AGGRESSIVE BEHAVIOR
Volume 32, pages 540–550 (2006)

Examining the Relationship Between Low Empathy and Bullying

Darrick Jolliffe* and David P. Farrington

Institute of Criminology, University of Cambridge, England, London

This paper investigates the relationship between cognitive and affective empathy and bullying. A bullying questionnaire was completed by 376 males and 344 females aged about 15 in Hertfordshire. Low affective empathy was significantly related to bullying for females, but not for males. However, for both males and females low affective empathy was related to frequent vs. occasional bullying. Low total empathy was related to violent bullying by males and to indirect bullying by females. Cognitive empathy was not significantly related to any type of bullying by males or females. Aggr. Behav. 32:540–550. 2006.

Keywords: empathy; bullying; gender differences

INTRODUCTION

Empathy has been defined as an affective trait which facilitates the *experience* of the emotions of another person [Mehrabian and Epstein, 1972], a cognitive ability which facilitates the *understanding* of the emotions of another person [Hogan, 1969], and both simultaneously [Cohen and Strayer, 1996; Davis, 1983]. Regardless of whether empathy is considered affective, cognitive or both affective and cognitive, the proposed relationship with behaviour is exactly the same. That is, the presence of empathy facilitates prosocial behaviour and inhibits antisocial behaviour.

The theory suggests that, for prosocial behaviour, those with high empathy (heightened ability to experience and understand another's emotions) will respond to alleviate negative emotions in others either for selfish reasons (i.e. to reduce vicarious distress) or for altruistic reasons (i.e. to reduce another's distress). Furthermore, high empathy is also proposed to facilitate actions undertaken to benefit others as the subsequent positive emotions (e.g. happiness) would also be experienced or understood [e.g. Batson et al., 1987].

Alternatively, those with low empathy will fail to respond to alleviate the distress and discomfort in others, because the actions of those with low empathy are not tempered by the vicarious experience and/or comprehension of the emotional states of others. In fact, those with low empathy may fail to connect their antisocial behaviour to the emotional reactions of others [e.g. Hare, 1999]. Not surprisingly, it has been suggested that low empathy and bullying may be causally related [e.g. Olweus, 1991; Rigby, 1996].

Research has suggested that bullying in school is remarkably common. Over half of school children have been victimized at one time or another and over half have taken part in bullying [Farrington, 1993]. Bullying is usually defined as repetitive negative actions intended to harm or cause significant distress, inflicted by a more powerful person against a less powerful one. These negative actions can take either direct (e.g. physical or verbal attacks) or indirect forms (e.g. spreading rumours or purposefully not speaking to someone). Therefore, the power imbalance in bullying may not lie exclusively in the form of physical strength, but may also reflect personality features.

About 1–7% of UK school aged children can be classified as repeatedly bullying other children

*Correspondence to: D. Jolliffe, Institute of Criminology, University of Cambridge, Sidgwick Site, Cambridge, England CB3 9DT.
E-mail: dj211@cam.ac.uk

Received 17 November 2004; Accepted 27 June 2005

Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/ab.20154.

[Tattum, 1993; p 10]. The prevalence is relatively similar when bullies are classified by self-report questionnaires [Whitney and Smith, 1993], self-report interviews [Smith, 1991], peer reports [Lagerspetz et al., 1982] or teacher reports [Olweus, 1978]. However, it has been suggested that in order to make generalizations about the extent of bullying, anonymous self-report questionnaires appear to be the most reliable and valid [Smith and Sharp, 1994; p 12].

Bullying appears to be much more prevalent in younger children than in older ones. For example, Whitney and Smith [1993] found that 4% of junior/middle school students reported bullying others "once a week or more" compared to 1% of secondary school children. Another consistent finding is that males are much more likely to be involved in bullying than females [e.g. Olweus, 1993; Whitney and Smith, 1993]. For example, when the criterion for bullying was being involved "once a week or more often", studies in Norway [Olweus, 1991], Toronto [Ziegler and Rosenstein-Manner, 1991] and Sheffield [Whitney and Smith, 1993] all found that the prevalence of bullying amongst boys was double that of girls. Likely because of the overwhelming difference in the proportions of males and females involved in bullying, little research has been directed at female perpetrators [Smith and Sharp, 1994; for an exception see Roland, 1989].

