“That Really Hurt, Charlie!” Investigating the Role of Sympathy and Moral Respect in Children’s Aggressive Behaviour

by

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Abstract

This study examined the independent and combined roles of sympathy and moral respect in children’s overt aggression, and the subtypes of proactive and reactive aggression, in a sample of 5-, 7-, and 10-year-olds (N = 110). Aggressive behaviour was measured through teacher reports and peer nominations. Sympathy was measured through teacher reports. Moral respect was measured using an interview procedure where children reported their feelings of respect towards a moral and amoral character. Results revealed that sympathy and moral respect were negatively related to overt aggression and specifically to the proactive aggression subtype, and unrelated to the reactive aggression subtype. In addition, an interaction between children’s sympathy and respect for amoral others was found. In children with low sympathy, children’s respect for amoral others further increased their overt aggression. We discuss the implications of our findings in relation to developmental research on children’s aggressive behaviour, sympathy, and moral respect.

Keywords: aggression, proactive aggression, reactive aggression, sympathy, moral respect
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"That Really Hurt, Charlie!" Investigating the Role of Sympathy and Moral Respect in Children’s Aggressive Behaviour

Aggressive behaviour has been defined as the intentional harming of another, physically or psychologically (Krahé, 2013), and comprises of many different behaviours such as hitting, teasing, and bullying. It is associated with a variety of social, cognitive, and health problems in children, such as peer rejection, low academic achievement, and more frequent injuries (e.g., Chen, McComas, Hartman, & Symons, 2011; Temcheff et al., 2011; Wassom, 2013). If not prevented or decreased, these problems are likely to lead to maladaptive health outcomes in adolescence and adulthood that negatively impact the individual, their family, and society alike (White & Kistner, 2011). In an attempt to better understand the developmental antecedents of aggressive behaviour in children, researchers have investigated emotions in everyday experiences of moral and social conflicts, such as sympathy for needy others or respect for others’ moral qualities. This has been done because researchers have argued that other-oriented and self-evaluative emotions in the moral domain are integral in the development of children’s morally relevant behaviour, such as aggression and bullying (Eisenberg, 2000; Hoffman, 2000; Malti, 2015; Malti & Krettenauer, 2013; Malti & Latzko, 2012). Aggression is, by definition, related to moral development as both concern the same domain, i.e., ethical principles of physical and psychological integrity (Arsenio, 2014; Arsenio & Lemerise, 2004). As such, there is a conceptual overlap between aggression and morality (Eisner & Malti, 2015; Tangney, Stuewig, & Mashek, 2007). Despite recognition that aggression and affective-moral development are conceptually linked, most of the existing research has been limited to examining relations between overt aggression and sympathy/empathy. In contrast, few studies have considered the role of moral respect in aggression, and even fewer have looked at the compensatory role of
moral respect in the relation between sympathy and aggression. The present study therefore examined both the independent and joint relations between sympathy and moral respect, and overt aggression.

We also investigated if sympathy and moral respect are differentially linked to the subtypes of overt aggression: Proactive and reactive aggression (i.e., goal-directed aggression and impulsive aggression, respectively). This was done based on previous research suggesting that the affective-moral correlates of aggression might depend on the function of aggression, and thus might be more pronounced in proactive compared to reactive aggression (Arsenio, Adams, & Gold, 2009). This may be because of the premeditated nature of proactive aggression, as opposed to the impetuous, defensive nature of reactive aggression (Polman, de Castro, Thomaes, & van Aken, 2009). Furthermore, since proactive aggression is typically instrumental and often carried out for extrinsic rewards (Marsee & Frick, 2007), children who engage in proactive aggression might be more likely to understand but disregard the feelings of others in their goal-oriented pursuit.

We investigated these links in a sample of 5-, 7-, and 10-year-olds using a multi-method, multi-informant design. The age groups were selected based on previous research showing increases in children’s sympathy (measured through observations, self reports, teacher and parent reports) from early to middle childhood (Kienbaum, 2014), as well as changes in children’s conceptualizations of respect throughout childhood until adolescence (Malti & Peplak, 2015; Piaget, 1932; Shwalb & Shwalb, 2006). Furthermore, various shifts in aggression throughout development have been identified such as decreases in overt and reactive aggression beyond early childhood (e.g., Eisner & Malti, 2015; Kochanska, Murray, & Harlan, 2000).
Relations between Sympathy, Moral Respect, and Overt Aggression

The first goal of this study was to examine the independent and combined roles of sympathy and moral respect in the development of children’s overt aggressive behaviour. Sympathy, an other-oriented emotion, has been defined as the feeling of concern for another; however, unlike empathy, it does not involve feeling the same or similar emotions as the other (Eisenberg, Spinrad, & Morris, 2014). Although sympathy and empathy are viewed as distinct constructs, they conceptually overlap (Zhou, Valiente, & Eisenberg, 2003) and have both been found to negatively relate to aggressive behaviour (e.g., Dinolfo & Malti, 2013; Schultz, Izard, & Bear, 2004; Strayer & Roberts, 2004). In fact, some researchers have argued that lack of concern for others and empathic dysfunction are trademark symptoms associated with aggression (Blair, 2008). Yet, as seen in meta-analyses, the strength of the relations between sympathy/empathy and overt aggression has been low to moderate at best (e.g., van Noorden, Haselager, Cillessen, & Bukowski, 2014), suggesting that there may be other affective variables that contribute to aggressive behaviour in addition to sympathy/empathy. Despite the cogent links between sympathy/empathy and aggression, researchers have largely failed to differentiate the two constructs. It is important to distinguish the two emotions because of their prominent affective differences (i.e., sympathy relating more to feelings of concern for the other compared to empathy, which is a type of affective synchrony between the target and respondent). It is likely that this conceptual difference matters for their respective contribution to aggression because only sympathy involves concern for unfortunate others, which are often victims/targets of acts of interpersonal victimization and aggression. Furthermore, empathy has been related to emotional over-arousal or distress (Fultz, Schaller, & Cialdini, 1988), which may inhibit prosocial tendencies and promote egoistic motivation (Oceja, López-Pérez, Ambrona, & Fernández, 2009).
In this study, we aim to examine the unique relationship between the development of overt aggression and sympathy.

