



# Drawing an Angry Perpetrator and a Sad Target: Children's Understanding of Emotions of School Bullying Perpetrators and Targets

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Accepted: 18 March 2023  
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## Abstract

The present study aimed to investigate school-aged children's understanding of emotions of perpetrators and targets of school bullying and whether these vary as a function of children's participant role in a bullying episode. One hundred seventy-six boys and girls, with a mean age of 11 years and 3 months, participated in the study. They were asked to match emotions felt by the perpetrator and target in an emotional scenario and in a drawing task, while their own participant role in a bullying episode was assessed through a series of short individual scales. Results showed that overall children associated anger and happiness with the perpetrator, while sadness and fear with the target. Moreover, children's understanding of emotions of school bullying perpetrators and targets was found to be related with their scores in Bullying, Victimization, Defender, and Assistant scales. Results are discussed in relation to their possible contribution in comprehending the dynamics of bullying, by highlighting how understanding of specific emotions of perpetrators and targets is related to involvement in bullying.

**Keywords** Bullying · Children · Drawing · Emotion

## Introduction

Over the past two decades, a large amount of research has shown that human beings from an early age are capable of attributing emotional and intentional states to others and understand the events, which precede and cause certain emotions (Newman & Newman, 2010; Pozzoli et al., 2017; Romera et al., 2019). Although these skills are considered basic steps in the development of psycho-social adjustment (Trentacosta & Fine, 2010), there is little published literature

concerning their association with bully/victim problems. Relevant research focuses on the attributions of moral emotions such as great levels of pride and indifference to aggressors in bullying and great levels of guilt and shame to victims (Menessini et al., 2003; Perren et al., 2012; Romera et al., 2019). These attributions seem to play a regulatory role in social interaction, as they can promote or inhibit dysfunctional behavior (Barón et al., 2018; Romera et al., 2019).

Up to now, only a few studies investigated children's attributions and/or recognitions of emotions in relation to peer-to-peer school bullying. Del Barrio et al. (2003) found that children aged 9–13 years attributed rejection (55%), sadness (49%), and shame and fear (13% each) to other as victim, while studies conducted within the conceptual framework of “moral disengagement” (Bandura, 2016) found that apart from anger, happiness is a common emotion among bullies (Gini, 2006; Perren et al., 2012; Trofi & Farrington, 2008). Moreover, previous studies have shown that school bullying perpetrators are more likely to recognize emotions of fear while targets have a lower ability to recognize emotions of anger (Guy et al., 2017; Liu et al., 2019; Pozzoli et al., 2017). Camodeca and Goossens (2005) found that fear, anger, and sadness are common emotions among victims, while anger and happiness are usually connected with bullies' behavior.

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Similarly, Mahady Wilton et al. (2000) found that joy and anger were by far the most frequently observed emotional displays among bullies, while high levels of anger, sadness, and fear in victims of both face to face and cyberbullying have been observed in many studies (Beran & Li, 2005; Ciucci et al., 2014; Hinduja & Patchin, 2007; Spears et al., 2009, Mahady Wilton, et al., 2000). Other studies have reported victims being generally less accurate in recognizing emotions such as anger, fear, and disgust compared to non-involved individuals (e.g., Ciucci et al., 2014; Franzel et al., 2021). Most of these studies used pictorial vignettes to investigate emotions, while as far as we know, no study has made use of children's drawings in order to investigate understanding of emotions of perpetrators and/or targets of school bullying episodes.

Drawings have been previously used as a means to investigate school bullying. Specifically, previous research focused on children's relevant perceptions or experiences by asking them to draw a bullying incident (Andreou & Bonoti, 2010; Bosacki et al., 2006; Gillies-Rezo & Bosacki, 2003; Negi, 2021; Slee & Skrzypiec, 2016). These studies have shown that drawings can reveal how children perceive the forms of bullying behavior (Bosacki et al., 2006) or the participant roles in a bullying episode (Andreou & Bonoti, 2010). Moreover, they displayed that drawings can convey the affective dimension of the bullying behavior, by expressing a positive or negative affect through the depiction of the facial expression of the drawn figures (Bosacki et al., 2006; Slee & Skrzypiec, 2016) or the use of indicators, such as details, heaviness of lines, and size (Slee & Skrzypiec, 2016), which were clinically associated with emotional distress (e.g., Koppitz, 1968), but have received limited empirical validation in subsequent studies (Joiner et al., 1996; Thomas & Jolley, 1998).