Obviously, there are many ways that bullies can harass, humiliate and torment their classmates. Past research has tended to operationalize bullying as physical [e.g. hitting or kicking; Olweus, 1978], but contemporary research usually includes this type as well as forms of verbal bullying (e.g. name calling) and indirect bullying (e.g. purposefully avoiding someone) under the heading of bullying. The relative prevalence of these behaviours has attracted comparatively little research, and it is common for researchers to combine these types of bullying together for the purposes of analysis [e.g. Unnever and Cornell, 2003]. This is unfortunate as it seems unlikely that the factors that predispose someone to bully another in a violent manner would be exactly the same as those that predispose someone to call another person names.

The small amount of research that does exist suggests that males engage in more violent bullying than females, but that this difference is substantially reduced for verbal bullying [Smith, 2004]. Furthermore, these is some suggestion that females who are aggressive make relatively more use of indirect forms of aggression such as rumour mongering and purposefully avoiding someone [e.g. Lagerspetz et al., 1988; Whitney and Smith, 1993].

Low Empathy and Bullying

The proposed relationship between low empathy and bullying is based on exactly the same theoretical framework as the relationship between low empathy and antisocial behaviour. That is, those who bully others are proposed to have less empathy than those who do not. This is because individuals who share and/or comprehend another's negative emotional reaction, which occurs as a result of their own bullying, may be inhibited and less inclined to continue with this behaviour or bully in the future [e.g. Feshbach, 1975].

This view is supported by a number of researchers. For example, Olweus [1993; p 34] states: "[Bullies] have little empathy with victims of bullying". Furthermore, Smith and Thompson [1991] suggest that "Children who bully others may be less empathic to the feelings of others, such as potential victims". Similar assertions have been made by other researchers [e.g. Bernstein and Watson, 1997; Rigby and Slee, 1999; p 332], but there is little consistent empirical support for the relationship between low empathy and bullying.

Endresen and Olweus [2002] administered the 12-item self-report Empathic Responsiveness Questionnaire (a measure of affective empathy) and the Olweus Bullying Questionnaire to 2,286 Norwegian students (1,093 girls and 1,193 boys) aged 13–16. For both boys and girls (analysed separately), a significant negative correlation of 0.15 was found between reported bullying behaviour and empathy, suggesting a link between low empathy and bullying. In another study of empathy and bullying, Warden and Mackinnon [2003] used a measure of social behaviour to identify 21 prosocial children, 23 bullies and 14 victims of bullying from a sample of 131 9–10-year-old UK school children. They found that prosocial children scored significantly higher than bullies on a measure of emotional empathy [The Index of Empathy for Children and Adolescents, Bryant, 1982]. However, subsequent analyses demonstrated that the observed difference on the measure of empathy between bullies and prosocial children mainly reflected the difference between males and females, with females bullying less and having much higher empathy.

Additional empirical support for the proposed relationship between low empathy and bullying derives from studies of the relationship between low empathy and various forms of antisocial

behaviour including criminal offending. For example, in a study of 258 US children in the first, fourth and seventh grades (approx. 5–6, 8–9 and 13–14), Bryant [1982] found that self-reported affective empathy was negatively related to teacher appraisals of aggression, but only for children in grades 1 and 4. Kaukiainen et al. [1999] studied peer ratings of aggression and empathy[1] in 526 school children (274 girls, 252 boys) aged 10, 12 and 14 in Finland. They found significant negative correlations between empathy and each of physical (−0.34), verbal (−0.38) and indirect (−0.23) aggression.

Results were similar when more extreme populations were examined. Schonert-Reichl [1993] compared 39 behaviourally disordered high-school boys with 39 non-behaviourally disordered students on a self-report measure of affective empathy. These two groups were matched on age, socio-economic status, race, school and neighbourhood. It was found that the behaviourally disordered students scored significantly lower on the affective empathy measure than those students who were not behaviourally disordered. Cohen and Strayer [1996] used two measures of self-report empathy, one affective (The Questionnaire Measure of Affective Empathy) and one both cognitive and affective (The Interpersonal Reactivity Index), as well as the assessing cognitive and affective empathy based on responses to videotaped scenarios, in assessing the empathy of 30 adolescents (14 boys, 16 girls) diagnosed with Conduct Disorder compared to 32 controls (15 boys, 17 girls). The results of this study show that conduct disordered youth scored significantly lower than non-conduct disordered youth on every measure of empathy. The same empathy measure (assessment of responses to videotaped scenarios) was used by Braaten and Rosen [2000] to demonstrate the cognitive and affective empathy deficits in a group of 24 attention deficit hyperactivity disordered boys aged 6–13 when compared to non-ADHD boys.