Respect is defined as the recognition of the good qualities of another (Li & Fischer, 2007), and like sympathy, has long been recognized as a fundamental other-oriented emotion (Turiel, 2010; see Malti & Latzko, 2012). Other-oriented moral emotions focus and target the other (e.g., feeling sorry for a less fortunate other), compared to self-conscious moral emotions, which focus on the self and evoke self-reflection (e.g., feeling guilty for stealing; Malti & Latzko, 2012; Tangney et al., 2007). Previous studies have identified respect as an integral emotion in children’s prosocial tendencies. For instance, in classroom settings, respect has been linked to kindness and positive peer relationships (Mayseless & Scharf, 2011). These findings suggest that respect may play a motivating role in other-oriented behaviours: If children feel respect for others, they may be less likely to engage in aggressive behaviour. Specifically, their dispositional appreciation and positive regard for a moral other may discourage their aggression by attenuating negative emotions (i.e., anger) that may be promoting their aggressive behaviour.

In the present study, we focused on respect in the moral domain in particular, i.e., the appreciation and admiration of the (a)moral qualities of another, such as behaving fairly (i.e., morally) or behaving aggressively (i.e., amorally).

Although few studies have examined the relation between (moral) respect and aggression, there is some evidence that respect and aggression may indeed be negatively linked. For example, Leary, Brennan, and Briggs (2005) explored 14- to 18-year-old African American youth’s respect in relation to their aggressive behaviour. Respect was measured using items composed of concepts involving trusting others, appreciating guidance and advice, and being valued/valuing others. Results revealed that feeling respect towards society, peers, and family
members was negatively associated with aggression. This could be because respect may motivate individuals to emulate others’ morally respected traits (i.e., moral characteristics they admire or value), which are typically positive and rewarding in nature, and innately contrary to aggressive motivations and behaviours. Additionally, regarding respect towards amoral others, Flores-Gonzalez (2005) found that respect for antisocial behaviour led to more aggression and violent behaviours among Latino youth. Thus, it is reasonable to assume that moral respect, similar to sympathy, may be associated with the inhibition of aggressive tendencies, and on the other end of the spectrum, low levels of moral respect (or amoral respect) to be associated with increased aggressive tendencies.

We also examined if respect in the moral domain plays a compensatory role for children with different levels of sympathy in the inhibition (or promotion) of aggressive acts. Although moderate levels of sympathy and respect for moral others may be enough to inhibit or decrease children’s aggressive behaviour, the behavioural outcomes of children who display low levels of sympathy may be quite different. Previous research suggests that low levels of sympathy/empathy relate to high levels of aggression (Hastings, Zahn-Waxler, Robinson, Usher, & Bridges, 2000). Yet, it is possible that feeling low levels of sympathy may lead to less aggressive behaviour if high levels of respect for moral others are felt. Alternately, children’s aggression may be further promoted when they have low levels of sympathy and high levels of respect for aggressive others. This interaction was explored because of the other-orientation of both types of emotions and because of previous research suggesting compensatory effects of moral emotions during morally relevant behaviours (e.g. Colasante, Zuffiano, & Malti, in press; Ongley & Malti, 2014). It is likely that since both emotions are other-oriented in nature, if one other-oriented emotion is lacking (i.e., sympathy), the other other-oriented emotion (i.e., moral
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respect) may help to counteract the negative effects emotions such as anger may have on children’s behaviour. The two other-oriented emotions, however, must concern the same principles/domain (i.e., positive moral domain) in order for them to have a compensatory effect on decreasing aggression. Specifically, it is speculated that respect for amoral others may further promote aggression.

We also examined developmental differences in the relations between sympathy and moral respect with aggression. Although the strength of the relation between sympathy and aggression ranges from low to moderate depending on age (van Noorden et al., 2014), it is likely that the relation becomes stronger with age since research has revealed positive age-related increases in sympathy (e.g., Kienbaum, 2014), suggesting increases in children’s other-oriented concern. Furthermore, increases in children’s theory of mind are found from early to middle childhood (Perner & Lang, 1999), suggesting children’s increased ability to understand the desires, beliefs, and feelings of others. Thus, developmental increases in theory of mind and other-oriented concern may motivate children to refrain from aggressing against others since they are more likely to recognize and understand the negative consequences their behaviours have on others.

