

Adolescent Empathy and Conflict Resolution

Assignment 4: Thesis

Associations between Empathy and Four Bullying Roles

Date:	18-06-2012	
Thesis supervisor:	Dr. Skyler T. Hawk	
Group number:	4	
Group members:	Suzanne Meines	3814335
	Anne-Louise van de Poll	3174875
	Mirjam Reijnders	3536688
	Wanda Wouters	3499855

Abstract

Bullying is a common phenomenon that often has negative consequences for victims. Because there is little research on predictors of bullying, and few intervention programs have been successful, this study investigates the relations between empathy and four bullying roles (bully, victim, passive bystander, and active defender). In total, 141 adolescents, aged 13-18, from grades two and four (HAVO) filled in two questionnaires: the Interpersonal Reactivity Index and the Participant Role Questionnaire. Linear regression analyses showed that boys were less empathic, scored higher on bullying and victimization, and lower on active defender behavior than girls. Younger adolescents showed more active defender behavior and were more often victimized than older adolescents. Notably, empathy was significantly related to active defender behavior. Additionally, empathy mediated the relation between gender and active defender behavior. These findings demonstrate the importance of recruiting (female) active defenders in bullying prevention programs, because of their higher levels of empathy.

Keywords: empathy, bullying roles, IRI, PRQ, active defender

Associations between Empathy and Four Bullying Roles

Bullying is currently a serious phenomenon. According to recent cross-sectional research on the prevalence of bullying in eleven European countries (Analitis et al., 2009), an average of 20.6% of children and adolescents aged eight to eighteen years report being bullied. In this research, bullying was defined as "a specific type of aggression in which the behavior is intended to harm or disturb, the behavior occurs repeatedly over time, and there is an imbalance of power, with a person or group perceived as more powerful attacking one perceived as less powerful" (Analitis et al., 2009, p. 569). Recent research has shown that victims generally have lower psychological wellbeing, poorer social adjustment, higher psychological distress, lower physical wellness, and reduced self-esteem and self-efficacy (Juvonen, Graham, & Schuster, 2003; Rigby, 2003; Van der Wal, De Wit, & Hirasing, 2003). Despite the high prevalence of bullying, and potential long-term consequences of victimization, there is little research on possible predictors of bullying, and only few intervention programs have been successful (Vreeman & Carroll, 2007). Most research on bullying has only examined bullies and victims (Oh & Hazler, 2009). But bullying often occurs in the presence of peers, called bystanders (Lodge & Frydenberg, 2005; Nickerson, Mele, & Princiotta, 2008). Recently, scholars have found evidence for different participant roles that each play a unique part in bullying situations, including bullies, victims, defenders, and passive bystanders (Goossens, Olthof, & Dekker, 2006). Defenders are also known as active defenders, because they comfort the victim and actively intervene to stop the bullying (Nickerson et al., 2008). Passive bystanders, in contrast, stay quiet and act as if they do not see what is going on (Craig & Pepler, 2000). These two bystander roles have received little attention, even though they represent the majority of the people who are involved in bullying situations (Nickerson et al., 2008). It is important to investigate the individual and social factors that predict youths' bystander behaviors, because they influence prosocial behavior in classrooms and are useful in school intervention programs (Kärnä, Voeten, Poskiparta, & Salmivalli, 2010; Pöyhönen, Juvonen, & Salmivalli, 2010). Empathy is important for the development of social understanding and prosocial behaviors (Hoffman, 2008; Sekol & Farrington, 2010; Warden & MacKinnon, 2003). It also provides a basis for relationships, coping with stress, and resolving conflict (Schultz, Selman, & LaRusso, 2003). Nevertheless, little research has examined whether empathy predicts these four bullying roles. Therefore, the general aim of this study was to investigate the linear relationships between empathy and the four bullying roles.

Empathy. Empathy can be defined as "an emotional state triggered by another's emotional state or situation, in which one feels what the other feels or would normally be expected to feel in this situation" (Hoffman, 2008, p. 440). Prior research has established links between empathy and the four bullying roles (Barchia & Bussey, 2011; Caravita, Di

Blasio, & Salmivalli, 2009; Coleman & Byrd, 2003; Fox, Elder, Gater, & Johnson, 2010; Gini, Albiero, Benelli, & Altoè, 2007; Gini, Albiero, Benelli, & Altoè, 2008; Goossens et al., 2006; Jolliffe & Farrington, 2004; Pöyhönen et al., 2010; Raskauskas, Gregory, Harvey, Rifshana, & Evans, 2010; Schultze-Krumbholz & Scheithauer, 2009; Stavrinides, Georgiou, & Theofanous, 2010; Warden & MacKinnon, 2003). Empathy consists of several constructs, which are often measured by Davis' (1980) Interpersonal Reactivity Index (IRI). Empathic Concern (EC) refers to feelings of warmth, compassion, and concern for others. Perspective Taking (PT) refers to spontaneous attempts to adopt another person's perspective and see things from their point of view (Davis, 1980; Hoffman, 2008). Personal Distress (PD) refers to aversive, self-focused emotions in reaction to others' distress (Davis & Franzoi, 1991; Hoffman, 2008). EC and PT are positively related with one another, and they are both often negatively related to PD (Barr & Higgins-D'Alessandro, 2009; Gasser & Keller, 2009; Hoffman, 2008).

Empathy, bullying behavior, and victimization. EC and PT have been repeatedly linked with bullying behavior and victimization. According to cross-sectional studies, early adolescent victims have higher EC than non-victims (Coleman & Byrd, 2003), and higher EC and PT than bullies (Raskauskas et al., 2010). In contrast, research on sociometric status and empathy found that early adolescent bullies, cyber-bullies, and victims are less prosocial and have lower EC and PT than non-involved adolescents (Schultze-Krumbholz & Scheithauer, 2009; Warden & MacKinnon, 2003). Longitudinal research on early adolescents further showed negative, bidirectional links between bullying behavior and EC (Stavrinides et al., 2010). It thus seems that EC and PT are negatively linked to bullying behavior. Several studies also state a negative relationship between EC and PT and victimization (Coleman & Byrd, 2003; Raskauskas et al., 2010; Stavrinides et al., 2010).

The direct relationship between PD and the four bullying roles has not yet been studied. However, some factors that have been linked to the four bullying roles, such as prosocial behavior and emotion regulation, are also linked to PD. Two studies have found that people who have higher PD experience more intense negative emotions and have poorer emotion regulation-skills (Eisenberg & Fabes, 1990; Okun, Shepard, & Eisenberg, 2000). Additionally, higher PD, especially in combination with lower PT, was negatively related to prosocial behaviors. Both bullies and victims seem to fit this profile: they tend to have lower PT (Warden & MacKinnon, 2003), poorer emotion regulation skills (Schwartz, 2000), poorer social problem-solving skills, and act in more antisocial ways (Warden & MacKinnon, 2003). Therefore, one might expect that both bullies and victims will have higher PD. This is further supported by research linking PD to higher aggression (Eisenberg, 2000; Hawk et al., in press), and higher aggression is in turn linked to bullying behavior (Fox et al., 2010). In addition, people who experience higher PD tend

to retreat from distressing situations, in order to reduce their own negative state (Batson et al., 1987; Hoffman, 2008). Victims fit this image, because they want to escape distressing situations (Rigby, 2003). Cross-sectional studies also found victims to be more emotionally distressed than non-victims (Juvonen et al., 2003; Schwatz, 2000). Thus, it seems that PD may be positively related to both victimization and bullying behavior.

Empathy, passive bystander, and active defender behavior. Passive bystanders do not act prosocially, but instead tend to stay quiet and act as if they do not see what is going on. Most importantly, they do not intervene to stop the bullying (Craig & Pepler, 2000; Lodge & Frydenberg, 2005). Since longitudinal research (Eisenberg & Fabes, 1998) and a literature review (Hoffman, 2008) have suggested that empathy is positively related to prosocial behavior, one can presume that EC and PT are negatively linked to being a passive bystander. In contrast, one cross-sectional study showed that EC and PT are positively related to passive bystander behavior (Gini et al., 2008). However, this research demonstrated that EC and PT alone are not sufficient to explain passive bystander behavior. Passive bystanders lack a sense of self-efficacy, meaning that they believe that they are not competent to help a victim in distress. So despite their ability to understand and feel what the victim is going through, they do not act because they think it will not make a difference (Gini et al., 2008). This notion is supported by qualitative research, in which passive bystanders stated that they wanted to help a victim out of compassion, but they transferred the responsibility of helping to the teacher or the victims' friends (Thornberg, 2007). Thus, it seems that EC and PT are positively linked to passive bystander behavior.