Miller and Eisenberg [1988] conducted a meta-analysis of 43 studies in order to investigate the relationship of empathy to antisocial behaviour. Across these studies, empathy was assessed in a number of ways including picture/story presentations, questionnaires, facial and gesture responses and behavioural responses to experimental induction. Empathy was operationalized in purely affective terms (i.e. emotional responses evoked by the affective state or situation of the other person: see their p 325). Aggressive/externalizing behaviour was also defined in different ways to include self-report measures of aggression, peer/teacher ratings of aggression and administration of "shock" to an experimental confederate. In support of the expected relationship between low empathy and antisocial behaviour, Miller and Eisenberg (1988) found a significant negative correlation ($r = -0.18$) between questionnaire measures of empathy and aggression/externalizing behaviour.

Jolliffe and Farrington [2004] also conducted a meta-analysis to examine the relationship between empathy and antisocial behaviour. In this study, antisocial behaviour was operationally defined as criminal behaviour and empathy was operationalized as responses to questionnaire measures of empathy (both affective and cognitive). The authors were able to identify 35 studies of empathy and offending on these definitions. A moderate mean effect size of −0.27 (approximately equal to an r of −0.14) was found, suggesting a negative relationship between empathy and offending. This relationship was stronger for cognitive empathy than affective empathy, and stronger for younger people compared to older people. This study was unable to identify any studies of empathy and offending which measured offending using self-reports; all studies used official records.

The most important finding of this study was that the relationship between low empathy and offending was reduced considerably after controlling for intelligence and disappeared completely after controlling for socio-economic status. It was suggested that the relationship between low empathy and offending may not be causal or direct or may be caused by variables already known to influence offending. For example, low intelligence or low socio-economic status may cause low empathy, which in turn may cause offending; or low intelligence, low empathy and offending may all be caused by a poor ability to manipulate abstract concepts [a symptom of poor executive brain functioning; e.g. Moffitt and Henry, 1989].

An alternative view of the possible relationship between empathy and bullying has been put forward by Sutton et al. [1999] in their study of social cognition and bullying. They assessed the responses of 193 school children (ages 7–10) to 11 short stories designed to test the child's understanding of another's mental states or emotions. Although the authors do not refer to this as a measure of empathy, this device is similar to measures of cognitive (but not affective) empathic responses to story/picture presentations, which have been commonly used to

[1]This measure of empathy consisted of both cognitive and affective components.

assess empathy in younger children [e.g. Feshbach and Feshbach, 1982]. Self and peer interviews were used to classify the children as bullies, assistants (to bullies), reinforcers (of bullies), defenders (of victims), outsiders and victims. Verbal ability was also assessed and controlled for in the analyses.

While a cognitive and emotion score were produced, it is the emotion score (understanding what other's feel) that is equivalent to what is commonly referred to as cognitive empathy. Sutton et al. [1999] found those classified as bullies scored significantly higher on the emotion score than a combination group of reinforcers and assistants. They also found a significant positive correlation (0.17) between the extent of different types of bullying behaviour and the emotion score. The authors suggest that the relative high cognitive empathic ability of bullies might be an advantage in effective bullying and in recruiting others to bully.

It is clear that the relationship between empathy and bullying requires further empirical investigation. However, the bullying of males and females should be examined separately, as research has suggested that the mechanisms which lead to antisocial behaviour may be different for males and females [e.g. Farrington and Painter, 2004]. Combining males and females into a single category of "bullies" might also mask the influence of empathy on bullying as research has consistently found that females have significantly greater empathy than males [Davis, 1983; Lennon and Eisenberg, 1987].

The purpose of this research is to compare the levels of cognitive and affective empathy of those who report bullying compared to those who do not. This will be undertaken separately for males and females and for the different types of bullying.

METHOD

Sampling

Information for this study was obtained from 720 adolescents (376 males, 344 females) in Year 10 (aged about 15) from three schools in Hertfordshire. This age group was specifically chosen for two reasons. First, the Jolliffe and Farrington [2004] meta-analysis demonstrated that the mean difference in empathy between those who offend and those who do not was stronger for young people compared to older ones. Second, a wealth of evidence suggests that mid-adolescence is the period of the highest prevalence and frequency of offending [e.g. Loeber et al., 2003]. Taken together, these considerations suggest that empathy deficits may play a crucial role in this time period.