In the present study, we aimed to investigate more systematically the emotional dimension of children's drawings and to this end, children were not simply asked to depict the bullying phenomenon, but to deliberately portray perpetrators and targets of school bullying in a way that their emotions could be apparent. Moreover, in order to validate the procedure, they were asked to participate in a matching task by presenting them a relevant emotional scenario. To attain our aim, we sampled children aged 10–12 years, since previous research suggests that within this age range children are able to denote a variety of emotions in their drawings (Brechet et al., 2009; Jolley et al., 2004; Misailidi & Bonoti, 2014; Picard & Gauthier, 2012; Picard et al., 2007). Furthermore, studies examining the relationship between children's ability to draw expressively and their emotional comprehension concluded that the developing with age emotional understanding permits children to produce more expressive drawings (Brechet & Jolley, 2014; Brechet et al., 2009).

Additionally, in our attempt to shed light on children's understanding of emotions of the bullying dyad, we adopted a participant role approach. Salmivalli et al. (1996) have showed that children may take several participant roles in addition to bully and victim, by helping the bully (assistants), laughing and providing the bully with positive feedback (reinforcers), sticking up for the victim (defenders), or remaining uninvolved (outsiders) (see also Gini et al., 2008). Why someone chooses to help or reinforce a bully, defend a victim, or withdraw and stay silent in a bullying situation is still a puzzling question (Metallidou et al., 2018) and in an attempt to understand the dynamics in bullying as a group-based phenomenon, the examination of bystanders' personal characteristics has recently attracted research interest (Thornberg et al., 2021; Van der Ploeg et al., 2017). Different ways in which children can be involved in the bullying process may be connected with different understanding of emotions of perpetrators and targets. Woods et al. (2009) found that peer-nominated bullies did not differ from students not involved in bullying in their ability to recognize emotions, whereas victims scored lower in recognition of anger and fear. In contrast, Ciucci et al. (2014) found no significant relation between self-reported bullying and victimization and emotion recognition abilities. However, both studies only focused on bullying and victimization, neglecting the social nature of bullying. Pozzoli et al. (2017) showed that higher levels of victimization were associated with a general difficulty in recognizing emotions and that the recognition of emotions is an ability that can be related with both moral (i.e., defending the victim) and immoral (i.e., bullying others) behavior in the context of bullying dynamics.

Based on the above it was anticipated that (a) children would associate fear, anger, and sadness with the victim, while happiness and anger with the bully (Barrio et al., 2003; Borg, 1998; Ciucci, et al., 2014; Camodeca & Goossens, 2005; Perren et al., 2012) and (b) children's associations of emotions would vary as a function of their own participant role in the bullying episodes.

## Method

### Participants

Participants for this study were 176 students (87 boys and 89 girls) ranging in age from 10 to 12 years ( $M_{age} = 11$  years and 3 months). They were recruited from the 5<sup>th</sup> and 6<sup>th</sup> grade classrooms of three primary schools in a city in central Greece. Parental consent for all participants was obtained, while students were informed for the aim of the study and were given the opportunity to express their refusal or desire of interrupting their participation.

## Procedure

The tasks examining children's understanding of emotions were administered individually by one of the authors. In a next step, questionnaires examining children's role in bullying were completed as a classroom assignment.