EC has been repeatedly linked to active defender behavior. Adolescents with higher EC stand up more against bullies (Fox et al., 2010), and tend to be more active in preventing or stopping bullying (Nickerson et al., 2008). This notion is further supported by both longitudinal (Barchia & Bussey, 2011; Goossens et al., 2006) and cross-sectional (Caravita et al., 2009; Pöyhönen et al., 2010; Warden & Mackinnon, 2003) research showing that defending behavior is positively related to EC and prosocial behavior. Additionally, cross-sectional studies found that higher levels of both EC and PT are positively related to active defender behavior (Gini et al., 2007; Gini et al., 2008).

Another line of research has shown that PD, PT, and EC are all positively related to prosocial behavior (Barr & Higgins-D'Alessandro, 2009). This finding contradicts the aforementioned studies reporting a negative relationship between PD and prosocial behavior (Eisenberg & Fabes, 1990; Hawk et al., in press; Okun et al., 2000). This contradiction can be explained by Hoffman's (2008) theory on PD. According to this theory, persons who experience PD are more willing to help a victim and act prosocially, because this will reduce their own PD. On the other hand, experiencing high PD can

become so aversive that it leads to empathic over arousal. This means that the PD is too high to handle. This causes people to act in antisocial ways by shifting their attention to their own distress instead of the victims' distress, leaving the victim, or trying to think of other things to erase the image of the victim. Therefore, higher PD seems to be negatively related to prosocial behavior, whereas low to moderate PD seems to be positively related to prosocial behavior (Hoffman, 2008). Hoffman's theory corresponds with passive bystander or active defender behavior. Passive bystanders do not act in prosocial ways, because of a lack of confidence, a lack of problem solving skills, or fear of becoming the next victim of the bully (Craig & Pepler, 2000; Lodge & Frydenberg, 2005). Passive bystanders ignore the distress of victims, and instead focus on handling their own PD (Hoffman, 2008). Therefore, it seems that PD is positively related to passive bystander behavior. On the contrary, active defenders do tend to act in prosocial ways, by comforting and standing up for victims, and attempting to resolve conflicts (Goossens et al., 2006; Nickerson et al., 2008). They use their popular status to communicate disapproval of bullying and thereby lower the status of the bully (Kärnä et al., 2010; Pöyhönen et al., 2010). Therefore, it seems that PD is negatively related to active defender behavior.

Age. In general, it seems that the empathy constructs change over time. From early to middle adolescence, PT and EC tend to increase, whereas PD tends to decrease (Barr & Higgins-D'Alessandro, 2009; Davis & Franzoi, 1991). This maturation process suggests that, since empathy increases, bullying behavior and victimization will probably decrease with age. Indeed, cross-sectional findings indicate that bullying occurs less frequent at age sixteen than at age eight (Smith, Madsen, & Moody, 1999), and adolescents use more cooperative strategies to resolve conflicts than younger children (Noakes & Rinaldi, 2006). However, adolescence is a period characterized by physical, emotional, and relational changes, which are associated with increases in aggressive behavior and peer victimization (Pellegrini, 2002). This suggests that, despite the increase of empathy and the decrease of bullying and victimization, peer conflict is still a problematic issue during adolescence. This is supported by longitudinal studies suggesting that victimization and bullying behavior stabilize from childhood to adolescence (Scholte, Engels, Overbeek, De Kemp, & Haselager, 2007; Sourander, Helstela, Helenius, & Piha, 2000). This stabilization was clarified in a longitudinal study, in which adolescents indicated that they assert aggression from both a bullying and a victimization role (Williford, Brisson, Bender, Jenson, & Forrest-Bank, 2011). Little research has been conducted on whether the links between empathy and passive bystander or active defender behavior, respectively, are moderated by age. One study found that younger adolescents display more defender behavior than older adolescents (Barchia & Bussey, 2011), but most studies have included only early adolescents. Thus,

the link between age and the four bullying roles remains unclear. The current study will address this unclear issue.

Gender. Regarding gender, many studies suggest that girls have higher levels of EC and PT than boys (Gini et al., 2008; Hawk et al., in press; Hoffman, 2008; Jolliffe & Farrington, 2006; Woods, Hall, Dautenhahn, & Wolke, 2007; Woods, Wolke, Nowicki, & Hall, 2009). Several studies have found that girls also experience higher levels of PD (Davis, 1983; Hawk et al., in press; Smith & Rose, 2011). It also seems that girls are more likely to be victimized (Sekol & Farrington, 2010; Warden & MacKinnon, 2003), whereas boys are more likely to display bullying behavior (Kokkinos & Kipritsi, 2012). Boys seem to care less about someone else's distress, whilst girls seem more likely to help a victim (Oh & Hazler, 2009). In contrast, two cross-sectional studies found that the positive correlations between defending behaviors and EC and PT, respectively, were stronger for boys than for girls, especially popular boys (Caravita et al., 2009; Gini et al., 2007). These studies imply a moderator effect of gender on the relationship between empathy and the four bullying roles. However, one cross-sectional study showed that gender did not significantly predict passive bystander behavior (Nickerson et al., 2008). According to the aforementioned findings, it remains unclear whether and how gender is linked to the bullying roles of interest to the present research. The current study will address this issue.

Current study. The current study aims to further investigate the associations between empathy and the four bullying roles. Based on previous findings concerning bullies, the first hypothesis states that EC and PT are negatively related to bullying behavior, and that PD are positively related to bullying behavior. Based on previous findings concerning victims, the second hypothesis states that EC and PT are negatively related to victimization, and that PD are positively related to victimization. Based on previous findings concerning passive bystanders, the third hypothesis states that EC, PT, and PD are positively related to passive bystander behavior. Based on previous findings concerning active defenders, the fourth hypothesis states that EC and PT are positively related to active defender behavior, and that PD is negatively related to active defender behavior. Because of the inconsistent findings regarding the relationship between the four bullying roles and gender, and because of the lack of research on older adolescents, the factors gender and age will be controlled for in the analysis of the data.

Method

Sample. A total of 141 Dutch adolescents (68 females, 73 males) participated in this study. They were attending second- or fourth-level HAVO classes, which is above the Dutch average educational level and Social Economic Status (SES; CBS, 2011). In total, three second-level HAVO school classes and three fourth-level HAVO school classes participated (mean class size = 23.5 students, range: 17-29). At the time of the study,

the mean age of the sample was 14.94 years ($SD = 1.44$, range: 13-18). In terms of ethnic background, six adolescents (4.25%) indicated that they had a non-Dutch ethnic background. Family situation was not assessed, thus the general family structure of participants remains unknown.

Measures

Empathy. The Interpersonal Reactivity Index (IRI) (Davis, 1980) was used to measure self-reported scores on the three empathy constructs. The IRI originally consists of 28 items that are equally divided over four subscales to measure participants' EC, PT, PD and Fantasy. However, the subscale 'Fantasy' (7 items) was removed because of its irrelevance in the current study. Therefore, a total of 21 items consisting of three subscales remained: (1) the EC subscale was used to measure the participants' empathic concern for others (e.g. *"I often have tender, concerned feelings for people less fortunate than me"*); (2) the PT subscale was used to measure the participants' ability to take the perspective of others (e.g. *"I sometimes try to understand my friends better by imagining how things look from their perspective"*); and (3) the PD subscale was used to measure the participants' own distress as a reaction to others' distress (e.g. *"When I see someone who badly needs help in an emergency, I go to pieces"*). The items were answered on a 5-point Likert scale, ranging from 1 (*not true for myself*) to 5 (*true for myself*). Multiple studies have suggested construct validity of the IRI (Barr & Higgins-D'Alessandro, 2009; Davis, 1980; De Corte et al., 2007; Gini et al., 2008; Hawk et al., in press). Several studies have demonstrated the reliability of the separate subscales (Barr & Higgins-D'Alessandro, 2009; Davis, 1980; De Corte et al., 2007). In the current study, all scales showed sufficient reliability scores: EC ($\alpha = .67$), PT ($\alpha = .64$), PD ($\alpha = .76$).

Bullying roles. The Participant Role Questionnaire (PRQ) (Salmivalli, Lagerspetz, Blörkvist, Österman, & Kaukiainen, 1996) was used to measure self-reported participant roles in bullying situations. The PRQ originally consists of 48 items that are divided over five subscales to measure participants' roles in bullying situations. However, the reinforcer subscale (seven items) and the assistant subscale (four items) were removed because of their irrelevance in the current study. Additionally, the victim subscale from the Bullying, Fighting and Victimization Scale (Espelage & Holt, 2001) was added to this questionnaire. Therefore, a total of 41 items consisting of four subscales remained: (1) the Bully subscale (10 items) measured whether participants tend to bully others (e.g. *"I often start bullying"*); (2) the Victim subscale (four items) measured whether participants are bullied by others (e.g. *"Peers make fun of me"*); (3) the Passive Bystander subscale (seven items) measured whether participants tend to ignore or escape a bullying situation (e.g. *"I pretend I do not notice what is happening when someone is being bullied"*); and (4) the Active Defender subscale (twenty items) measured whether participants tend to defend victims (e.g. *"I attack the bully in order to defend the*

victim"). The items were answered on a five-point Likert scale, ranging from 1 (*never*) to 5 (*always*). Multiple studies have suggested the construct validity of the PRQ (Goossens et al., 2006; Salmivalli et al., 1996; Schäfer & Korn, 2004). One study suggests the construct validity of the victim subscale from the Bullying, Fighting and Victimization Scale (Birkett, Espelage, & Koenig, 2009). Several studies have confirmed the reliability of the separate subscales (Birkett et al., 2009; Espelage & Holt 2001; Goossens et al., 2006). All scales except the passive bystander scale showed acceptable reliability in the current study: Bully ($\alpha = .76$), Victim ($\alpha = .81$), Passive Bystander ($\alpha = .49$), Active Defender ($\alpha = .92$).