Regarding moral respect, research suggests that it strongly develops from early to late childhood, as a function of increasing peer interaction and cognitive development (e.g., Piaget, 1932). Conceptually, it can be posited that due to children’s advances in social-cognitive development and theory of mind, respect may become more prominent in peer relationships. This may be because, with age, children are better able to attend to others’ feelings and concerns, as well as to the admirable moral qualities they may possess.
Relations Between Sympathy and Moral Respect with Proactive and Reactive Aggression

The second main goal of our study was to explore the roles of sympathy and moral respect in two subtypes of aggression: Proactive and reactive aggression. Both subtypes involve intentionally harming another; however, they differ in terms of their goal orientation and emotional antecedents. Proactive aggression is described as “cold-blooded” and stimulus seeking, and involves goal-oriented behaviours (Arsenio et al., 2009). Reactive aggression, on the other hand, is typically characterised as the defensive harming of others in response to provocation (Dodge, Coie, & Lynam, 2006), and may be thought of as “hot-headed”, impulsive behaviour. While both types of aggression result in harming another, there is growing evidence that these two subtypes differ in terms of their social-emotional correlates (Arsenio et al., 2009), as well as their adjustment outcomes (Connor, Steingard, Anderson, & Melloni, 2003).

Research has found that children who display proactive aggression differ from typically developing children in their anticipated moral emotions. For example, Arsenio and colleagues (2009) examined how adolescents’ moral emotion attributions relate to proactive and reactive aggression. Results revealed that proactively aggressive adolescents were more likely to anticipate feeling happy following acts of provoked and unprovoked aggression. In contrast, adolescents’ reactive aggression was related to greater ease in enacting aggression when provoked but not to the absence of moral emotion attributions. These findings suggest that proactively aggressive adolescents may display lower levels of moral emotions than children who are reactively aggressive. Conceptually, it is likely that low levels of sympathy and moral respect are linked to high levels of proactive aggression because children displaying proactive aggressive behaviour are more likely to have deficits in affective concern for others based on their instrumental goal-orientation and blunted affect (Eisner & Malti, 2015), and as such, may
be less likely to also respect others’ moral qualities (i.e., qualities they may be more likely to lack). This may be because their preoccupation with achieving a goal (e.g., coercion, robbery, etc.) overrides their sympathetic or respectful orientations, and the rewarding results of aggression may be more valuable than the negative consequences of harming others (Boldizar, Perry, & Perry, 1989). It is likely that this association is less prominent, or absent, in children who display reactive aggression since research supports that their aggression is predominantly attributable to emotion regulation (Hubbard, McAuliffe, Morrow, & Romano, 2010) and social information deficits rather than deficits in affective-moral development (Arsenio et al., 2009). It is possible, however, that since reactively aggressive children have difficulties in displaying morally relevant behaviour due to their under-regulated negative emotions, their other-oriented emotions may not be strong enough to overpower their anger and frustration. Therefore, reactive aggression may also be negatively linked to sympathy and moral respect; however, to a much lesser degree than proactive aggression. Furthermore, compensatory effects between sympathy and moral respect in predicting aggression were expected in proactive aggression but not reactive aggression, due to the expected affective-moral difficulties in proactively aggressive children. Proactively aggressive children are expected to primarily have difficulties in other-oriented concern; thus, if they are able to appreciate the moral qualities of others, it may inhibit their aggressive tendencies. Alternately, if they feel higher levels of respect for aggressive others, it may further promote their aggressive tendencies.

Regarding developmental differences, research indicates that with age, reactive aggression tends to decrease due to older children’s increasing ability to regulate their emotions (Cole, 2014). Moreover, children not only learn to control their emotionality with age, but also to control their aggression for instrumental purposes (Barker, Tremblay, Nagin, Vitaro, & Lacourse
2006), suggesting possible increases in proactive aggression (Arsenio & Lemerise, 2004). Extant research, however, focuses on examining reactive and proactive aggression in children from 9 years of age and above (Polman, de Castro, Koops, van Boxtel, & Merk, 2007); therefore, the developmental trends in these aggression subtypes are unclear. Regarding developmental differences in the relations between sympathy and moral respect with proactive and reactive aggression, it is likely that both emotions may be more strongly negatively related to proactive aggression at later ages (i.e., 7- and 10-year-olds) since both sympathy and respect among peers increase from early to late childhood (Kienbaum, 2014; Piaget, 1932). Thus, deficits in sympathy and moral respect may more strongly inhibit proactive aggression during late and mid-childhood compared to early childhood.

**The Present Study**

In summary, the aims of the present study were threefold. First, we investigated the independent and combined roles of sympathy and moral respect with overt aggression. Based on previous findings on the relation between sympathy, respect, and moral behaviour, we hypothesized that children who are overtly aggressive would feel less sympathy and feel less respect towards moral characters compared to their non-aggressive counterparts (e.g., Dinolfo & Malti, 2013; Leary et al., 2005; Schultz et al., 2004). In addition, we expected moral respect to play a compensatory role in inhibiting children’s overt aggression for those with low sympathy. This was based on the assumption that respect may encourage children who lack dispositional sympathy to avert their attention to, and emulate, the moral characteristics of others; thus, discouraging engagement in harmful behaviour. This relation was expected to be reversed for respect in amoral contexts (i.e., children’s respect towards aggressive characters may further promote their aggression).
Secondly, we investigated the independent and combined roles of sympathy and moral respect specifically in children’s proactive and reactive aggression. Based on previous research suggesting more profound affective-moral deficits in children who display proactive compared to reactive aggression (e.g., Arsenio et al., 2009), we predicted stronger negative links between sympathy and moral respect in proactive aggression compared to reactive aggression. Similar to overt aggression, we expected potential compensatory effects between children’s sympathy and moral respect in children who are proactively aggressive.