## Measures

### Task Examining Children's Understanding of Emotions

In a preliminary task, children's ability to label emotions expressed in photographs was examined in order to familiarize them with the subsequent emotional tasks and ensure that they could understand basic emotions. More specifically, five color photographs of children (male for boys and female for girls) expressing happiness, sadness, fear, anger, or no emotion were presented one by one in a random order and children were asked to label the emotion expressed. All children successfully recognized the presented emotions.

In a next step, children heard a story describing a bullying episode and then they were asked about the emotions felt by the two persons of the scenario. More specifically, the story was "George (or Mary) is a tall and strong child of the 6<sup>th</sup> grade that has spotted Peter (or Ann), a student of the 4<sup>th</sup> grade. George mocks and threatens Peter daily, tears his notebooks, pushes him (or her) or strikes him (or her) when he (or she) is in the canteen and does not let him (or her) play with his (or her) friends at the break." The researcher presented the five photographs used in the preliminary task and the child was asked to show how the perpetrator of the episode felt ("Could you choose one of those photos to show me how George/Mary felt?"). Then, the child was provided with a white page and ten colored pencils and she/he was asked to draw the emotion felt by the perpetrator of the episode ("Please draw me how George/Mary felt. Try to make your drawing in a way that someone can understand how George/Mary felt").

Subsequently, in order to remind children the role of each person in the episode, the story was presented once more and the same procedure was followed for the target, that is children were asked to show in the photographs and to draw the emotion felt by the target. After the completion of these drawing tasks and in order to ensure that each child denoted to the drawn figures the emotion he/she intended to, he/she was asked to label the emotion of each drawn picture ("Please, tell me how George/Mary or Peter/Ann feels in your drawing"). All children denoted to the drawn figures of the perpetrator and the target the intended emotion.

Finally, children were asked to produce a control drawing ("Please draw me a child that has no emotion") which was used in order to detect possible alterations in the expression of the bully-victim dyad.

### Coding of Drawings

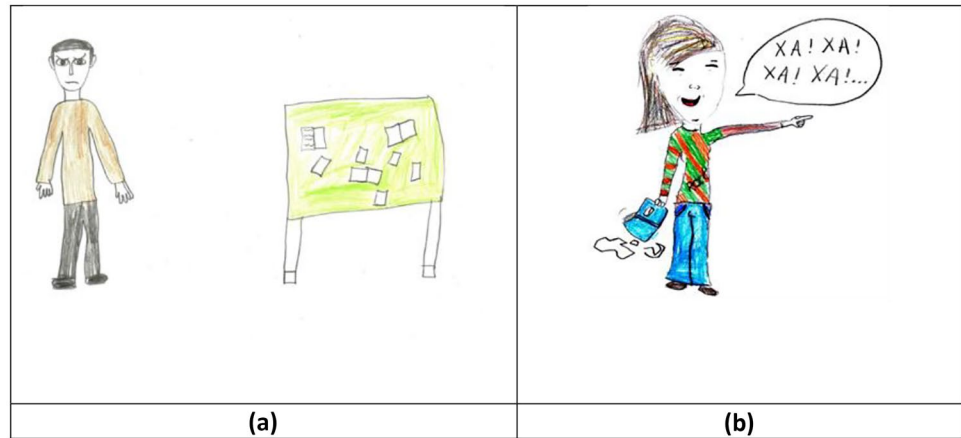
In order to code the expression of emotions in children's drawings, we relied on the literature reporting the expressive strategies children employ to denote specific emotions in their drawings (Brechet et al., 2009; Bonoti & Misalidi, 2015; Jolley et al., 2004; Picard et al., 2007). Specifically, this evidence suggests that children can express emotion in their drawings either literally or non-literally. Literal expression refers to adaptations of the facial features of a person or a personified object (e.g., drawing of a downturned mouth denotes sadness). Non-literal or metaphorical expression comprises contextual and abstract strategies. Contextual strategies include the manipulation of the drawing scene in order to denote the emotion metaphorically (e.g., drawing thunders signifies fear). Finally, abstract expression refers to the appropriate use of the formal properties of the drawing, such as color and lines, to express a specific emotion (e.g., drawing with bright colors signifies happiness) (for a review, see Cox, 2005; Jolley, 2010).