Procedure. To recruit participants, a stratified cluster sample was used, stratifying on city size. Three cities were selected by convenience sampling (cities close to where the researchers lived), due to time and money constraints: a large city and two small cities. In these cities, the researchers initially approached a secondary school for participation. Two of the schools were not willing to participate, therefore the researchers approached two other secondary schools for cooperation. This process was repeated until one school in every city was found that was willing to cooperate. Next, from each school, two general HAVO classes (second and fourth grade) were randomly chosen by either the schools' headmasters or the HAVO teachers. In the small city of Ermelo, the Groevenbeek School was selected. In the small city of Elburg, the Lambert Franckens College was selected. In the large city of Den Haag, the Maerlant College was selected.

The researchers received permission from the schools' headmasters to conduct the survey. One week before the survey was conducted, the researchers informed the students about the research and gave the students a consent form, through which parents could object to the participation of their child in the research. The adolescents themselves also were given the possibility to refuse participation, even if they had already started filling in the questionnaire. No parents refused permission for their child to participate in the research, and no participants refused to fill in the questionnaire. No participants were excluded from the analyses because of missing data.

Instruction. The researchers told the participants they were about to receive a questionnaire about their thoughts and feelings. Information was provided about the estimated time it would take to fill in the questionnaire (10 minutes), and how answers could be adjusted if a respondent wanted to change a given answer. Again, anonymity of the responses was emphasized. The participants received a candy bar as compensation.

Strategy of Analysis

The relations between empathy and the four bullying roles were analyzed in SPSS. First, the mean scores of the bully role scales and the empathy scales were calculated and transformed into standardized z-scores. Next, dummy variables were made for gender; boys were coded as "0" and girls were coded as "1". Using an ANOVA,

differences in mean scores between boys and girls on the other standardized variables were tested. Also, a correlation analysis of the other standardized variables was conducted. The relations between empathy and the four bullying roles were analyzed by using a linear regression analysis that included four different models. The dependent variable was one of the bullying roles. In model 1, gender and age were added as independent variables. In model 2, EC, PT, and PD were added as independent variables. In model 3, 2-way interactions between gender and the empathy constructs, and 2-way interactions between age and the empathy constructs were added as independent variables. In model 4, 3-way interactions between gender, age and the empathy constructs were added. Whenever separate variables appeared to be significant predictors, additional models were set up to test whether one of these additional models provided a better fit to the data^{1,2,3}.

Results

The aim of this study was to investigate the relations between EC, PT, and PD, and bullying behavior, victimization, passive bystander, and active defender behavior. Previous findings led to the following hypotheses: EC and PT are negatively related to bullying behavior, and PD is positively related to bullying behavior; EC and PT are negatively related to victimization, and PD positively related to victimization; EC, PT, and PD are positively related to passive bystander behavior; EC and PT are positively related to active defender behavior, and PD is negatively related to active defender behavior.

Descriptive statistics

On average, participant scores on the empathy constructs were highest on EC ($M = 3.346$, $SD = .560$), followed by PT ($M = 3.120$, $SD = .595$), and lowest on PD ($M = 2.708$, $SD = .696$). Participant scores on the four bully roles were highest on passive bystander behavior ($M = 2.716$, $SD = .517$), followed by active defender behavior ($M = 2.576$, $SD = .710$), victimization ($M = 1.521$, $SD = .675$), and bullying behavior ($M = 1.458$, $SD = .415$). These results are displayed in Table 1.

Correlations

A one-way ANOVA revealed a significant gender difference in EC scores ($F(1,139) = 46.254$, $p < .001$), in which girls ($M = 3.635$, $SD = .538$) scored higher on EC than boys ($M = 3.076$, $SD = .434$). There was also a significant gender difference in PT scores ($F(1,139) = 11.623$, $p = .001$), in which girls ($M = 3.290$, $SD = .595$) scored higher on PT than boys ($M = 2.961$, $SD = .552$). There was also a significant gender difference in PD scores ($F(1,139) = 18.359$, $p < .001$), again with girls ($M = 2.954$, $SD = .656$) scoring higher than boys ($M = 2.480$, $SD = .657$).

There was also a significant gender difference in bullying behavior ($F(1,139) = 22.753$, $p < .001$), with boys ($M = 1.607$, $SD = .440$) scored higher than girls ($M = 1.297$, $SD = .317$). There was also a significant gender difference in victimization

($F(1,139) = 7.039, p = .009$), again with boys ($M = 1.663, SD = .737$) scoring higher than girls ($M = 1.368, SD = .569$). Finally, we also found a significant gender difference in active defender behavior ($F(1,139) = 9.118, p = .003$), with girls ($M = 2.759, SD = .773$) scoring higher than boys ($M = 2.407, SD = .602$). Notably, there was no significant gender difference in passive bystander behavior ($F(1,139) = .407, p = .534$).

Correlations between the other variables are displayed in Table 1. Age was significantly and negatively related to both victimization ($r = -.198, p = .019$), and active defender behavior ($r = -.215, p = .010$). Thus, younger adolescents scored higher on victimization and active defender behavior than older adolescents. Age was not significantly related to EC ($r = .003, p = .972$), PT ($r = .064, p = .452$), PD ($r = -.054, p = .522$), bullying behavior ($r = -.016, p = .846$), or passive bystander behavior ($r = -.083, p = .33$). Regarding correlations between the empathy dimensions, EC was significantly and positively related to both PT ($r = .467, p < .001$), and PD ($r = .433, p < .001$). Thus, adolescents who scored higher on EC also scored higher on PT and PD. PT and PD were not significantly related ($r = .069, p = .419$).

Bullying behavior was significantly and positively related to victimization ($r = .263, p = .002$), and significantly and negatively related to passive bystander behavior ($r = -.181, p = .032$). Passive bystander behavior was significantly and negatively related to active defender behavior ($r = -.238, p = .004$). Thus, adolescents who scored higher on bullying behavior also scored higher on victimization, but they scored lower on passive bystander behavior. Further, adolescents who scored higher on passive bystander behavior scored lower on active defender behavior.

Regarding correlations between the empathy dimensions and bullying roles, EC was significantly and negatively related to both bullying behavior ($r = -.239, p = .004$) and victimization ($r = -.166, p = .049$), and positively related to active defender behavior ($r = .403, p < .001$). Thus, adolescents who scored higher on EC also scored higher on active defender behavior, but they scored lower on bullying behavior and victimization. EC was not significantly related to passive bystander behavior ($r = -.001, p = .99$). PT was significantly and positively related to active defender behavior ($r = .381, p < .001$). Thus, adolescents who scored higher on PT also scored higher on active defender behavior. PT was not significantly related to bullying behavior ($r = -.157, p = .063$), victimization ($r = -.088, p = .298$), or passive bystander behavior ($r = -.106, p = .209$). PD was not significantly related to bullying behavior ($r = -.134, p = .114$), victimization ($r = .015, p = .861$), passive bystander behavior ($r = .138, p = .102$), or active defender behavior ($r = .012, p = .884$).

Links between Empathy Constructs and Bullying Roles

Links between empathy and bullying behavior. In order to test the hypothesized links between empathy and bullying behavior, a linear regression analysis

was conducted in which bullying behavior was predicted by four different models. The results of this analysis are displayed in Table 2. The first model, which included age and gender, explained a small but significant amount of variance of bullying behavior ($R^2 = .141, p < .001$). Gender was the only significant predictor in this model ($\beta = -.375, p < .001$), suggesting that boys were more likely to display bullying behavior than girls. Thus, gender significantly predicted bullying behavior. The empathy constructs were added in the second model. The amount of variance explained by this model did not increase significantly ($\Delta R^2 = .005, p = .862$). In order to investigate possible interaction effects, 2-way interactions involving age and gender were added in the third model. The amount of variance explained by this model again did not increase significantly¹ ($\Delta R^2 = .059, p = .152$). In the fourth model, 3-way interactions between gender, age and the empathy constructs were added. The amount of variance explained by this model again did not increase significantly ($\Delta R^2 = .005, p = .832$). Based on these results, the predictions regarding links between bullying behavior and the three empathy dimensions were not supported.