Thirdly, we examined developmental differences in sympathy and moral respect with overt aggression, as well as the subcategories of overt aggression (i.e., proactive, and reactive aggression). We focused on a sample of 5, 7-, and 10-year-olds and expected that, provided increases in other-oriented concern and speculated increases in children’s recognition of others’ moral qualities from early to late childhood, sympathy and moral respect would more strongly inhibit 7- and 11-year-olds’ overt and proactive aggression compared to 5-year-olds. Since we did not expect strong relations between children’s reactive aggression, sympathy and moral respect, no developmental differences were anticipated.

We controlled for child gender and intelligence in all analyses because previous research indicates gender and intelligence differences in our study variables (Arsenio et al., 2009).

**Method**

**Participants**

A sample of 110 children ages 5 (n = 20; \( M_{age} = 5.47 \) years; \( SD = 0.31 \), 60% girls), 7 (n = 35; \( M_{age} = 7.58 \) years; \( SD = 0.30 \), 46% girls), and 10 (n = 55; \( M_{age} = 10.57 \) years; \( SD = 0.35 \), 42% girls), and their teachers from a local school in a major Canadian city participated in the current study. Participating students and their teachers were fluent in both spoken and written English
and were therefore capable of completing all assessments. According to the socioeconomic status of the area in which the study took place, participants were primarily from middle to high socioeconomic backgrounds.

**Procedure**

Data were collected in the fall semester, two months after the commencement of the school year in order to ensure familiarity among children, and among teachers and children. This study was an extension of a larger study examining children’s social-emotional development and mental health; thus, all assessments were previously tested and validated (Malti & Peplak, 2015). Written informed consent from children’s primary caregivers, as well as teachers, was obtained prior to study commencement. Participating children were informed that participation was voluntary, that they could discontinue at any time, and were asked for oral assent prior to study commencement. Testers were graduate students who received extensive training in interview techniques and procedures.

Children were tested individually in separate rooms to ensure confidentiality. All interviews were audio-recorded for data transcription purposes. Since students were unable to miss class in order to participate in the study, they were tested on two separate occasions: Each interview lasted approximately 15 to 20 minutes. In the first session, children completed assessments of respect and the self-reported sympathy scale, followed by peer-nominations (aggression) and the verbal intelligence test (the Peabody Picture Vocabulary Test) in the second session. Upon completion of their final session, children were debriefed and awarded an age-appropriate book for their participation. Teachers were asked to fill out a questionnaire on the social-emotional development and social behaviour of the participating students in their class and peer nominations were obtained verbally in an independent interview session.
The study was approved by the Research Ethics Board (REB).

**Measures**

**Overt Aggressive Behaviour.** Children’s overt aggression was measured using a latent factor created from the correlation between children’s proactive and reactive aggression (teacher reports and peer nominations). The wording of some items was altered for the 5-year-olds in order to maintain age appropriateness.

**Proactive and Reactive Aggressive Behaviour.** Children’s proactive and reactive aggressive behaviour was assessed via teacher reports and peer nominations. Children were able to nominate up to three children from their classroom who best fit each description. In line with previous research suggesting reliability issues when using peer nominations with children in early childhood (Monks & Smith, 2010), only 7- and 10-year-olds completed peer nominations. The wording of some items was altered for the 5-year-olds in order to maintain age appropriateness.

**Proactive aggressive behaviour.** Proactive aggression was examined using three well-validated items from Little, Jones, Henrich, and Hawley (2003). An example item is “Who in your class often starts fights to get what they want”. Minor changes in wording of items were made for the teacher reports. Cronbach’s alpha was .90 for peer nominations, and .89 for teacher reports.

**Reactive aggressive behaviour.** Reactive aggression was examined using three items from Little and colleagues (2003). An example item is: “Who in your class often fights back when they are hurt by someone”. Minor changes in wording to the items were made for the teacher reports. Cronbach’s alpha was .94 for peer nominations, and .93 for teacher reports.
**Sympathy.** Teachers rated their students on 5 sympathy items from the Teachers’ Reports of Children’s Sympathy scale from Zhou and colleagues (2003). One sample item is: “This student often feels sorry for others who are less fortunate”. Teachers rated how true each item was for each student (1 = never true to 6 = always true). Cronbach’s $\alpha$ for children’s teacher-reported sympathy was .93.

**Moral respect.** A semi-structured interview procedure was developed based on previous related literature on the development of moral emotions and moral reasoning (e.g., Malti Gummerum, Keller, & Buchmann, 2009; Malti & Ongley, 2014). The interview contained affect evaluations of moral respect in contexts of social interactions between peers.

**Affect evaluations.** To examine children’s respect in varying contexts of morality (e.g., fairness and aggression) children were read hypothetical stories of gender- and age-matched peers. One story depicting a moral other (i.e., fairness), as well as one story depicting an amoral other was examined (i.e., physical aggression). Because we conceptualized morality and aggression as conceptually related dimensions, we considered the story depicting an “amoral” other as part of the “moral respect” dimension (i.e., the spectrum ranging from low morality [aggressive behaviour], to high morality [fair and other-oriented behaviour]). The story reflecting a fair peer read: “When (protagonist) brought lollipops to school, he/she gave everyone an equal amount.” The physical aggression story read: “(Protagonist) pushed one of his/her classmates on the school yard.” After being read each story, children were asked “How much respect do you feel towards [protagonist]” and used a 4-point Likert scale (from 1 = do not respect to 4 = respect) to report their feelings of moral respect.