Over 90% of the sample was Caucasian, with the next most prevalent racial groups being Asian (4.3%) and Black (2.6%).

Anonymous self-report questionnaires were administered in classrooms by an experienced researcher. A "passive consent" procedure was used to obtain tacit approval from the parents of those involved, whereby parents were provided with an opportunity to withhold consent for their children's participation. In addition to the passive parental consent, active informed consent was obtained from all eligible students. Respondents were informed that their participation was voluntary and that they could withdraw from the study at any time without penalty.

Because staff at each school and within each classroom dealt differently with those whose parents did not want them to take part, it is difficult to establish the exact response rate. However, a total of 903 children were enroled in Year 10 at the three schools in the 2 years, which would be equivalent to a response rate of 80%. The true rate may be higher than this as enrolment numbers tend to overestimate those attending the school.

MEASURES

Empathy

Empathy was measured using the Basic Empathy Scale (BES) [Jolliffe and Farrington, 2005]. This 20-item scale assesses both cognitive and affective empathy and was designed to measure the degree to which a person understands and shares the emotions of another [Cohen and Strayer, 1996]. An example of a cognitive item would be "*It is hard for me to understand when my friends are sad*", and an example of an affective item would be "*I usually feel calm when other people are scared*". The development of this scale involved the use of principal component analysis to reduce a large number of cognitive and affective items into a smaller number that were internally reliable. Confirmatory factor analysis was used to ensure a good fit of the final scale with both cognitive and affective factors. The reliability of the overall BES was alpha = 0.87, with the reliability of the cognitive scale alpha = 0.79 and the reliability of the affective scale alpha = 0.85.

Bullying

A bullying questionnaire based on that used by Whitney and Smith [1993] was used to measure

bullying in this sample. For the purposes of the present study, only the questions regarding bullying others will be analysed. Direct bullying, both physical (e.g. hitting or kicking others) and verbal (e.g. calling others names) and indirect (e.g. rejecting others) were all included. All questions measured the prevalence and frequency of bullying "this school year", which was an interval of approximately 9 months and close to an entire school year. Students could indicate whether they bullied others "once or twice", "sometimes", "about once a week", "several times a week" or if it had "never happened" in that period.

RESULTS

Prevalence and Frequency of Bullying Among Males and Females

When asked if they had bullied others in "this school year", more than one-quarter of males (26.9%) and one in seven females (14.8%) indicated that they had. This difference was equivalent to a significant odds ratio (OR) of 2.1 (CI = 1.5–3.1). The OR indicates the increased probability of males being involved in bullying [Farrington and Loeber, 2000]. As a rule of thumb, an OR of 2.0 or greater indicates a strong relationship [Cohen, 1996].

The majority of those who took part in bullying did so only once or twice with fewer being involved at greater frequency. Sixteen per cent of males reported being involved in bulling once or twice, 6.9% reported being involved sometimes, 2.1% reported being involved about once a week and only 1.9% reported being involved several times a week. The comparable figures for females were 11% involved once or twice, 2.9% involved sometimes, 0.3% involved about once a week and 0.5% involved several times a week. Males were much more likely to be involved in frequent bullying (sometimes or more often) compared to females (OR = 3.4, CI = 1.8–6.4).

Overall, 10.9% of males indicated that they bullied sometimes or more often and 4.0% of males were involved in bullying at a weekly or greater rate. These figures are higher than those for comparable UK secondary school males reported by Whitney and Smith [1993] (sometimes or greater −8.1% of males; once a week or greater 1.6% of males), but more similar to those found by Olweus [1991] in Norway (sometimes or greater −11.3% of males). For females 4.0% indicated that they had bullied sometimes or more often and only about 1.0% were involved in bullying weekly or more often. These figures are remarkably similar to those reported by Whitney and Smith [1993] for a national sample of UK secondary school females (sometimes or more often −4.1% of females; once a week or more often 0.7% of females), but slightly higher than those reported by Olweus [1991] (sometimes or more often −2.5% of females).