Links between empathy and victimization. In order to test the hypothesized links between empathy and victimization, a linear regression analysis was conducted in which victimization was predicted by four different models. The results of this analysis are displayed in Table 3. The first model, in which age and gender were added as predictors, explained a small but significant amount of variance in victimization ($R^2 = .087, p = .002$). Both age ($\beta = -.196, p = .017$) and gender ($\beta = -.218, p = .008$) were significant predictors in this model. The negative linear relationship between age and victimization suggests that younger adolescents were more likely to display victimization. Boys were more likely to experience victimization than girls. Thus, both age and gender significantly predicted victimization. The empathy constructs were added in the second model, but the amount of explained variance did not increase significantly ($\Delta R^2 = .018, p = .453$). In order to investigate possible interaction effects, 2-way interactions involving age or gender were added in the third model. The amount of variance explained by this model again did not increase significantly ($\Delta R^2 = .027, p = .669$). In the fourth model, 3-way interactions between gender, age and the empathy constructs were added. The amount of variance explained by this model again did not increase significantly ($\Delta R^2 = .004, p = .906$). Based on these results, the predictions regarding links between victimization and the three empathy dimensions were not supported.

Links between empathy and passive bystander behavior. In order to test the hypothesized links between empathy and passive bystander behavior, a linear regression analysis was done in which passive bystander behavior was predicted by four different models. The results of this analysis are displayed in Table 4. In the first model, which added age and gender as predictors, did not explain a significant amount of

variance in passive bystander behavior ($R^2 = .010, p = .511$). In the second model, the empathy constructs were added. The amount of variance explained by this model did not increase significantly ($\Delta R^2 = .034, p = .194$). In order to investigate possible interaction effects, 2-way interactions involving age or gender were added in the third model. The amount of variance explained by this model again did not increase significantly ($\Delta R^2 = .038, p = .507$). In the fourth model, 3-way interactions between gender, age and the empathy constructs were added. The amount of variance explained by this model again did not increase significantly, it even showed a slight decrease ($\Delta R^2 = .032, p = .210$). Based on these results, predictions regarding links between passive bystander behavior and the three empathy dimensions were not supported.

Links between empathy and active defender behavior. In order to test the hypothesized links between empathy and active defender behavior, a linear regression analysis was conducted in which active defender behavior was predicted by four different models. The results of this analysis are displayed in Table 5. The first model, which included age and gender, explained a small but significant amount of variance in active defender behavior ($R^2 = .109, p < .001$). Both age ($\beta = -.217, p = .008$) and gender ($\beta = .251, p = .002$) were significant predictors. Girls were more likely to report active defender behavior than boys. The negative linear relationship between age and active defender behavior suggests that younger adolescents were more likely to display active defender behavior. Thus, both age and gender significantly predicted active defender behavior.

The empathy constructs were added in the second model. The amount of variance explained by this model increased significantly ($\Delta R^2 = .184, p < .001$), but was still relatively small. EC appeared to be a significant predictor of active defender behavior ($\beta = .338, p = .001$); this was the strongest association in comparison to the other empathy constructs. This positive linear relationship suggests that adolescents who experienced higher levels of EC also tended to report higher levels of active defender behavior. PT also appeared to be a significant predictor of active defender behavior ($\beta = .228, p = .007$). This positive linear relationship suggests that adolescents who reported higher levels of PT also tended to report higher levels of active defender behavior. PD also appeared to be a significant predictor of active defender behavior ($\beta = -.191, p = .022$). This negative linear relationship suggests that adolescents who experienced higher levels of PD reported lower levels of active defender behavior. Furthermore, age continued to be a significant predictor of active defender behavior. This again suggests that younger adolescents were more likely to display active defender behavior. In contrast with the former model, gender was no longer a significant variable. In order to investigate possible interaction effects, 2-way interactions involving age or gender were added in the third model. The amount of variance explained by this model did not

increase significantly⁴ ($\Delta R^2 = .031, p = .438$). In the fourth model, 3-way interactions between gender, age and the empathy constructs were added. The amount of variance explained by this model again did not increase significantly ($\Delta R^2 = .006, p = .761$). Thus, in line with hypotheses, EC, PT, and PD significantly predicted active defender behavior (model 2), as did age.

Empathy constructs as mediators between gender and active defender behavior. After the empathy constructs were added in model 2, the effect of gender on active defender behavior disappeared. Although we did not predict such an effect, this suggests that gender differences in the empathy constructs might help to explain the gender differences in active defender behavior. In order to examine this possible mediator effects of the different empathy constructs on the link between gender and active defender behavior, calculations were done using the Sobel Test (Preacher & Hayes, 2004; Preacher & Hayes, 2008). Relations between gender and EC, PT, and PD were first entered (respectively $\beta = .996, p < .001$; $\beta = .553, p = .001$; $\beta = .682, p < .001$), then the relations between the empathy constructs and active defender behavior were entered (see Table 5a, model 2). The relationship between gender and active defender behavior was indeed mediated by EC (*Sobel* = 3.074, *SE* = .110, $p = .002$), PT (*Sobel* = 2.135, *SE* = .053, $p = .033$), and PD (*Sobel* = -2.028, *SE* = .064, $p = .043$). Thus, gender differences in the empathy constructs helped to account for the gender differences in active defender behavior that were initially found in model 1.

Discussion

The aim of the current study was to extend the knowledge on adolescent empathy and different roles in bullying situations. Based on prior research, four hypotheses were formulated. Previous findings concerning bullies indicate that EC and PT are negatively related to bullying behavior, and that PD is positively related to bullying behavior. Previous findings concerning victims indicate that EC and PT are negatively related to victimization, and that PD is positively related to victimization. Previous findings concerning passive bystanders indicate that EC, PT, and PD are positively related to passive bystander behavior. Finally, previous findings concerning active defenders indicate that EC and PT are positively related to active defender behavior, and that PD is negatively related to active defender behavior. Only the fourth hypothesis was confirmed. Thus, according to the current study, adolescents who reported more active defender behavior also had higher levels of EC and PT, and had lower levels of PD. This study is the first to investigate the direct relations between PD and the four bullying roles, thereby extending the existing literature.

Relations between Empathy and Bullying Behavior

The first aim of this study was to investigate the relations between EC, PT and PD and bullying behavior. According to the current study, EC, PT, and PD were not

significantly related to bullying behavior. This is not in accordance with prior research that suggested a negative relation between EC and PT and bullying behavior (Schultze-Krumbholz & Scheithauer, 2009; Stavrinides et al., 2010; Warden & MacKinnon, 2003), and a positive relation between PD and bullying behavior (Eisenberg & Fabes, 1990; Okun et al., 2000; Warden & MacKinnon, 2003). A possible explanation is that the small sample size led to lower power levels than was necessary to find an interaction.

A possible explanation for EC, PT and PD not being related to bullying behaviors in the current study can be found in the research of Analitis and colleagues (2009). This study suggests that bullying behavior is negatively related to Social Economic Status (SES). The current study only investigated adolescents with relatively high SES, who, according to Analitis and colleagues (2009), display less bullying behavior. This homogeneous sample of above average SES respondents could have biased the results, in terms of there being a relatively low prevalence of bullying. Indeed, next to victims, the lowest scores were found on bullying behavior. This floor effect indicates that there was little variance in the bullying sample and thereby decreasing the chance of finding significant results. Future research should use a heterogeneous sample that is more representative for the population in terms of educational level and SES.

Further, several previous studies have suggested that boys are more likely to engage in bullying behavior (Kokkinos & Kipritsi, 2012). This is in accordance with the findings of the current study. The only significant predictor of bullying behavior appeared to be gender, with boys scoring higher on the bullying scale than girls. Even though the amount of variance explained by gender was small, this finding is important for school prevention programs, especially when one considers that few of these programs have shown to be effective (Vreeman & Carroll, 2007). These prevention programs should focus more on boys than on girls, in order to be more efficacious in preventing bullying.

Relations between Empathy and Victimization

The second aim of this study was to investigate the relations between EC, PT and PD and victimization. Prior research suggested a negative relation between EC and PT and victimization (Coleman & Byrd, 2003; Raskauskas et al., 2010; Stavrinides et al., 2010), and a positive relation between PD and victimization (Eisenberg & Fabes, 1990; Okun et al., 2000; Warden & MacKinnon, 2003). These relations were not confirmed in the current study. However, our non-significant results could be due to the fact that the current study only investigated the direct relations between empathy and victimization, instead of comparing these scores to the scores of a control group. Prior studies using control groups (Coleman & Byrd, 2003; Raskauskas et al., 2010; Schultze-Krumbholz & Scheithauer, 2009; Warden & Mackinnon, 2003) did find significant differences in empathy between adolescents who were victimized and adolescents in the control groups, thereby indicating that empathy can indeed predict whether or not adolescents

are victimized. Future research should address this issue by comparing victimized adolescents with control groups on empathy scores.

