**	.410***	−.157***	.353***
PRS defending behaviour				1	.319**	−.032	.224***
MDS intrinsic motivation					1	−.138**	.547***
MDS extrinsic motivation						1	−.134**
MDS introjected motivation							1
M		13.78	7.05	10.09	20.59	6.13	12.49
SD		2.1	0.98	4.32	3.33	2.81	2.14

Notes. BES = Basic Empathy Scale; MDS = Motivation to Defend Scale; PRS = Participant Role Scale.
*p < .05; **p < .01.

Effects of empathy on defending behaviours

A regression model included defending behaviours as the dependent variable and the empathy total score as the main predictor. Age and gender were set as covariates, and they were regressed on both mediators and outcome variables. A significant effect was found, $R^2 = .11, F(3, 426) = , p < .001$, in which empathy was associated with greater defending behaviours ($b = 1.21, p < .001$, 95% CI [0.789, 1.637], $\beta = .28$).

Effects of empathy on motivation to defend

Empathy was significantly associated with lower extrinsic motivation to defend ($R^2 = .06$, $b = -0.40, p = .006$, 95% CI [−0.686, −0.117], $\beta = -.14$), and more highly associated with introjected ($R^2 = .15$, $b = 0.68, p < .001$, 95% CI [0.469, 0.882], $\beta = .31$) and intrinsic motivation to defend ($R^2 = .18$, $b = 1.25, p < . 001$, 95% CI [0.937, 1.567], $\beta = .37$).

Mediation model

Figure 1 shows the results of the mediation model. Even when empathy positively influenced both intrinsic and introjected motivation to defend and had a negative influence on extrinsic motivation, only intrinsic motivation to defend acted as a significant mediator. The mediation effect was partial: Empathy had both a direct and indirect effect on defending behaviours. Furthermore, empathy scores positively influenced intrinsic motivation to defend which, in turn, predicted higher levels of defending behaviours ($b = 0.37$, bootstrap $SE = .10$, bootstrap CI [0.19, 0.59], $\beta = .08$). Students with higher empathy reported higher levels of intrinsic motivation to defend, which was related to a higher frequency of defending behaviours. No mediation emerged for introjected ($b = 0.03$, bootstrap $SE = .08$, bootstrap CI [−0.12, 0.19], $\beta = -.0003$) or extrinsic motivation ($b = -0.001$, bootstrap $SE = .03$, bootstrap CI [−0.06, 0.07], $\beta = .007$).
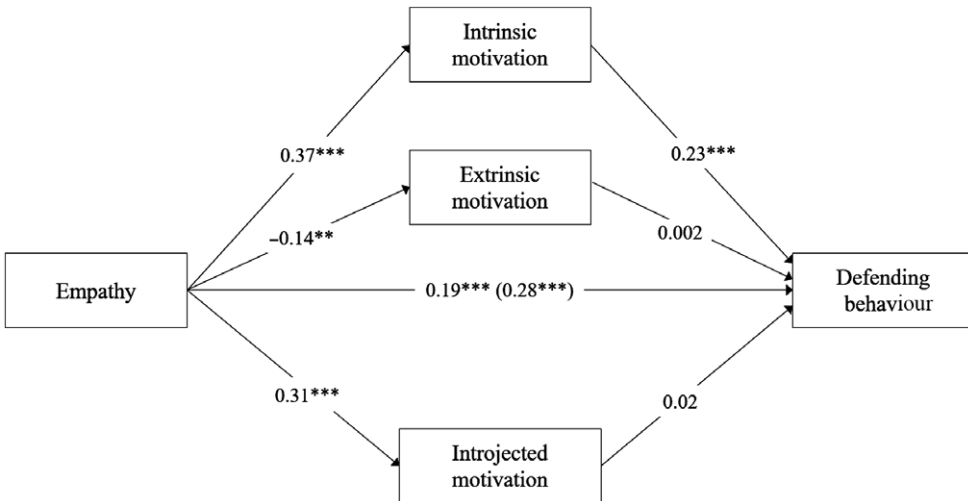

Figure 1. Multiple mediation model of different motivations to defend in the association between empathy and defending behaviour.
Note: Standardized coefficients are reported; *$p < .05$, **$p < .01$, ***$p < .001$.