According to previous work examining the development of children’s conceptualizations of respect (Malti & Peplak, 2015), children as young as 4 years of age reported that they
understood respect and provided a definition for the term. In the current study, if children stated that they did not know what respect means, a series of prompting stories were created to aid young children in communicating and conceptualizing respect; however, these prompts were infrequently issued (i.e., in less than 5% of all cases) since children rarely reported that they did not understand respect.

**Control variables.**

*Peabody Picture Vocabulary Test – Fourth Edition (PPVT-IV).* Children’s verbal intelligence was tested using the PPVT-IV (Dunn & Dunn, 2007). It is suitable for a broad age range, from preschoolers to adults. PPVT-IV scores are related to children’s Wechsler Intelligence Scale for Children-Revised scores.

**Results**

**Descriptive Statistics**

To examine how many children fell into each subtype of aggression (i.e., predominantly proactive subtype, predominantly reactive subtype, proactive-reactive subtype), frequencies were calculated. As expected, 80% of children were low in both subtypes of aggression. Regarding each aggression subtype, 12% of children were both high in proactive and reactive aggression (i.e., 1 SD above the mean for both aggression types), 5% were high in reactive aggression and low in proactive aggression (i.e., 1 SD above the mean for reactive aggression), and 3% were high in proactive aggression and low in reactive aggression (i.e., 1 SD above the mean for proactive aggression).

Table 1 displays the means and standard deviations of all study and control variables by age group (i.e., 5-, 7-, and 10-year-olds). Developmental differences in the main study variables were examined by a series of one-way ANOVA’s followed by LSD post-hoc tests. To examine
mean-level differences in proactive and reactive aggression, teacher and peer (unstandardized) values were examined separately. For all further analyses, peer-nominated aggression and teacher-reported aggression scores were standardized and combined (see Gasser & Keller, 2008). This was justified since both teacher and peer variables were highly correlated for both proactive \((r = .42, p < .01)\) and reactive aggression \((r = .53, p < .01)\). The findings revealed developmental differences in teacher-reported sympathy, \(F(2, 96) = 4.73, p < .05\). Specifically, teachers reported higher levels of sympathy in 7- and 10-year-olds compared to 5-year-olds, \(ps < .01\).

Table 2 displays correlations among our study and control variables. As expected, both proactive and reactive aggression were strongly and positively correlated. Both proactive and reactive aggression were positively related to gender, indicating that males scored higher in aggressive behaviour than females. In line with our hypotheses, respect for fair others was negatively related to proactive and reactive aggression. Teacher-reported sympathy was negatively related to both proactive and reactive aggression, and positively correlated with age.

**Relations of Sympathy and Moral Respect with Overt Aggression**

To examine our hypotheses concerning the independent and combined roles of children’s sympathy and moral respect on overt aggression, a regression analysis predicting a latent overt aggression variable was conducted using *Mplus* 7.11 (Muthén & Muthén, 2012; see Table 3). In order to capture the correlation between the two subtypes of aggression, we estimated a latent factor (i.e., overt aggression; Card & Little, 2007) measured by children’s proactive and reactive aggression (combined teacher reports and peer nominations). Maximum likelihood with standard errors robust to non-normality was used to estimate parameters since both respect variables deviated from the normal distribution. In the first step, we included the control variables, i.e., (1) gender, (2) age, and (3) verbal IQ. At step 2, we entered the main independent variables (5)
sympathy, (6) respect for fair peer, and (7) respect for aggressive peer. At step 3, we entered the interaction terms (8) sympathy x respect for fair peer, (9) sympathy x respect for aggressive peer, as well as age interactions with sympathy and moral respect. Non-significant interaction terms were then removed from the final model to create a more parsimonious model and to ease the interpretability of the results (Cohen, Cohen, West, & Aiken 2003; Kline, 2010). In line with Cohen and colleagues (2003), all continuous study variables were mean centered.

At step 1, results revealed a positive effect of gender on aggression, suggesting that males display higher levels of aggression than females. This step explained a large amount of variance, $R^2 = .16$, $p < .01$. At step 2, we found a negative relation between children’s sympathy and aggression. A similar effect was found with children’s respect for fair others. This step predicted a large amount of variance, $\Delta R^2 = .32$. Finally, at step 3, we found a marginally significant interaction between children’s sympathy and respect for aggressive others. Specifically, at low levels of sympathy (i.e., 1 SD below the mean), children who feel high levels of respect for aggressive others displayed higher levels of aggression ($b = 0.19$, $p = .21$). This effect, however, approached marginal significance only when probed at 1.5 SD below the mean ($b = 0.35$, $p = .13$) suggesting that overt aggression increased only for children with very low sympathy who felt high levels of respect for aggressive others. Children’s respect for aggressive others did not affect their overt aggressive behaviour if they displayed high levels of sympathy neither at 1 SD ($b = -.14$, $p = .33$) nor at 1.5 SD above the mean ($b = -.23$, $p = .23$). This interaction explained a small amount of variance ($\Delta R^2 = .01$; see Figure 1).