Prior research suggested a positive relation between PD and victimization. Although the direct relation between victimization and PD has never been established, prior research did indicate that persons with high PD display similar behaviors as victimized persons (Eisenberg & Fabes, 1990; Hoffman, 2008; Juvonen et al., 2003; Okun et al., 2000; Rigby, 2003; Schwartz, 2000; Warden & MacKinnon, 2003;), thereby suggesting a positive link between victimization and PD. However, this relation was not confirmed by the results of the current study. A possible explanation is that the behaviors that are similar to persons with high PD and victimized persons moderate or mediate the relation between empathy and victimization. Future research should investigate the role of, for example, negative emotions and emotion regulation skills.

The current study found that boys are more likely to report both victimization and bullying behavior than girls, which is not in line with what was expected based on prior research (Sekol & Farrington, 2010; Warden & MacKinnon, 2003). A possible explanation for these high scores of boys on both roles comes from longitudinal studies, indicating that many students continuously shift between these two roles (Sekol & Farrington, 2010; Williford et al., 2011). In addition, results from the current study showed that bullying behavior was positively related to victimization. This phenomenon could be another alternative explanation why the current research did not find any significant relations between empathy and victimization and bullying, respectively. Because of the high contradiction between bullying behavior and victimization, respondents might have scored themselves less high on both roles, which could have led them to over-report or under-report their victimization and bullying behavior. Indeed, in the current study, the lowest scores were found on the victim scale, followed by the bully scale. This floor effect indicates that there were little variance in the victimization and bullying sample, thereby decreasing the chance of finding significant results. Future research should consider this interaction and overlap between these two bullying roles, for example by investigating their developmental trajectories, or by using a person-centered method to investigate unique factors that explain behavior. Previous cross-sectional research addressed this issue by clustering adolescents in different groups, namely bullies, victims, and bullies who are also victims (Sekol & Farrington, 2010). This study examined whether belonging to one of these groups is temporary or dynamic, and what characteristics are typical for these groups. It is important to ascertain which role these so-called bully-victims adopt most of the time and for how long, because school intervention programs can use this information to recognize these adolescents. Future research should establish the direction of the relationship between bullying behavior and

victimization, in order to clarify whether bullying behavior is a precursor of victimization or vice-versa.

In the current study, younger adolescents were more likely to experience victimization than older adolescents. This finding is in line with prior research (Smith et al., 1999). Since victimization can have negative long term consequences on adolescents' wellbeing (Rigby, 2003; Vreeman & Carroll, 2007), future research should focus on whether age moderates the relation between intervention programs and their outcomes.

Relations between Empathy and Passive Bystander Behavior

The third aim of the current study was to investigate the relations between EC, PT, and PD and passive bystander behavior. According to the current study, EC, PT, and PD were not significantly related to passive bystander behavior. This is not in line with prior research suggesting a positive relation between EC, PT, and PD, and passive bystander behavior (Gini et al., 2008; Hoffman, 2008). With respect to EC and PT, an explanation for the non-significant findings in the current study could be that EC and PT alone are not sufficient to fully explain passive bystander behavior (Gini et al., 2008). More factors are needed to explain passive bystander behavior, such as a lack of sense of self-efficacy (Gini et al., 2008; Thornberg, 2007), a lack of confidence, a lack of problem solving skills, a fear of becoming the next victim of the bully (Lodge & Frydenberg, 2005), current relationship with bullies and victims, or past experiences as a bully or a bully-victim (Oh & Hazler, 2009). The fact that these extra factors are needed to explain passive bystander behavior may also explain why PD alone was not a sufficient predictor in the current study. Future research should take note of the aforementioned factors when investigating the possible predictors of passive bystander behavior.

Relations between Empathy and Active Defender Behavior

The fourth aim of the current study was to investigate the relations between EC, PT, and PD and active defender behavior. Prior research suggests positive relations between EC, PT, and active defender behavior (Barchia & Bussey, 2011; Caravita et al., 2009; Fox et al., 2010; Gini et al., 2007; Gini et al., 2008; Goossens et al., 2006; Nickerson et al., 2008; Pöyhönen et al., 2010; Warden & Mackinnon, 2003), and a negative relation between PD and active defender behavior (Eisenberg & Fabes, 1990; Hawk et al., in press; Hoffman, 2008; Okun et al., 2000). The findings of the current study supported these prior results. As predicted, adolescents who reported higher active defender behavior also reported higher EC and PT, and lower PD. These findings contribute not only to the research on bullying roles and empathy, but also to research on bullying prevention programs. To date, few of these programs have been effective (Vreeman & Carroll, 2007). Prior research has shown, however, that active defenders have high levels of empathy that triggers them to act in prosocial ways and to use problem solving strategies when confronted with a bullying situation. Therefore, active

defenders can reduce the risk for victimization in classrooms, and they can be deployed in school prevention programs (Kärnä et al., 2010; Pöyhönen et al., 2010). The current study suggests that adolescents who display active defender behavior also have high levels of empathy. Deploying active defenders in school prevention programs might thus have an empathy-enhancing effect on the entire classroom, and may reduce subsequent victimization and bullying behavior. Future prevention programs should investigate these possibilities further.

Regarding age, prior research has reported inconsistent findings. On the one hand, prior longitudinal research found that younger adolescents are more likely to display active defender behavior than older adolescents (Barchia & Bussey, 2011). On the other hand, EC and PT are found to increase during adolescence, and PD is found to decrease (Barr & Higgins-D'Alessandro, 2009; Davis & Franzoi, 1991), suggesting that active defender behavior increases during adolescence. Furthermore, older adolescents tend to answer questionnaires about affect and personality, such as the IRI (Davis, 1980), in a more socially desirable manner than younger adolescents (Soubelet & Salthouse, 2011), which also implies that older adolescents would report more empathy than younger adolescents. The results of the current study help to clarify this contradiction. In line with Barchia and Bussey (2011), we found that younger adolescents were more likely to report active defender behavior than older adolescents. According to Barchia and Bussey suggest that older adolescents have more self efficacy but less collective efficacy beliefs and that "[...] collective efficacy beliefs are more important in accounting for defending behavior over time than individual self-efficacy beliefs associated with defending." (Barchia & Bussey, 2011, p. 294). This then implies that older adolescents do not intervene in a bullying situation, because they believe they are not supported in doing so. Longitudinal research on this topic is needed, in order to clarify the developmental patterns of adolescent active defender behavior and empathy.

Prior research has reported consistent findings on the relationship between gender and the empathy constructs, but inconsistent findings on the relationship between gender and active defender behavior. Initially, the current study found that girls were more likely to display active defender behavior than boys, which is in line with prior research suggesting that girls are more likely to help a victim (Oh & Hazler, 2009). However, the relation between gender and active defender behavior disappeared when the empathy constructs were taken into account. Further analysis revealed that the relationship between gender and active defender behavior was mediated by the empathy constructs, meaning that gender differences in the empathy constructs accounted for the relation between gender and active defender behavior. Although these findings are in accordance with prior research suggesting that girls experience higher levels of EC and PT than boys (Gini et al., 2008; Hawk et al., in press; Hoffman, 2008; Jolliffe & Farrington, 2006; Smith

& Rose, 2011; Woods et al., 2007; Woods et al., 2009), the current study is the first to demonstrate this mediating relationship. School-based intervention programs should use this knowledge by mainly recruiting girls because of their higher levels of empathy. These programs should also focus on enhancing empathy in boys.

Limitations

This study holds some noteworthy methodological limitations. First, there are limitations concerning the sampling method. Due to the small sample size, and because respondents were mostly Caucasian adolescents with a relatively high educational level, the results of this study have less external validity and the sample frame is less representative for the population. The use of whole school classes led to a non-random stratified cluster sample, consisting of groups with unique characteristics and interactions that are not representative of the population. Therefore, the results of the current study cannot be generalized more broadly. Furthermore, the small sample size led to more total survey errors, lower power and effect sizes, and a larger probability of a type two error. Finally, due to the cross-sectional design, causal conclusions cannot be made. Future research should be longitudinal, and should focus on more heterogeneous groups in both ethnicity and educational level, have a larger sample size, and use a random sample frame.