Relationship Between Empathy and Bullying for Males and Females

Table I shows the relationship between empathy and bullying (including the frequency of bullying) amongst males and females. For example, those males who did not report bullying others had a mean score on the cognitive empathy scale of 32.4 compared to 31.5 for those who reported bullying. This difference was not significant. It can be seen that males who did not bully scored higher than those who did bully on cognitive, affective and total empathy, but none of these differences were significant. The effect sizes of −0.18, −0.14 and −0.18 suggest a limited degree of difference in empathy between male bullies and non-bullies. Females who bullied others did not differ from

TABLE I. Comparison of Empathy to Bullying and Frequency of Bullying for Male and Females

	Not bully	Bully	Effect size		Bullied once or twice	Bullied sometimes or more	Effect size	
	M	*M*	*P*	*d*	*M*	*M*	*P*	*d*
Males								
Cognitive empathy	32.4	31.5	n.s.	−0.18	32.2	30.5	n.s.	−0.29
Affective empathy	32.4	31.5	n.s.	−0.14	32.4	30.1	0.05	−0.34
Total empathy	64.8	63.0	n.s.	−0.18	64.7	60.6	0.03	−0.38
Females								
Cognitive empathy	35.1	34.5	n.s.	−0.15	35.0	33.5	n.s.	−0.35
Affective empathy	40.6	38.8	0.02	−0.32	39.6	35.7	0.02	−0.71
Total empathy	75.7	73.4	0.04	−0.28	74.6	69.2	0.02	−0.70

Note: *M* = mean.

those who did not on mean cognitive empathy scores. However, significant differences were found between females who bullied and those who did not on affective and total empathy. For both affective and total empathy, those who bullied scored significantly lower than those who did not.

It is important to note that had males and females been combined into a single category of "bullies", these "bullies" would have been significantly lower on cognitive ($P<0.003$), affective ($P<0.0001$) and total empathy ($P<0.0001$). The non-significant finding for the relationship between low cognitive, affective and total empathy in males and cognitive empathy in females would have been masked by the differences in empathy between males and females.

Relationship Between Empathy and Frequent Bullying

As previously mentioned, those involved in bullying reported being involved at varying frequencies. In order to examine the relationship between empathy and frequent bullying, those who were involved in bullying only once or twice were compared to those who were involved sometimes or more often on the BES. The right-hand columns of Table I show the results. For example, males who reported bullying once or twice had a mean score of 32.2 on the cognitive empathy scale compared to 30.5 for those who reported bullying sometimes or more often. This difference was not significant. Interestingly, male frequent bullies had significantly less affective and total empathy than those involved only once or twice.

Because of the small number of females involved in bullying, sometimes or more often ($n=13$) the comparison of levels of empathy to frequency of bullying in females should be treated as exploratory only. In light of these small numbers, however, it was surprising that females who reported being involved in bullying sometimes or more often had significantly less affective and total empathy than those who were involved only once or twice. The effect sizes of these comparisons were substantial ($d=0.71$ for affective and $d=0.71$ for total).

The above results provide insight into the previously identified difference between females who reported bullying and those who did not. It appears that the significant difference in affective and total empathy results from the very low empathy of a small number of high-frequency bullies. In fact, females who reported bullying once or twice did not differ on the cognitive, affective and total measure of empathy from those who did not bully ($t=0.2$, 1.0 and 0.8, respectively).

Type of Bullying Amongst Males and Females

Males and females were asked about the ways in which they had bullied others. Table II shows the results. The percentages do not add up to 100 because children could be involved in more than one type of bullying. For males, the most common form of bullying was other name calling (17.8%), followed by physical bullying (14.1%). Racial name calling was the least common form of bullying (2.7%). The most common form of bullying among females was other name calling (9.9%), followed by avoiding talking to someone (5.2%). No females were involved in racial name calling, and taking belongings away was the next least prevalent type of bullying reported by females (0.6%).

In line with previous research, males were much more likely than females to be involved in most types of bullying. Males were significantly more likely than females to be involved in racial name calling, other name calling, physical bullying, threatening and taking belongings away. Interestingly, males and females did not differ significantly from one another on indirect types of bullying (avoiding talking to someone, spreading rumours or writing graffiti). This is in line with previous research which has established that females tend to make more use of indirect forms of aggression [e.g. Lagerspetz et al., 1988].