In order to test the invariance of the model across genders, we tested a multiple group path model with Mplus 7.1, maintaining in the model all the paths that had emerged as significant in the previous analyses. As expected, the model fitted well in both of the groups, males: $\chi^2(1) = 3.12$, $p = .07$, RMSEA = .09, CFI = .98, SRMR = .03; females: $\chi^2(1) = 2.56$, $p = .11$, RMSEA = .08, CFI = .97, SRMR = .03, and the chi-square difference between the unconstrained (paths can be different for males and females) and the constrained models (path are equals for males and females) was non-significant, $\chi^2(3) = 7.08$, $p = .07$, indicating that the parameters estimated in the mediation model are not significantly different for males and females. Results of these analyses support the invariance of the mediation model across genders. Given the substantial overlapping between results in the male and female subsamples, the discussion is based on the model tested on the whole sample.

Discussion

An emerging body of the literature focuses on the association between bullying and empathy (i.e., see Eisenberg, Eggum, & Di Giunta, 2010; Joliffe & Farrington, 2011; Pozzoli *et al.*, 2017; Van Noorden, Bukowsi, Haselager, Lansu, & Cillessen, 2016; Van Noorden, Haselager, Cillessen, & Bukowski, 2015), although a growing body of studies has shown a negative association between empathy and defending behaviours in peer aggression and bullying (e.g., Barchia & Bussey, 2011; Gini *et al.*, 2007; Meter & Card, 2015; for a meta-analysis, see Nickerson *et al.*, 2015). In addition, empathy has been linked with autonomous motivation for prosocial behaviour among adults (Gini, Pozzoli, & Vieno, 2012; Pavey *et al.*, 2012). However, to our knowledge, this study was the first to test the association between empathy and various forms (i.e., intrinsic, introjected, and extrinsic) of motivation to defend, as well as the associations between empathy, the three forms of motivation to defend, and defending behaviours in the same model. The study's findings revealed that high levels of empathy were related to greater intrinsic motivation to defend, and both empathy and intrinsic motivation were associated with a higher prevalence of defending behaviours in bullying situations.

Another aim of the study was to examine and demonstrate how empathy might be indirectly associated with defending behaviours through intrinsic motivation. For the first time, the interplay of empathy and motivation to defend and their relationship with defending behaviours was examined.

As previous studies (Nickerson *et al.*, 2015) have highlighted, empathy and defending behaviours are directly associated, but they are also indirectly associated via the mediating variable of motivation to defend. The study considered three subtypes of motivation to defend (Deci & Ryan, 2000): intrinsic, extrinsic, and introjected motivation. Empathy had a significant effect on all three above subtypes of motivation: a positive influence on intrinsic and introjected motivation, and a negative influence on extrinsic motivation.

The positive association between empathy and intrinsic motivation to defend was in line with SDT (Deci & Ryan, 2000). A possible interpretation of our findings is that empathic arousal made adolescents feel like they were the 'origin', rather than a 'pawn', of the defending behaviours, giving them intrinsic motivation to defend victims. It is possible that the positive association between empathy and introjected motivation to defend was caused, as Hoffman (2000) argued, by empathic arousal, that may be transformed into other so-called moral or empathy-based emotions, including guilt for not helping someone in distress. This theory has been supported by previous research which showed that

empathy is positively associated with guilt among children and adolescents (Hoffman, 2000; Silfver & Helkama, 2007).