Following the aforementioned suggestions, two independent raters compared each emotional drawing (i.e., of the perpetrator and the target of school bullying) to its control in

**Table 1** Expressive strategies used to denote emotions

Emotion	Expressive strategies		
	Literal	Context	Abstract
Happiness	Smile	Posture (arms raised), surroundings (e.g., sun), objects (e.g., gifts), linguistic symbols	Bright colors, increase of size, smooth lines
Sadness	Downturned mouth, tears	Posture (arms close to the torso or near/covering the face), surrounding (e.g., rain), objects (e.g., torn paper), linguistic symbols	Lack of color or dark colors, decrease of size, angular lines
Anger	Teeth, downturned eyebrows	Posture (arms raised, hands like a fist), surroundings, objects (e.g., stones), linguistic symbols	Dark colors or predominance of red color, sharp lines
Fear	Open mouth, wide-open eyes	Posture (arms covering the body, wounds), surrounding (e.g., storm), linguistic symbols	Dark colors, decrease of size

**Fig. 1** Examples of drawings depicting a bullying perpetrator feeling **a** anger and **b** happiness



order to identify possible alterations in (a) the facial expressions of the drawn figures, (b) the context of the whole drawing, and (c) the formal properties of the pictures, such as lines, colors, and size.

Each drawing was considered to express the intended emotion in the case that it included at least one graphic cue corresponding to the expressive strategies presented in Table 1 found to be used for the depiction of emotions under investigation (Brechet et al., 2009; Bonoti & Misalidi, 2015; Picard et al., 2007). All other drawings were considered to depict no emotion (10 drawings representing the bully and 5 drawings representing the victim). Raters assigned a score of 1 for the presence and a score of 0 for the absence of each type of expressive strategies in children's emotional drawings. Interrater agreement was found satisfactory (97% for literal, 95% for context, and 93% for abstract strategies). Representative drawings of bullies and victims are presented in Figs. 1 and 2 respectively.

### Role in Bullying

Role in bullying was assessed by different scales to measure bullying, victimization, and participant role following the usual

process proposed for primary school students (i.e., different scales with similarly structured and scored items: see, Andreou & Bonoti, 2010; Xie & Ngai, 2020). Two short individual difference scales developed by Austin and Joseph (1996) were used to assess peer victimization (the extent to which the child is bullied by other children) and bullying behavior (the extent to which the child bullies other children).

The first scale (Peer-victimization Scale) consists of six forced items, which refer to being the victim of negative physical and verbal actions. For each item, participants were presented with descriptions of two kinds of children, ones with high victim behavior and ones with low victim behavior; participants indicated which of the two kinds of children they resembled more and then indicated whether this choice was *really true* or *sort of true* for them. Responses were scored on a scale of 1 to 4, with higher scores reflecting greater victimization.

The item pool of the second scale (Bullying Behavior Scale) was based on the "Peer-victimization Scale" and involved changing the tense of the item from passive to active. For each item, participants were presented with descriptions of two kinds of children, ones with high bullying behavior and ones with low bullying behavior;

**Fig. 2** Examples of drawings depicting a target of bullying feeling **a** sadness and **b** fear



participants indicated which of the two kinds of children they resembled more and then indicated whether this choice was *really true* or *sort of true* for them. Responses were scored on a scale of 1 to 4, with higher scores reflecting greater bully behavior. The maximum possible score for each scale was 24 and the minimum 6. No bullying definition was provided to the respondents because the items make explicit reference to specific behaviors regarding power imbalance and not to the concept of bullying as such (see, Kokkinos & Panayiotou, 2007).