An analysis of the relationships between the types of bullying was used to combine the seven types of bullying into three categories. This was done by examining the associations of the different types of bullying using ORs separately for males and females. The results of this analysis can be seen at

TABLE II. Prevalence of Different Types of Bullying

	Males (%)	Females (%)	OR
Racial name calling	2.7	0[a]	9.4*
Other name calling	17.8	9.9	2.0*
Physically hurt	14.1	2.3	6.9*
Threatened	8.8	4.4	2.1*
Avoided talking to someone	6.4	5.2	1.2
Spread rumours wrote graffiti	3.7	1.5	2.6
Took belongings away	2.9	0.6	5.2*
Name calling	18.6	9.9	2.1*
Violent bullying	18.1	6.4	3.2*
Indirect bullying	7.4	5.8	1.3

*$P<.05$.
[a]One was imputed to calculate the odds ratio.

the bottom of Table II. The first category included name calling and racial name calling. The second category included physical assault, threatening and taking belongings away. Physical assault was related to threatening and significantly related to taking belongings away, while threatening and taking belongings away were also highly related. The final category involved indirect bullying which included purposefully avoiding others and spreading rumours/writing graffiti about others. These types of bullying were significantly related.

Table II shows that males were significantly more likely to commit violent bullying and name calling, but not significantly more likely to commit indirect bullying.

The Relationship Between Empathy and Type of Offending

Table III shows the mean scores on the BES for those males and females who did not bully compared to those who took part in different types of bullying. At the top of Table III it can be seen that males who bullied by name calling did not differ in cognitive, affective or total empathy from those who did not do this. The small effect sizes suggest that this non-significant finding is not merely the result of small numbers. There was a tendency for males who bullied violently to have lower cognitive ($d = -0.19$) and affective empathy ($d = -0.18$) than those who did not bully, but this was not significant. Males who bullied violently did have significantly less total empathy than those who did not bully. Also, males who used indirect bullying did not differ significantly on empathy from those who did not bully.

The bottom of Table III shows the mean scores on the BES for those females who did not bully compared to those who took part in different types of bullying. It can be seen that females who bullied by name calling did not differ significantly on cognitive, affective or total empathy from those who did not bully. However, the effect size of the affective ($d = -0.23$) and total empathy ($d = -0.18$) comparison suggest significant differences may have resulted if greater numbers were available. There was a tendency for females who bullied violently to have lower affective empathy ($d = -0.33$) than those who did not bully, but this difference was not significant, again because of small numbers. Females who bullied others using indirect methods had significantly less affective and total empathy than those who did not. The effect size of the cognitive comparison ($d = -0.25$) suggests that females who bullied indirectly may also have lower cognitive empathy than those who did not bully.

TABLE III. Comparison of Empathy to Types of Bullying for Males and Females

Males	Not bully *M*	Name calling *M*	*P*	*d*
Cognitive empathy	32.4	32.1	n.s.	−0.06
Affective empathy	32.4	32.2	n.s.	−0.03
Total empathy	64.8	64.3	n.s.	−0.05
	Not Bully *M*	Violent bullying *M*	*P*	*d*
Cognitive empathy	32.4	31.2	n.s.	−0.19
Affective empathy	32.4	31.2	n.s.	−0.18
Total empathy	64.8	62.4	0.05	−0.24
	Not bully *M*	Indirect bullying *M*	*P*	*d*
Cognitive empathy	32.4	32.4	n.s.	0.0
Affective empathy	32.4	31.1	n.s.	−0.20
Total empathy	64.8	63.5	n.s.	−0.14
Females	Not bully *M*	Name calling *M*	*P*	*d*
Cognitive empathy	35.1	34.8	n.s.	−0.08
Affective empathy	40.6	39.3	n.s.	−0.23
Total empathy	75.7	74.2	n.s.	−0.18
	Not bully *M*	Violent bullying *M*	*P*	*d*
Cognitive empathy	35.1	34.6	n.s.	−0.13
Affective empathy	40.6	38.7	n.s.	−0.33
Total empathy	75.7	73.3	n.s.	−0.29
	Not bully *M*	Indirect bullying *M*	*P*	*d*
Cognitive empathy	35.1	34.1	n.s.	−0.25
Affective empathy	40.6	38.4	0.05	−0.38
Total empathy	75.7	72.5	0.05	−0.38

Note: M = mean.