**Relations of Sympathy and Moral Respect with Proactive and Reactive Aggression**

Next, to examine our hypotheses concerning the relation between sympathy and moral respect on the unique portion of both proactive and reactive aggression, two hierarchical
regression analyses were conducted. The first model predicted proactive aggression while controlling for reactive aggression, and the second model predicted reactive aggression while controlling for proactive aggression. In the first step of each model, we included the control variables, i.e., (1) gender, (2) age, (3) verbal IQ, and (4) proactive/reactive aggressive behaviour. As in the previous model, we then entered the main independent variables, (5) sympathy, (6) respect for fair others, and (7) respect for aggressive others, at step 2. At step 3, we entered the interaction terms (8) sympathy x respect for fair peer, (9) sympathy x respect for aggressive peer, as well as age interactions with sympathy and moral respect.

As expected, in the first model predicting proactive aggression, we found a strong positive effect of reactive aggression at step 1 (see Table 4). No effects of gender, age, or IQ were found. A large amount of variance was explained at this step ($R^2 = .76$). At step 2, both sympathy and respect for fair others was negatively related to children’s proactive aggression ($\Delta R^2 = .02$). No interactions were found at step 3.

The findings for reactive aggression are displayed in Table 5. The same control variables and step procedures were used as in the model with proactive aggression as the dependent variable. As can be seen, proactive aggression was strongly and positively related to reactive aggression. In addition, we found a gender effect, indicating that boys were more reactively aggressive than girls. Results at step 2 showed that neither sympathy nor respect was related to children’s reactive aggression. Finally, no interactions were found at step 3.

**Discussion**

This study investigated the role of sympathy and moral respect in children’s aggression in a sample of 5-, 7-, and 10-year-olds. Extending previous work (e.g., Little et al., 2003; Smithmyer, Hubbard, & Simons, 2000), we investigated overt aggression and its subtypes
independently, which helped us gain a better understanding of the ways in which sympathy and moral respect differentially contribute to overt aggression in general, and specifically to proactive and reactive aggression subtypes.

Our main objective of the study was to test the direct and indirect links between children’s sympathy and moral respect with overt aggression (i.e., latent variables of proactive and reactive aggression), and how these links differ among the subtypes of overt aggression (i.e., proactive and reactive aggression). The subtypes of overt aggression were examined because of previous research suggesting moderate to high correlations between proactive and reactive aggression, which may indicate common as well as unique origins and causations of both subtypes (Little et al., 2003; Marcus & Kramer, 2001). Furthermore, analyses examining the distribution of proactive and reactive aggression in our sample suggest that, among the aggressive children, there are children who display primarily proactive aggression, primarily reactive aggression, and those who display both proactive and reactive aggression. These findings suggest that it is indeed beneficial to examine aggression as an overt construct, and to differentiate its contributing components (i.e., proactive and reactive motivations).

Results regarding the relation between overt aggression and moral emotions revealed a strong negative effect of sympathy on overt aggression. This finding corroborates previous research suggesting a negative relation between children’s aggression and other-oriented concern (e.g., Hastings et al., 2000; van Noorden et al., 2014). Sympathy may help children recognize the negative impact of aggressive behaviour on others and help them refrain from harming them (Arsenio, 2014; Malti & Ongley, 2014). As expected, we also found a negative relation between respect for fair others and overt aggression. This finding suggests that those children who display overt aggression may have difficulties appreciating others who engage in fairness behaviours,
possibly because they themselves engage in such behaviours less than their non-aggressive counterparts. In fact, previous research suggests that children like and appreciate those who are most similar to them (Nangle, Erdley, Zeff, Stanchfield, & Gold, 2004); therefore, since aggressive children likely display lower levels of fairness and other-oriented behaviours (Obsuth, Eisner, Malti, & Ribeaud, 2015), they may be more likely to respect others who also display similar behaviours. Furthermore, since aggression involves the intentional harming of another (Eisner & Malti, 2015), low levels of respect for fairness can be expected when the well being of another is disregarded. This may be driven, in part, by aggressive individuals’ egocentric tendencies (Antonowicz & Ross, 2005). Overall, these findings suggest that children who display overt aggression may experience less other-oriented emotions, whether it is feeling concern for others’ physical or emotional states, or appreciating others’ moral qualities. These socio-emotional difficulties may exacerbate aggressive behaviours because if one does not appreciate or recognize other-oriented tendencies, they may be less likely to behave in concordance with moral norms.

We also examined the compensatory relationship between sympathy and respect on overt aggression. This was done because previous research suggests compensatory effects of moral emotions on children’s social behaviour. For instance, Colasante and colleagues (in press) found that high levels of guilt in children buffered the positive link between anger and aggression. In the present study, only when a child displayed very low levels of sympathy, their respect for aggressors further increased their overt aggression. Although this finding was only marginally significant, sympathy may be important in order to buffer the link between children’s amoral respect and overt aggression.
The second goal of this study was to examine the direct and indirect relations between children’s sympathy and moral respect with the unique portion of both proactive and reactive aggression. This was done because of previous research emphasizing the importance of distinguishing different motives of aggressive behaviour (Arsenio et al., 2009; Cima, Raine, Meesters, & Popma, 2013). In line with our expectations, we found that sympathy was negatively related to children’s proactive aggression while controlling for reactive aggression. This finding bolsters previous findings that adolescents who show high levels of proactive aggression are more likely to show low affective concern for others (Arsenio et al., 2009), and extends them to childhood samples. Furthermore, the findings revealed that children with elevated levels of proactive aggression displayed lower levels of moral respect for fair others. Interestingly, and in line with our hypotheses, these effects were unique to proactive aggression, suggesting that proactively aggressive children may have some difficulties with responding emotionally to others’ states or morally salient qualities. Deficits in the recognition and appreciation of fairness may result in a lack of motivation to emulate such behaviours, which may in turn lead these children to engage in other, likely negative, behaviours that they deem respect-worthy (e.g., dominance-related behaviours). Furthermore, children’s lack of respect for fair others may reflect their self-oriented focus. For instance, they may behave aggressively in order to attain their goal at the expense of the other (Mayberry & Espelage, 2007). It is surprising that children’s respect for others who display amoral behaviour did not relate to their proactive aggression, since previous work has found that respect for antisocial behaviour may lead to more aggression and violent behaviours (Flores-Gonzalez, 2005; Hemmings, 2003). This finding most likely reflects a methodological artifact since there was low variability in this respect variable.
Regarding children’s reactive aggression when controlling for proactive aggression, the findings did not show any association with moral respect and sympathy. These findings support previous related research that has shown that children with reactive aggression predominantly have an emotion regulation deficit (Hubbard et al., 2010), rather than affective-moral difficulties. Nevertheless, some studies have also linked children’s reactive aggression with lower levels of sympathy (e.g., Mayberry & Espelage, 2007); however, these studies did not fully disentangle proactive from reactive aggression. As such, these findings support the view that moral emotions are more important in order to prevent more strategic, pre-mediated aggression (i.e., proactive aggression).