Second, there are some limitations concerning the questionnaire. The passive bystander scale appeared to be unreliable, leading to lower content validity and therefore less internal validity. Furthermore, the victim scale showed the lowest scores, followed by the bully scale, which indicates that the respondents in this study had limited experiences with either constructs. An explanation of these low scores could be that respondents underreported their behavior because of social desirability (Soubelet & Salthouse, 2011). Alternatively, the respondents may not have been aware of the negative behavior that they show, or that they are exposed to. Interestingly, longitudinal research suggests that many students experience aggression from both a perpetration and a victimization role during early and middle adolescence (Sekol & Farrington, 2010; Williford et al., 2011). In accordance, results from the current study showed that bullying behavior was positively related to victimization. Still, the current study looked at bullying and victimization as dichotomous roles, but this could be a false dichotomy, since the overlap between the two roles could be rather large. Future research should take this overlap between bullies and victims into account by using a person-centered method, which implies looking at the characteristics of individuals instead of trying to divide individuals in groups. Furthermore, there are some limitations concerning the contents of the questionnaire. During the conduction of the surveys, it appeared that some definitions were unclear, especially for the younger respondents. This raises the question whether the questionnaire was appropriate for both younger and older adolescent age groups. One

recent study by Hawk and colleagues (in press) addressed this issue of psychometric consistency and construct validity, and found that Davis' (1980) IRI is valid for both early and late adolescents. Thus, the IRI seems appropriate for both age groups. Finally, this research only used respondents' self-report measures. However, using one source to draw conclusions on could lead to biased findings. Using additional measures, such as teacher reports, observations and peer-reports, leads to more reliable results (Landsheer, 't Hart, De Goede, & Van Dijk, 2010; Robson, 2002).

Third, the current study implies that there is a static relation between the empathy constructs and behavior that characterizes the four bullying roles. However, a static relationship between empathy and behavior cannot exist, because behavior is fluent and it is influenced by both personal and environmental factors (Bronfenbrenner & Ceci, 1994; Oh & Hazler, 2009). Adolescents are going through a process of developing their personality (McCrae, 2002), which emphasizes the importance of taking a broader look at the dynamic relations between individuals and their environment in this period of life. Future research should therefore not only investigate empathy as a predictor, but also other personal and environmental influences.

Conclusion

The current study was the first to investigate the direct relations between EC, PT PD, and the four bullying roles, as constructed by Goossens and colleagues (2006). Results of the current study suggested that girls display higher empathy scores than boys, and that boys display more bullying behavior and victimization than girls. In addition, younger adolescents were more often victimized and displayed more active defender behavior than older adolescents. Finally, the empathy constructs significantly predicted active defender behavior, meaning that adolescents who scored higher on active defender behavior also scored higher on EC and PT, and scored lower on PD. Because of their high levels of empathy and their prosocial behavior, active defenders can reduce the risk for victimization in classrooms, and can therefore effectively be deployed in school prevention programs (Kärnä et al., 2010; Pöyhönen et al., 2010; Warden & Mackinnon, 2003). Furthermore, this study demonstrates the particular importance of recruiting female active defenders, because girls score higher on the empathy constructs, and because they display more active defender behavior.

References

- Analitis, F., Klein Velderman, M., Ravens-Sieberer, U., Detmar, S., Erhart, M., Herdman, M., ... Rajmil, L. (2009). Being bullied: Associated factors in children and adolescents 8 to 18 years old in 11 European countries. *Pediatrics, 123*, 569-577. doi:10.1542/peds.2008-0323
- Barchia, K., & Bussey, K. (2011). Predictors of student defenders of peer aggression victims: Empathy and social cognitive factors. *International Journal of Behavioral Development, 35*, 289-297. doi:10.1177/0165025410396746
- Barr, J. J., & Higgins-D'Alessandro, A. (2009). How adolescent empathy and prosocial behavior change in the context of school culture: A two-year longitudinal study. *Adolescence, 44*, 751-772.
- Birkett, M., Espelage, D. L., & Koenig, B. (2009). LGB and questioning students in schools: The moderating effects of homophobic bullying and school climate on negative outcomes. *Journal of Youth and Adolescence, 38*, 989-1000. doi:10.1007/s10964-008-9389-1
- Bronfenbrenner, U., & Ceci, S. J. (1994). Nature-nurture reconceptualized in developmental perspective: A bioecological model. *Psychological Review, 101*, 568-586.
- Caravita, C. S. C., Di Blasio, P., & Salmivalli, C. (2009). Unique and interactive effects of empathy and social status on involvement in bullying. *Social Development, 18*, 140-163. doi:10.1111/j.1467-9507.2008.00465.x
- Centraal Bureau voor de Statistiek [CBS]. (2011). Voortgezet onderwijs; deelname leerlingen naar onderwijssoort. Retrieved on 17 March 2012 from: <http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=80040NED&D1=0,3,6-8,14-15,19-21,55,57-59,61-64,69-70,72-74,76-79,84&D2=0&D3=0&D4=0-1,3-4,I&D5=I&D6=0&D7=5-7&HD=110616-1110&HDR=G4,G5,G1,G2,G3,G6&STB=T>
- Coleman, P. L., & Byrd, C. P. (2003). Interpersonal correlates of peer victimization among young adolescents. *Journal of Youth and Adolescence, 32*, 301-314. doi:10.1023/A:1023089028374
- Craig, W. M., & Pepler, D. J. (2000). Observations of bullying in the playground and in the classroom. *School Psychology International, 21*, 22-36. doi:10.1177/0143034300211002
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology, 10*, 85.
- Davis, M. H., & Franzoi, S. L. (1991). Stability and change in adolescent self-consciousness and empathy. *Journal of Research in Personality, 25*, 70-87. doi:10.1016/0092-6566(91)90006-C

- De Corte, K., Buysse, A., Verhofstadt, L. L., Roeyers, H., Ponnet, K., & Davis, M. H. (2007). Measuring empathic tendencies: Reliability and validity of the Dutch version of the Interpersonal Reactivity Index. *Psychologica Belgica, 47*, 235-260.
- Eisenberg, N. (2000). Emotion, regulation, and moral development. *Annual Review of Psychology, 51*, 665-697. doi:10.1146/annurev.psych.51.1.665
- Eisenberg, N., & Fabes, R. A. (1990). Empathy: Conceptualization, measurement, and relation to prosocial behavior. *Motivation and Emotion, 14*, 131-149. doi:10.1007/BF00991640
- Espelage, D. L., & Holt, M. K. (2001). Bullying and victimization during early adolescence: Peer influences and psychosocial correlates. *Journal of Emotional Abuse, 2*, 123-142.
- Fox, C. L., Elder, T., Gater, J., & Johnson, E. (2010). The association between adolescents' beliefs in a just world and their attitudes to victims of bullying. *British Journal of Educational Psychology, 80*, 183-198. doi:10.1348/000709909X479105
- Gasser, L., & Keller, M. (2009). Are the competent the morally good? Perspective taking and moral motivation of children involved in bullying. *Social Development, 18*, 798-816. doi:10.1111/j.1467-9507.2008.00516.x
- Gini, G., Albiero, P., Benelli, B., & Altoè, G. (2007). Does empathy predict adolescents bullying and defending behavior? *Aggressive Behavior, 33*, 467-476. doi:10.1002/ab.20204
- Gini, G., Albiero, P., Benelli, B., & Altoè, G. (2008). Determinants of adolescents' active defending and passive bystanding behavior in bullying. *Journal of Adolescence, 31*, 93-105. doi:10.1016/j.adolescence.2007.05.002
- Goossens, F. A., Olthof, T., & Dekker, P. H. (2006). New participant role scales: Comparison between various criteria for assigning roles and indications for their validity. *Aggressive Behavior, 32*, 343-357. doi:10.1002/ab.20133
- Hawk, S. T., Keijsers, L., Branje, S. J. T., Van der Graaff, J., De Wied, M., & Meeus, W. (in press). Examining the interpersonal reactivity index (IRI) among early- and late-adolescents and their mothers. *Journal of Personality Assessment*.
- Hoffman, M. L. (2008). Empathy and prosocial behavior. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of Emotions*, 3rd Ed. (pp. 440-455). New York: Guilford Press.
- Jolliffe, D., & Farrington, D. P. (2004). Empathy and offending: A systematic review and meta-analysis. *Aggression and Violent Behavior, 9*, 441-476. doi:10.1016/j.avb.2003.03.001
- Jolliffe, D., & Farrington, D. P. (2006). Development and validation of the basic empathy scale. *Journal of Adolescence, 29*, 589-611. doi:10.1016/j.adolescence.2005.08.010