In addition, a short self-report questionnaire based on the “Participant Role Scale” (Salmivalli et al., 1996) was used to assess behaviors associated with different participant roles in school bullying. The questionnaire consisted of 16 behavior descriptions (see Andreou & Metallidou, 2004) in each of the following roles: (a) assistant to the bully (not starting the bullying but joining afterwards – 5 items), (b) reinforcer of the bully (attending to bully’s behavior positively via watching, laughing, or using encouraging gestures – 2 items), (c) defender of the victim (sticking up for or consoling the victim – 5 items) and (d) outsider (avoiding bullying, not taking sides with anybody – 4 items).

Items were structured and scored similarly to those on the “Bullying Behavior Scale” and the “Peer-victimization Scale.” Responses were again scored on a scale of 1 to 4, with higher scores reflecting greater assistant, reinforcer, defender, and outsider behavior respectively. The maximum possible score that children could obtain on the Assistant, Reinforcer, Defender, and Outsider scales are 20, 8, 20, and 16 and the minimum 5, 2, 5, and 4 respectively. Reliability of the six role in bullying measures was satisfactory (Cronbach’s alphas: Bully a 0.79, Victim a 0.81, Assistant a 0.74, Reinforcer a 0.69, Defender a 0.77, and Outsider a 0.72).

## Results

### Children’s Understanding of Emotions of the Perpetrator and the Target of Bullying

Initially, the frequency with which children associated specific emotions with the perpetrator and the target was examined. Table 2 presents these frequencies for both the emotional scenario and the drawing task. Overall, children associated more often anger and then happiness with the bullying perpetrator, while they associated primarily sadness and secondly fear with the target. However, differences were observed between the two tasks. For instance, while children tended to associate anger more often with the perpetrator verbally than graphically, the opposite pattern was observed when they associated happiness with the perpetrator. Finally, children seemed to associate more often an emotion with the target, than with the bullying perpetrator. A series of

**Table 2** Frequencies of children associating different emotions with the perpetrator and target by type of task

	Perpetrator		Target	
	Scenario	Drawing	Scenario	Drawing
Happiness	33	69	0	0
Sadness	6	8	136	125
Anger	114	85	3	5
Fear	3	4	36	41
No emotion	20	10	1	5

chi-square tests showed that children associated anger with the perpetrator more often than expected in the emotional scenarios [ $\chi^2(4) = 236.78, p = 0.000$ ], while anger and happiness in their drawings [ $\chi^2(4) = 169.62, p = 0.000$ ]. Additionally, participants associated sadness with the target more often than expected both verbally [ $\chi^2(3) = 274.04, p = 0.000$ ] and graphically [ $\chi^2(3) = 218.45, p = 0.000$ ].

### Strategies Used to Depict the Emotions Felt by the Perpetrator and the Target

In general, the majority of children denoted the emotion of the figures by altering their facial expressions (see Table 3). However, the analyses performed showed that children seemed to use more often literal strategies for the depiction of the target of bullying [ $\chi^2(1, N = 176) = 20.39, p = 0.001$ ], while they tended to use more often contextual [ $\chi^2(1, N = 176) = 38.16, p < 0.001$ ] and abstract strategies [ $\chi^2(1, N = 176) = 96.12, p = 0.001$ ] for the depiction of the perpetrator.

### Participant Role Differentiation

Analyses of variance were applied to examine differences on Victimization, Bullying, Reinforcing, Assisting, Defending and Outsider scales between associations of emotions (relevant, i.e., anger or happiness to perpetrators and fear, anger, or sadness to targets vs irrelevant or no emotion) based on both the emotional scenario and the drawing task. Mean scores and SDs on each of the six participant role scales in associations of bullying perpetrators’ emotions are shown in Table 4.