We also explored developmental differences in children’s sympathy, moral respect, and aggressive behaviour. The findings revealed that children’s teacher-reported sympathy was higher in 7- and 10-year-olds compared to 5-year olds. This is in line with previous research suggesting increases in children’s sympathy from 5 to 8 years of age (e.g., Kienbaum, 2014).

Interestingly, we did not find any age-related differences in children’s affective-moral respect. Since our study is among the first to study affective-moral respect, we did not have any directed hypotheses regarding developmental changes. Nevertheless, Piaget (1932) suggested from early on that cognitive conceptualization of respect develop from early to late childhood. Our findings suggest that once children are able to appreciate others’ moral qualities and characteristics based on their own values, their feelings of respect towards (a)moral others may not fluctuate unless their values of those qualities and characteristics shift. Our findings also did not revealed age-related differences in aggressive behaviour despite previous research suggesting decreases in children’ reactive aggression (Cole, 2014) and potential increases in proactive aggression with age (e.g., Barker et al., 2006). Nevertheless, other research suggests that proactive and reactive
aggression peaks in late childhood and declines thereafter (Fite, Colder, Lochman, & Wells, 2008). Inconsistencies in findings may be due to informant and measurement differences. Our findings suggest that the occurrence of these subtypes of aggressive behaviour might be constant from 5 to 11 years of age, according to peer nominations and teacher reports. Further research with multiple informants and measures is warranted to study developmental differences in prevalence rates of aggression.

Surprisingly, no developmental differences in the relations between aggression, sympathy, and moral respect were found. Teacher-reported sympathy and moral respect may function similarly to combat aggression across developmental periods, which implies that the promotion of these two moral emotions at any age between early and middle childhood may have a similar effect on decreasing aggressive tendencies (particularly for overt and proactive aggression).

Although this study provided valuable insight into the links between children’s sympathy and moral respect with overt, proactive and reactive aggression, several limitations need to be noted. Firstly, this study used a cross-sectional design which did not allow testing the intra-individual development of sympathy and moral respect, and their developmental links to aggression from early to late childhood. Also, our relatively small sample size did not provide us with enough power to detect small effects. Second, children’s moral respect was only assessed through two items and it is likely that this measurement approach does not reflect the complexities involved in children’s conceptualizations of moral respect. Finally, the correlational nature of this study prevented us from making any causal claims.

Despite these limitations, the present study contributed to developmental research on social-emotional antecedents of aggression by investigating the independent and joint role of
sympathy and moral respect in overt, proactive, and reactive aggression in early to late childhood. Since aggression has been linked to negative psychosocial outcomes in children and adolescents, examining the shared and unique social-emotional antecedents of proactive and reactive aggression can not only contribute to the differentiation of conceptual models on the affective-moral antecedents of aggression, but also contribute to the refinement of intervention strategies aimed at decreasing aggression.
References


SYMPATHY, MORAL RESPECT, AND AGGRESSION

25


Marsee, M. A., & Frick, P. J. (2007). Exploring the cognitive and emotional correlates to


SYMPATHY, MORAL RESPECT, AND AGGRESSION


Table 1

*Means and Standard Deviations of Study Variables by Age Group*

<table>
<thead>
<tr>
<th>Variable</th>
<th>5-Year-Olds (n = 20)</th>
<th>7-Year-Olds (n = 35)</th>
<th>10-Year-Olds (n = 55)</th>
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<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
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<td>1.62</td>
</tr>
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</tr>
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<td>PN Proactive Aggression</td>
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<td>-</td>
<td>0.10</td>
</tr>
<tr>
<td>PN Reactive Aggression</td>
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<td>Verbal IQ</td>
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<td>10.98</td>
<td>113.80</td>
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</table>

*Note.* TR = Teacher report, PN = Peer nomination. Teacher reported scores ranged from 1 to 6. Non-standardized peer nomination scores ranged from 0 to 1. Five-year-olds did not complete peer nominations. Respect scores ranged from 1 to 4. Standard scores were computed to measure children’s verbal IQ.
Table 2