- Juvonen, J., Graham, S., Schuster, M. A. (2003). Bullying among young adolescents: The strong, the weak and the troubled. *Annual Review of Psychology, 112*, 665–697. doi:0084–6570/00/0201–0665\$12.00665
- Kärnä, A., Voeten, M., Poskiparta, E., & Salmivalli, C. (2010). Vulnerable children in varying classroom contexts. Bystanders' behaviors moderate the effects of risk factors on victimization. *Merrill-Palmer Quarterly, 56*, 261-282.
- Kokkinos, C. M., & Kipritsi, E. (2012). The relationship between bullying, victimization, trait emotional intelligence, self-efficacy and empathy among adolescents. *Social Psychological Education, 15*, 41-58. doi:10.1007/s11218-011-9168-9
- Landsheer, H., 't Hart, H., De Goede, M., & Van Dijk, J. (2010). *Praktijkgestuurd Onderzoek: Methoden van Praktijkonderzoek*. Groningen: Noordhoff Uitgevers.
- Lodge, J., & Frydenberg, E. (2005). The role of peer bystanders in school bullying: Positive steps toward promoting peaceful schools. *Theory into Practice, 44*, 329-336. doi:10.1207/s15430421tip4404_6
- McCrae, R. R. (2002). The maturation of personality psychology: Adult personality development and psychological well-being. *Journal of Research in Personality, 36*, 307-317. doi:10.1016/S0092-6566(02)00011-9
- Nickerson, A. B., Mele, D., & Princiotta, D. (2008). Attachment and empathy as predictors of roles as defenders or outsiders in bullying interactions. *Journal of School Psychology, 46*, 687–703. doi:10.1016/j.jsp.2008.06.002
- Oh, I., & Hazler, R. J. (2009). Contributions of personal and situational factors to bystanders' reactions to school bullying. *School Psychology International, 30*, 291-310. doi:10.1177/0143034309106499
- Okun, M. A., Shepard, S. A., & Eisenberg, N. (2000). The relations of emotionality and regulation to dispositional empathy-related responding among volunteers-in-training. *Personality and Individual Differences, 28*, 367-382. doi:10.1016/S0191-8869(99)00107-5
- Pellegrini, A. D. (2002). Bullying, victimization, and sexual harassment during the transition to middle school. *Educational Psychologist, 37*, 151–163.
- Pöyhönen, V., Juvonen, J., & Salmivalli, C. (2010). What does it take to stand up for the victim of bullying? The interplay between personal and social factors. *Merrill-Palmer Quarterly, 56*, 143-163.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers, 36*, 717-731. doi:10.3758/BF03206553
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879-891. doi:10.3758/BRM.40.3.879

- Raskauskas, J. L., Gregory, J., Harvey, S. T., Rifshana, F., & Evans, I. M. (2010). Bullying among primary school children in New Zealand: Relationships with prosocial behaviour and classroom climate. *Educational Research, 52*, 1–13. doi:10.1080/00131881003588097
- Rigby, K. (2003). Consequences of bullying in schools. *Canadian Journal of Psychiatry, 48*, 583-590.
- Robson, C. (2002). *Real world research*, 2nd Ed. Oxford, UK: Blackwell Publishing.
- Salmivalli, C., Caravita, S., & Di Blasio, P. (2010). Early adolescents' participation in bullying: Is TOM involved? *Journal of Early adolescence, 30*, 138-170. doi:10.1177/0272431609342983
- Salmivalli, C., Lagerspetz, K., Bjorkqvist, K., Osterman, K., and Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior, 22*, 1-15. doi:10.1002/(SICI)1098-2337(1996)22:1<1::AID-AB1>3.0.CO;2-T
- Schäfer, M., & Korn, S. (2004). Bullying als gruppenphänomen: Eine adaptation des 'Participant Role'-Ansatzes (Bullying as a group phenomenon: An adaptation of the Participant-Role approach). *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie, 36*, 19–29. doi:10.1026/0049-8637.36.1.19
- Scholte, R. H., Engels, R., Overbeek, G., de Kemp, R., & Haselager, G. (2007). Stability in bullying and victimization and its association with social adjustment in childhood and adolescence. *Journal of Abnormal Child Psychology, 35*, 217–228. doi:10.1007/s10802-006-9074-3
- Schultz, L. H., Selman, R. L., & LaRusso, M. D. (2003). The assessment of psychosocial maturity in children and adolescents: Implications for the evaluation of school-based character education programs. *Journal of Research in Character Education, 1*, 67-87.
- Schultze-Krumbholz, A., & Scheithauer, H. (2009). Social-behavioral correlates of cyberbullying in a German student sample. *Zeitschrift für Psychologie-Journal of Psychology, 4*, 224-226. doi:10.1027/0044-3409.217.4.224
- Schwartz, D. (2000). Subtypes of victims and aggressors in children's peer groups. *Journal of Abnormal Child Psychology, 28*, 181–192. doi:0091-0627/00/0400-0181\$18.00/0
- Sekol, I., & Farrington, D. P. (2010). The overlap between bullying and victimization in adolescent residential care: Are bully/victims a special category? *Institute of Children and Youth Services Review, 32*, 1758–1769. doi:10.1016/j.childyouth.2010.07.020
- Smith P. K., Madsen, K. C., & Moody, J. C. (1999). What causes the age decline in reports of being bullied at school? Towards a developmental analysis of risks of

- being bullied. *Educational Research*, 4, 267-285. doi:10.1080/0013188990410303
- Smith, R. L., & Rose, A. J. (2011). The "cost of caring" in youths' friendships: Considering associations among social perspective taking, co-rumination, and empathic distress. *Developmental Psychology*, 47, 1792-1803.
- Soubelet, A., & Salthouse, T. A. (2011). Influence of social desirability on age differences in self-reports of mood and personality. *Journal of Personality*, 79, 741-762. doi:10.1111/j.1467-6494.2011.00700.x
- Sourander, A., Helstela, L., Helenius, H., Piha, J. (2000). Persistence of bullying from childhood to adolescence a longitudinal 8-year follow-up study. *Child Abuse and Neglect*, 24, 873-881. doi:10.1016/S0145-2134(00)00146-0
- Stavriniades, P., Georgiou, S., & Theofanous, V. (2010): Bullying and empathy: a short-term longitudinal investigation. *Educational Psychology*, 30, 793-802. doi:10.1080/01443410.2010.506004
- Thornberg, R. (2007). A classmate in distress: schoolchildren as bystanders and their reasons for how they act. *Social Psychology of Education*, 10, 5-28. doi:10.1007/s11218-006-9009-4
- Van der Wal, M. F., De Wit, C. A., Hirasing, R. A. (2003). Psychosocial health among young victims and offenders of direct and indirect bullying. *Pediatrics*, 111, 1312-1317. doi:10.1542/peds.111.6.1312
- Vreeman, R. C., & Carroll, A. E. (2007). A systematic review of school-based interventions to prevent bullying. *Archives of Pediatric and Adolescent Medicine*, 161, 78-88. doi:10.1001/archpedi.161.1.78
- Warden, D., & Mackinnon, S. (2003). Prosocial children, bullies and victims: An investigation of their sociometric status, empathy and social problem-solving strategies. *British Journal of Developmental Psychology*, 21, 367-385. doi:10.1348/026151003322277757
- Williford, A. P., Brisson, D., Bender, K. A., Jenson, J. M., & Forrest-Bank, S. (2011). Patterns of aggressive behavior and peer victimization from childhood to early adolescence: A latent class analysis. *Journal of Youth Adolescence*, 40, 644-655. doi:10.1007/s10964-010-9583-9
- Woods, S., Hall, L., Dautenhahn, H. K., & Wolke, D. (2007). Implication of gender differences for the development of animated characters for the study of bullying behavior. *Computers in Human Behavior*, 23, 770-786. doi:10.1016/j.chb.2004.11.018
- Woods, S., Wolke, D., Nowicke, S., & Hall, L. (2009). Emotion recognition abilities and empathy of victims of bullying. *Child Abuse & Neglect*, 33, 307-311. doi:10.1016/j.chiabu.2008.11.002

Footnotes

¹Additional analyses for bullying behavior. Although model 3 was not significant, there was still a significant age x EC interaction effect. This indicates that the relationship between age and bullying behavior is moderated by EC, and the relationship between EC and bullying behavior is moderated by age. For exploratory purposes, additional analyses were conducted. A linear regression was conducted that included age and gender as predictors in model 1. This model appeared significant, with gender being the only significant predictor ($R^2 = .141, p < .001$). In model 2, EC was added to see if there was a main effect of this variable. This was not the case ($\Delta R^2 = .004, p = .452$). Finally, the age x EC interaction was added in model 3, but this also did not produce a significant model ($\Delta R^2 = .009, p = .232$). It can therefore be concluded that there is no significant relationship between EC, PT, PD and bullying behavior. There was a significant effect of gender on bullying behavior, but this relationship is rather weak.

²Additional analysis for victimization. Although model 3 was not significant, there was still a significant effect of both age and EC on victimization. In order to check which variables best predict victimization, an additional linear regression was calculated in which age and gender were added in model 1 ($\Delta R^2 = .073, p = .002$), and EC was added in model 2 ($\Delta R^2 = .071, p = .424$). In this analysis, model 2 did not explain an additional significant amount of variance, and both EC and gender were no longer significant predictors of victimization in model 2. Therefore, model 1 best fits the current data.

³Additional analysis for passive bystander behavior. Although none of the models were significant, there were two outstanding results that were worth analyzing further. In model 2, the relation between PD and passive bystander behavior was notably stronger compared to the other variables ($\beta = .164, p = .090$). Furthermore, in model 4, the interaction between age x gender x PD and passive bystander behavior was notably stronger compared to the other variables ($\beta = .276, p = .059$). In order to check whether these variables could predict passive bystander behavior in the absence of the other variables, an additional linear regression was conducted in which PD was added in model 1, and age x gender x PD was added in model 2. Neither of these models explained a significant amount of variance ($\Delta R^2 = .019, p = .102$; $\Delta R^2 = .003, p = .515$), these models do not fit the current data.