**Table 3** Percentages of children using each type of expressive strategies for the depiction of perpetrator and target

	Perpetrator	Target
Literal strategies	93.4%	98.2%
Contextual strategies	53%	35.7%
Abstract strategies	45.8%	35.7%

**Table 4** Mean (SD) on participant role scales by emotion associated with bullying perpetrators in both scenarios and drawings

Associations of emotions				
Scales	Relevant		Irrelevant	
	Scenario	Drawing	Scenario	Drawing
Victimization	<b>10.32 (3.86)</b>	10.64 (3.59)	<b>12.44 (3.37)</b>	11.44 (5.70)
Bullying	<b>10.08 (3.65)</b>	<b>10.23 (3.60)</b>	<b>13.01 (3.80)</b>	<b>12.16 (4.18)</b>
Reinforcer	15.48 (3.80)	15.33 (3.84)	14.85 (3.70)	16.55 (3.59)
Assistant	3.26 (1.71)	3.35 (1.79)	3.29 (1.75)	3.25 (1.66)
Defender	15.48 (3.80)	15.33 (3.84)	14.85 (3.70)	16.55 (3.58)
Outsider	8.28 (2.60)	8.32 (2.61)	8.71 (2.86)	8.44 (3.27)

No significant difference was found between participants who associated anger or happiness with bullying perpetrators and those who associated irrelevant or no emotions in either the scenario or the drawing task on Reinforcer [ $F(1,174)=0.38$ , *ns* and  $F(1,174)=0.41$ , *ns*, respectively], Assistant [ $F(1,174)=0.21$ , *ns* and  $F(1,174)=0.03$ , *ns*, respectively], Defender [ $F(1,174)=1.01$ , *ns* and  $F(1,174)=0.37$ , *ns*, respectively], and Outsider [ $F(1,174)=0.88$ , *ns* and  $F(1,174)=0.59$ , *ns*, respectively] scales. Participants who associated irrelevant emotions with the perpetrator on the scenario tended to score higher on the Victimization [ $F(1,174)=4.19$ ,  $p=0.04$ ] and Bullying scales [ $F(1,174)=8.03$ ,  $p=0.005$ ]. Participants who associated relevant emotions with the bullying perpetrator on the drawing task tended to score lower on the Bullying scale [ $F(1,174)=9.27$ ,  $p=0.003$ ] but they were not found to differ from those who associated irrelevant emotions with the perpetrator on the drawing task in their scores on the Victimization scale [ $F(1,174)=1.21$ , *ns*].

Table 5 presents the means and SDs on each of the six participant role scales in associations of targets' emotions. No significant difference was found between participants who associated fear, anger, and sadness with targets of bullying and those who associated irrelevant or no emotions in either the scenario or the drawing task on Victimization [ $F(1,174)=0.53$ , *ns* and  $F(1,174)=0.39$ , *ns*, respectively], Reinforcer [ $F(1,174)=1.38$ , *ns* and  $F(1,174)=1.01$ , *ns*, respectively], and Outsider [ $F(1,174)=0.21$ , *ns* and  $F(1,174)=0.42$ , *ns*, respectively] scales. Participants who associated irrelevant emotions with the target of bullying on both the scenario and the drawing task tended to score higher on the Bullying scale [ $F(1,174)=5.01$ ,  $p=0.04$  and  $F(1,174)=4.89$ ,  $p=0.04$ , respectively]. Participants who associated relevant emotions with the targets on the drawing task tended to score significantly lower on the Assistant scale [ $F(1,174)=8.05$ ,  $p=0.005$ ] and those who associated relevant emotions with the targets on the scenario significantly higher on Defender scale [ $F(1,174)=4.21$ ,  $p=0.04$ ].

**Table 5** Mean (SD) on participant role scales by emotion associated with target of bullying in scenarios and drawings

Associations of emotions				
Scales	Relevant		Irrelevant	
	Scenario	Drawing	Scenario	Drawing
Victimization	10.52 (3.62)	10.39 (3.65)	10.94 (4.66)	11.39 (4.58)
Bullying	<b>9.60 (3.57)</b>	<b>9.74 (3.79)</b>	<b>11.30 (3.49)</b>	<b>11.48 (3.61)</b>
Reinforcer	15.35 (3.79)	15.47 (3.84)	16.75 (3.77)	15.71 (3.86)
Assistant	3.26 (1.71)	<b>3.24 (1.71)</b>	3.50 (1.91)	<b>5.33 (1.15)</b>
Defender	<b>16.48 (3.63)</b>	15.47 (3.84)	<b>15.01 (4.43)</b>	14.71 (3.86)
Outsider	8.36 (2.59)	8.29 (2.62)	7.75 (4.99)	9.66 (1.96)

No significant difference was found between relevant and irrelevant associations based on the scenario on Assistant scale [ $F(1,174)=1.01$ , *ns*] or based on the drawing task on Defender scale [ $F(1,174)=0.79$ , *ns*].