*Correlation Matrix of Study and Control Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td></td>
</tr>
<tr>
<td>2. Reactive Aggression</td>
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<td>-</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. Teacher-Reported Sympathy</td>
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<td>-.54**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Respect for Fair Peer</td>
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<td>-.25**</td>
<td>.13</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Respect for Aggressive Peer</td>
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<td>.06</td>
<td>-.16</td>
<td>-</td>
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<td></td>
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</tr>
<tr>
<td>6. Age</td>
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<td>.01</td>
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<td>.22*</td>
<td>-</td>
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<td></td>
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<td>7. Child Gender</td>
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<td>8. Verbal IQ</td>
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<td>-.08</td>
<td>.07</td>
<td>.16</td>
<td>-</td>
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*Note. Proactive and reactive aggression variables are combined teacher reported and peer-nominated variables. For gender, females were coded as 1, males were coded as 2.  
* p < .05, ** p < .01.*
Table 3
Hierarchical Regression Analyses Predicting Overt Aggression from Sympathy and Moral Respect

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>ΔR²</th>
<th>b</th>
<th>β</th>
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</thead>
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<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.16</td>
<td>- .06</td>
<td>-.16†</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
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<td>.38***</td>
</tr>
<tr>
<td>IQ</td>
<td></td>
<td>-.00</td>
<td>-.05</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.32</td>
<td>- .01</td>
<td>-.01</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>.32*</td>
<td>.22*</td>
</tr>
<tr>
<td>IQ</td>
<td></td>
<td>-.01*</td>
<td>-.15*</td>
</tr>
<tr>
<td>Sympathy</td>
<td></td>
<td>-.44***</td>
<td>-.52***</td>
</tr>
<tr>
<td>Respect for Fair Peer</td>
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<td>-.46**</td>
<td>-.24*</td>
</tr>
<tr>
<td>Respect for Aggressive Peer</td>
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<td>.13</td>
<td>.09</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
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<td>- .00</td>
<td>-.01</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
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<td>.21*</td>
</tr>
<tr>
<td>IQ</td>
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<td>-.15*</td>
</tr>
<tr>
<td>Sympathy</td>
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<td>-.45***</td>
<td>-.53***</td>
</tr>
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<td>-.47**</td>
<td>-.25**</td>
</tr>
<tr>
<td>Respect for Aggressive Peer</td>
<td></td>
<td>.03</td>
<td>.02</td>
</tr>
<tr>
<td>Respect for Aggressive Peer x</td>
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</tr>
<tr>
<td>Sympathy</td>
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<tr>
<td>Total R²</td>
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<tr>
<td>N</td>
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</tr>
</tbody>
</table>

Note. †p < .10. *p < .05. **p < .01. ***p < .001.
Table 4

*Hierarchical Regression Analyses Predicting Proactive Aggression by Sympathy and Moral Respect Controlling for Reactive Aggression*

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>$\Delta R^2$</th>
<th>$b$</th>
<th>$\beta$</th>
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<td><strong>Step 1</strong></td>
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<tr>
<td>Age</td>
<td>-.04</td>
<td>-.09*</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.02</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>IQ</td>
<td>-.00</td>
<td>.05†</td>
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<tr>
<td>Reactive Aggression</td>
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<td>.86***</td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.03</td>
<td>-.06</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.02</td>
<td>-.01</td>
<td></td>
</tr>
<tr>
<td>IQ</td>
<td>-.01</td>
<td>-.09</td>
<td></td>
</tr>
<tr>
<td>Reactive Aggression</td>
<td>.76***</td>
<td>.76***</td>
<td></td>
</tr>
<tr>
<td>Sympathy</td>
<td>-.13***</td>
<td>-.15**</td>
<td></td>
</tr>
<tr>
<td>Respect for Fair Peer</td>
<td>-.22*</td>
<td>-.10†</td>
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</tr>
<tr>
<td>Respect for Aggressive Peer</td>
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<td>Total $R^2$</td>
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<tr>
<td>$N$</td>
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</tbody>
</table>

*Note.* †$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$. 
Table 5

_Hierarchical Regression Analyses Predicting Reactive Aggression by Sympathy and Moral Respect Controlling for Proactive Aggression_

<table>
<thead>
<tr>
<th>Independent Variables</th>
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<th>β</th>
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</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
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<td></td>
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<tr>
<td>Age</td>
<td>.02</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.14*</td>
<td>.09*</td>
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</tr>
<tr>
<td>IQ</td>
<td>.00</td>
<td>.05</td>
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<tr>
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<td>.85***</td>
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</tr>
<tr>
<td><strong>Step 2</strong></td>
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<td></td>
</tr>
<tr>
<td>Age</td>
<td>.02</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.17*</td>
<td>.10</td>
<td></td>
</tr>
<tr>
<td>IQ</td>
<td>.00</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Proactive Aggression</td>
<td>.79***</td>
<td>.80***</td>
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</tr>
<tr>
<td>Sympathy</td>
<td>-.06</td>
<td>-.07</td>
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</tr>
<tr>
<td>Respect for Fair Peer</td>
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<td>-.01</td>
<td></td>
</tr>
<tr>
<td>Respect for Aggressive Peer</td>
<td>.04</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td><strong>Total R²</strong></td>
<td>.76***</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>110</td>
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<td></td>
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</tbody>
</table>

*Note. *p < .05. ***p < .001.*
Figure 1. Interaction Between Children’s Sympathy and Respect for Aggressive Peers in Predicting Overt Aggression. Low Sympathy = -1 SD, High Sympathy = +1 SD.