Even if the cross-sectional nature of this study does not allow to infer causal relationships, our findings suggest that empathy might allow for the development of self-conscious actions that are independent of external rules. In this view, students decided autonomously to act against bullying and help victims through their intrinsic or introjected moral motivation. Only intrinsic motivation to defend was identified as a significant mediator (i.e., partial mediator) between empathy and defending behaviours, whereas introjected and extrinsic motivation (or controlled motivation; Deci & Ryan, 2000) had no roles in mediating the connection between the two variables.

Similar to SDT theory (Deci & Ryan, 2000) and its focus on motivation in bullying events, the results of this study suggest that students who are more empathetic are also more intrinsically motivated to defend and, therefore, more inclined to actually defend victims when witnessing bullying. Furthermore, the antecedent study of Jungert *et al*. (2016) showed that intrinsic (or autonomous) motivation influenced defending behaviours positively. Consequently, this study focused on the possible mediating effect of motivation between empathy and defending behaviours. As the results show, highly empathic students were more inclined to defend victims of bullying situations, exhibiting a stronger intrinsic motivation to defend victims that in turn is linked to a higher frequency of defending behaviours. This pattern of relationships is theoretically compatible with a mediating role of intrinsic motivation that allowed empathy to act indirectly on students' inclination to defend: The significant connection between empathy and defending behaviours was found to be both direct and indirect. The indirect connection was due to the mediating role of intrinsic motivation. These findings are in line with the previous literature: Intrinsic or autonomous motivation as a mediator for the relationship between empathy and prosocial behaviour was also studied among adults by Pavey *et al*. (2012). The authors recognized that empathy increased autonomous motivation to defend and underlined the fact that controlled motivation had no positive effect on any of the three studies of the article.

Limitations and implications

Despite these results, some limitations of the study should be noted. First, data were collected with self-report questionnaires; these results could have been influenced by social pressure, and the variables' relationships might be overstated due to shared method variance. A second limitation was due to the cross-sectional design of the study; with this type of design, it is possible to recognize correlations between variables, but these associations are identified without direction. In other words, a cross-sectional design cannot pinpoint the direction of the associations between the variables. Another limitation can be found in the focus of the study, which was concentrated on empathy's association with motivation to defend and defending behaviours. However, motivation to defend can also be influenced by other psychological and contextual factors such as moral standards, attitudes, social cognition, and relationships between peers, children–parents, and children–teachers, respectively. Furthermore, given the low reliability of the empathy subscales, we were not able to separately test the influence of affective and cognitive empathy on the outcomes. Another possible methodological limitation is represented by the factor validity of the MDS. In particular, the analysis conducted for this study supported a three-factor structure, which is different both from what theoretically expected (i.e., four factors) and from what emerged in a past research (i.e., two factors;

Jungert *et al*., 2016). Given this situation, and the impossibility to conduct a cross-validation in our sample, further studies are needed in order to settle the dimensionality of the instrument. Finally, the sample of students was collected from two different schools, but only in one city in the north of Italy. For this reason, the results might not apply to other populations. Future studies can avoid this limitation by replicating the research with children from different cultures, countries, and age levels.

In conclusion, in accordance with previous research, this study suggests that empathy could exert both a direct and indirect effect on defending behaviours of bystanders. According to these findings, empathy is valuable due to its role in improving positive behaviours through direct and indirect influence (via motivation to defend). In this light, it could be useful for schools to focus on programmes aimed at specifically promoting empathy or empathy-related constructs (e.g., emotion understanding, perspective taking), with the goal of helping students to enact more prosocial behaviours in general and in particular to protect victims when witnessing bullying episodes. It is worthy to note that many evidence-based school interventions already exist (for a review, see Malti, Chaparro, Zuffianò, & Colasante, 2016) using different approaches (e.g., role playing or moral dilemma) to reach this aim.

Additional focus was placed on the main role of intrinsic motivation in improving positive behaviours in students. This information, connected with the SDT theory of Deci and Ryan (2000), confirmed the importance of autonomous motivation instead of controlled motivation in actions against bullying. The former motivation is the main quality that must be increased in students, in order to raise children that choose to help for genuine, self-conscious, and moral reasons.

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