## Discussion

In the present study, children's understanding of emotions has been studied by asking them to match an emotional scenario with a facial expression and to depict the emotions of the drawn figures. Both means have been previously used for assessing children's emotional understanding (Brechet et al., 2009; Camras & Allison, 1985), but their combination in the present study offers a validation of their appropriateness to study children's understanding of emotions of the perpetrator-target dyad. Children overall associated anger and happiness with the perpetrator, while sadness and fear with the target. The association of happiness to school bullying perpetrator could be interpreted from an evolutionary perspective, as it aligns with evolutionary views that bullying is an adaptive behavior used to solve adaptive problems relating to attaining dominance, resources, defending oneself, and deterring competition and victimization (Volk et al., 2022). In serving these adaptive functions, bullying may generate feelings of happiness, especially when those goals involve fundamental social needs such as belonging or acceptance and is not necessarily a function of social incompetence or emotion dysregulation. In developmental terms, our findings signify that children can recognize bullying as an emotionally embedded situation, by appropriately estimating the emotions usually experienced by perpetrators and targets in a school bullying episode (Camodeca & Goossens, 2005; Mahady Wilton et al., 2000; Spears et al., 2009). Moreover, they are in accordance with previous relevant studies investigating children's recognition of emotions through pictorial vignettes (Del Barrio et al., 2003; Gini, 2006; Perren et al., 2012).

However, subtle differences were observed between the two tools used (scenarios vs drawings) in children's associations of emotions. Specifically, anger was the predominant emotion that children associated with the bullying perpetrator in the emotional scenario, while they chose happiness when asked to portray the emotion of the perpetrator in their drawings. The latter could reveal children's greater ease to depict happiness than anger (Bonoti & Misailidi, 2006; Brechet et al., 2009; Golomb, 1992; Picard & Gauthier, 2012), since the ability to use effectively the strategies needed to express happiness has been found to develop earlier than the ability to depict all other emotions (Cannoni et al., 2021; Cox, 2005; Sayil, 2001). However, despite this well-reported tendency, none of the participants drew a happy target of bullying, showing an increasing awareness of the negative emotions accompanying victimization. This awareness might also explain why less children associated "no emotion" with the targets than with the perpetrators both in the scenarios and in their drawings.

Results also showed that in line with previous research (Brechet et al., 2009; Jolley et al., 2004; Picard et al., 2007), children employed all three types of expressive strategies to denote the emotions of the drawn figures of the bullying episode.

Interestingly, however, the expressive strategies used for the depiction of the associated emotions varied as a function of the depicted role. Specifically, it was found that children relied more on the modification of the facial expression while depicting target than perpetrator of school bullying. Given that literal expression is considered the most direct and probably powerful means to convey the emotion in one's drawing (Cox, 2005; Sayil, 2001), children might have considered sufficient to draw a target with tears or a zig-zag mouth. On the other hand, the emotion of the bullying perpetrator was more often conveyed through the context of the drawing or its formal properties. In this case, children seemed more willing to introduce non-literal strategies which are usually preferred when the emotion to be depicted is easier deciphered when adding details that metaphorically convey it (e.g., by drawing a scene representing the event that triggered the experienced emotion) (Bonoti & Misailidi, 2015; Brechet et al., 2009).