⁴Additional analysis for active defender behavior. Although model 3 was not significant, there was still a significant effect of both age and PT on active defender behavior. In order to check which variables best predict active defender behavior, an additional linear regression was done in which age was added in model 1 ($\Delta R^2 = .046, p = .010$), PT was added in model 2 ($\Delta R^2 = .156, p < .001$), and EC and PD were added in model 3 ($\Delta R^2 = .086, p < .001$). Model 3 explained a medium amount of variance ($R^2 = .267, p < .001$), and thus fits the current data.

Running Head: RELATION BETWEEN EMPATHY CONSTRUCTS AND BULLYING ROLES

Table 1
Descriptive Statistics and Correlations

<i>Means and Standard Deviations</i>				<i>Pearson Correlations between All Variables</i>							
	Mean	SD	Range	1	2	3	4	5	6	7	8
1 Age	14.94	1.44	13.00 – 18.00	-							
2 EC	3.346	.560	2.00 – 4.71	.003	-						
3 PT	3.120	.595	1.43 – 4.57	.064	.467***	-					
4 PD	2.708	.696	1.14 – 4.29	-.054	.433***	.069	-				
5 Bully	1.458	.415	1.00 – 2.70	-.016	-.239**	-.157	-.134	-			
6 Victim	1.521	.675	1.00 – 3.75	-.198*	-.166*	-.088	.015	.263**	-		
7 Passive Bystander	2.716	.517	1.29 – 4.14	-.083	-.001	-.106	.138	-.181*	-.150	-	
8 Active Defender	2.576	.710	1.05 – 4.25	-.215**	.403***	.381***	.012	.097	.070	-.238**	-

Notes. EC = Empathic Concern; PT = Perspective Taking; PD = Personal Distress

* $p < .05$; ** $p \leq .01$; *** $p \leq .001$

Running Head: RELATION BETWEEN EMPATHY CONSTRUCTS AND BULLYING ROLES

Tabel 2
Linear Regression Models for Bullying Behavior

Variables	B	SE	β	Adj. R ²	ΔR^2
Model 1				.128	.141***
Age	-.013	.079	-.013		
Gender	-.748	.157	-.375***		
Model 2				.114	.005
Age	-.011	.080	-.011		
Gender	-.678	.186	-.340***		
EC	-.056	.107	-.056		
PT	-.037	.092	-.037		
PD	.008	.091	.008		
Model 3				.137	.059
Age	.022	.080	.022		
Gender	-.706	.185	-.354***		
EC	-.259	.162	-.259		
PT	.097	.128	.097		
PD	.065	.127	.065		
Age x EC	-.250	.107	-.246*		
Gender x EC	.367	.217	.262		
Age x PT	.193	.101	.181		
Gender x PT	-.270	.185	-.191		
Age x PD	.114	.096	.112		
Gender x PD	-.105	.183	-.071		
Model 4				.123	.005
Age	.068	.095	.068		
Gender	-.730	.189	-.366***		
EC	-.244	.165	-.244		
PT	.100	.130	.100		
PD	.074	.129	.074		
Age x EC	-.213	.152	-.210		
Gender x EC	.359	.220	.256		
Age x PT	.227	.140	.213		
Gender x PT	-.255	.193	-.180		
Age x PD	.168	.124	.164		
Gender x PD	-.106	.190	-.072		
Age x Gender x EC	-.060	.222	-.044		
Age x Gender x PT	-.049	.207	-.032		
Age x Gender x PD	-.135	.217	-.085		

Notes. EC = Empathic Concern; PT = Perspective Taking; PD = Personal Distress

* $p < .05$; ** $p \leq .01$; *** $p \leq .001$

Tabel 3
Linear Regression Models for Victimization

Variables	B	SE	β	Adj. R ²	ΔR^2
Model 1				.073	.087**
Age	-.196	.081	-.196**		
Gender	-.434	.162	-.218*		
Model 2				.071	.018
Age	-.191	.082	-.191*		
Gender	-.407	.191	-.204*		
EC	-.137	.110	-.137		
PT	.036	.094	.036		
PD	.131	.093	.131		
Model 3				.057	.027
Age	-.180	.084	-.180*		
Gender	-.379	.194	-.190		
EC	-.344	.169	-.344*		
PT	.040	.134	.040		
PD	.178	.133	.178		
Age x EC	.023	.112	.022		
Gender x EC	.377	.227	.269		
Age x PT	.045	.106	.042		
Gender x PT	-.011	.193	-.008		
Age x PD	.003	.100	.003		
Gender x PD	-.126	.191	-.085		
Model 4				.039	.004
Age	-.148	.099	-.148		
Gender	-.398	.198	-.200*		
EC	-.325	.172	-.325		
PT	.044	.136	.044		
PD	.178	.135	.178		
Age x EC	.094	.159	.092		
Gender x EC	.366	.230	.261		
Age x PT	.049	.146	.046		
Gender x PT	-.013	.202	-.009		
Age x PD	.011	.130	.011		
Gender x PD	-.119	.198	-.081		
Age x Gender x EC	-.142	.232	-.103		
Age x Gender x PT	.002	.216	.001		
Age x Gender x PD	-.009	.228	-.005		

Notes. EC = Empathic Concern; PT = Perspective Taking; PD = Personal Distress

* $p < .05$; ** $p \leq .01$; *** $p \leq .001$

Tabel 4
Linear Regression Models for Passive Bystander Behavior

Variables	B	SE	β	Adj. R ²	ΔR^2
Model 1				-.005	.010
Age	-.082	.085	-.082		
Gender	-.106	.169	-.085		
Model 2				.008	.034
Age	-.067	.084	-.067		
Gender	-.184	.197	-.092		
EC	.019	.114	.019		
PT	-.097	.097	-.097		
PD	.164	.096	.164		
Model 3				.003	.038
Age	-.084	.086	-.084		
Gender	-.208	.199	-.104		
EC	.168	.174	.168		
PT	-.121	.138	-.121		
PD	.085	.136	.085		
Age x EC	.025	.115	.024		
Gender x EC	-.278	.234	-.199		
Age x PT	-.137	.109	-.128		
Gender x PT	-.016	.198	-.012		
Age x PD	.099	.103	.097		
Gender x PD	.233	.197	.158		
Model 4				.015	.032
Age	-.104	.100	-.104		
Gender	-.202	.200	-.102		
EC	.200	.175	.200		
PT	-.117	.137	-.117		
PD	.058	.136	.058		
Age x EC	.194	.161	.190		
Gender x EC	-.300	.233	-.214		
Age x PT	-.207	.148	-.194		
Gender x PT	-.093	.204	-.066		
Age x PD	-.051	.131	-.050		
Gender x PD	.281	.201	.190		
Age x Gender x EC	-.386	.235	-.279		
Age x Gender x PT	.108	.219	.071		
Age x Gender x PD	.439	.230	.276		

Notes. EC = Empathic Concern; PT = Perspective Taking; PD = Personal Distress

* $p < .05$; ** $p \leq .01$; *** $p \leq .001$

Tabel 5
Linear Regression Models for Active Defender Behavior

Variables	B	SE	β	Adj. R ²	ΔR^2
Model 1				.096	.109***
Age	-.217	.080	-.217**		
Gender	.500	.160	-.251**		
Model 2				.267	.184***
Age	-.242	.080	-.242**		
Gender	.168	.186	.084		
EC	.338	.107	.338**		
PT	.228	.092	.228**		
PD	-.191	.091	-.191*		
Model 3				.267	.031
Age	-.212	.074	-.212**		
Gender	.166	.171	.083		
EC	.169	.149	.169		
PT	.257	.118	.257*		
PD	-.108	.117	-.108		
Age x EC	-.172	.099	-.169		
Gender x EC	.289	.200	.206		
Age x PT	.112	.093	.105		
Gender x PT	-.033	.170	-.024		
Age x PD	.004	.088	.003		
Gender x PD	-.178	.169	-.120		
Model 4				.256	.006
Age	-.166	.087	-.166		
Gender	.144	.174	.072		
EC	.187	.152	.187		
PT	.261	.119	.261*		
PD	-.101	.118	-.101		
Age x EC	-.144	.140	-.144		
Gender x EC	.278	.202	.198		
Age x PT	.170	.128	.160		
Gender x PT	-.029	.177	-.020		
Age x PD	.057	.114	.056		
Gender x PD	-.168	.175	-.113		
Age x Gender x EC	-.045	.204	-.033		
Age x Gender x PT	-.106	.190	-.070		
Age x Gender x PD	-.122	.200	-.077		

Notes. EC = Empathic Concern; PT = Perspective Taking; PD = Personal Distress

* $p < .05$; ** $p \leq .01$; *** $p \leq .001$