Regarding connections of bullying and victimization to associations of emotions with perpetrators and their targets, our results showed that children who associated relevant emotions with victims on both the scenarios and drawings tended to score higher on Bullying scale, children who associated irrelevant emotions with the perpetrator on the scenarios scored significantly higher on the Victimization and Bullying scales and those who associated relevant emotions with the perpetrator on the drawing task tended to score lower on the Bullying scale. These results are generally in accordance with findings that show targets to have

a lower ability to recognize others' emotions which may increase their risk of being targeting and perpetrators to be more likely to recognize fear to targets, allowing them to be more efficient in performing aggressive behaviors (Ciucci et al., 2014; Guy et al., 2017; Liu et al., 2019; Pozzoli et al., 2017). Differences between scenarios and drawings may be attributed to categorization of perpetrators' and targets' emotions as relevant or irrelevant due to the small number of participants.

Regarding connections of bystanding to understanding of emotions of bullying perpetrators, our results have not revealed possible relationships in either the scenarios or the drawings for reinforcers, assistants, defenders, or outsiders. Similarly, no differences to associations of emotions with targets of school bullying were found among reinforcers and outsiders. On the other hand, participants who associated relevant emotions with targets on the drawing task and relevant emotions on the scenario tended to score higher on Assistant and Defender scales respectively. These results suggest that understanding of emotions of targets may contribute to active bystanding by helping the perpetrator or defending the target, while understanding of emotions of school perpetrators does not seem to contribute to either active or passive bystanding at all. Thus, it seems that students' awareness of targets' emotional distress may enhance affective empathy to aid children interpreting bullying as a distressing event that requires intervention (Fredrick et al., 2020) or alternatively may contribute to perpetrators' support, especially when they identify with the perpetrator's group (Jones et al., 2011; Trash & Hymel, 2020). However, our results should be interpreted with caution since our assessment of participant roles was solely based on self-reports. Furthermore, the measurement of bullying did not include a clear reference to power imbalances and the depiction of the bullying scenario was based on an incomplete characterization of the power imbalance between the perpetrator and victim (i.e., perpetrator's physical strength). Future research should investigate in more detail through a combination of self, peer, and teacher reports how understanding of specific emotions of perpetrators and targets may influence participation in both physical and relational bullying.

Moreover the cross-sectional research design of this study does not permit to draw conclusions regarding causal relationships between understanding perpetrators' and targets' emotions and involvement in bullying. Large-scale longitudinal investigations should be conducted in this area to expand upon the findings of the present study and address topics such as changes in the social environment of schools that could reduce dysfunctional associations of emotions with bullying perpetrators and targets and age or gender differences.

Finally, it should be noted that the scenario used in the present study only reflects one particular type of bullying

behavior. Associations of emotions with perpetrators and/or targets may be different if a different scenario was presented to participants. It does, nonetheless, provide the opportunity to participants to reflect over how those directly involved in bullying incidents feel.

Despite these limitations, taken together, the findings of this study documented the significance of considering a basic skill, namely understanding perpetrators' and targets' specific emotions, for comprehending different behaviors during bullying episodes. To date, this is the first study to offer a global picture on the association between these two variables adopting the participant role approach to school bullying and it aims to represent a basis for future studies. Indeed, several new research questions can arise from the current results. For example, it would be interesting to investigate which individual (e.g., bystanders' affect and attitudes toward perpetrators and targets of school bullying, affective and cognitive empathy) and contextual variables (e.g., class norms, group values) may mediate or moderate the relation between the individual's understanding of perpetrators' and targets' specific emotions and his/her behavior and may, at the same time, help distinguish among different behaviors. Furthermore, knowing which emotion students identify when they fail in associating the correct one may provide new insight on the relation between understanding perpetrators' and targets' emotion and students' bystander behavior. Findings related to children's awareness of the emotions associated to the bullying and victimization experience can be used for the design and implementation of developmentally appropriate intervention programs aiming at promoting prosocial behaviors.

**Funding** Open access funding provided by HEAL-Link Greece. This research received no external funding.

**Data Availability** Data will be made available on request.

## Declarations

**Conflict of Interest** The authors declare no competing interests.

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