The Relationship Between Low Empathy, Frequency and Violence for Males

The results thus far have suggested that males who bully violently have lower empathy than those who do not. This is in line with previous research which has postulated a unique relationship between an inability to experience or understand the emotions of another and physical aggression [Ellis, 1982; Marcus and Gray, 1998]. This suggestion is based on the assumption that during a violent interaction the emotions of the victim are clearly available to the perpetrator and an inability to react to these emotions is evidence of a lack of empathy. However,

the current results have also suggested that males who bully frequently also have low empathy. Therefore, while there may be a relationship between low empathy and violence, this relationship may be accounted for by the relationship between low empathy and frequent offending.

While there is widespread belief in the literature that there is something unique about those willing to act violently [e.g. Mulloy et al., 1999; Serin and Kuriychuk, 1994], previous research on the relationship between violent and frequent offending has suggested that those who commit violence are also the most frequent offenders [Loeber et al., 1998]. Furthermore, Farrington [1991] used the Cambridge Study in Delinquent Development to demonstrate that there was little specialization in violence in a criminal career. He concluded that the commission of a violent offence in a criminal career was largely a function of frequent offending. This finding has been replicated in the Philadelphia Perinatal Cohort [Piquero, 2000] and the Oregon Youth Study [Capaldi and Patterson, 1996].

In the current project, there was a significant relationship between a high frequency of bullying and violent bullying in males. Only half of those who had only bullied once or twice had been involved in violent bullying, compared to 83% of those who had bullied sometimes or more often. This was equivalent to an OR of 3.7 ($P < 0.004$).

It would have been desirable to use 2×2 factorial ANOVAs (bully sometimes or more often vs. bullied once or twice $\times$ violent vs. non-violent) to disentangle the relationship between violence and frequency and low empathy. Unfortunately, the numbers were too small to permit this analysis. Specifically, there were only seven males who bullied once or twice and bullied violently.

The mean scores of violent and frequent male bullies are presented in Table IV. It can be seen that for cognitive, affective and total empathy, bullies who were both non-violent and non-frequent bullies had higher empathy than those who were violent and frequent. Those who bullied violently (both frequent and non-frequent) had only marginally lower cognitive and affective empathy than those who did not bully violently. However, those who were frequent but non-violent were found to have lower empathy than those who were violent but non-frequent ($d = -0.33$).

TABLE IV. Mean Scores of Empathy of Frequent and Violent Male Bullies

	Cognitive	Affective	Total
NV, NF	32.9	31.8	64.7
NV, F	31.8	32.9	62.0
V, NF	29.4	32.6	64.7
V, F	30.7	29.6	60.3

Note: F, frequent; NF, non-frequent; NV, non-violent; V, violent.

DISCUSSION

In line with previous bullying research, males were much more likely to be involved in bullying than females. This was true of all of the different types of bullying except indirect methods of bullying. Furthermore, amongst those who bully, males were much more likely to be involved in frequent bullying compared to females. The consistency of these findings across the literature, and the substantial difference between males and females on the prevalence and frequency of bullying, suggests that theories about the causes of bullying should be tested separately for males and females.

Comparisons of the level of empathy between those who reported bullying to those who did not produced a similar pattern of results for males and females but at different absolute levels. Males who reported bullying did not differ from non-bullies on any of the measures of empathy, however, males who bullied frequently were found to be deficient in both affective and total empathy. Interestingly, females who bullied also had significantly lower affective and total empathy than females who did not, but an exploratory analysis suggested that this bully/non-bully difference may have been the result of the very low empathy of a small number of high-frequency female bullies. The significant disparity between the levels of empathy for males and females would have concealed this pattern and, instead, produced an artifactual result: that those who report bullying others, at any frequency have low cognitive, affective and total empathy.

It should not be surprising that those who report bullying do not necessarily have low empathy. Bullying is not a rare occurrence with over 1 in four males and 1 in seven females taking part. However, a large proportion of this bullying is name calling occurring only once or twice. Whether this behaviour should truly be considered bullying is debatable, and certainly one would not expect those who took part in this relatively minor low-frequency event to have low empathy. However, for both males and females only a comparably small number took part in frequent bullying and it is these who had low empathy.

Males who bullied violently, a more serious type of bullying, also had low empathy. This was in line with the proposed relationship between deficient empathy and all types of violence [e.g. Ellis, 1982; Marcus and Gray, 1998]. Females who took part in indirect bullying demonstrated lower affective and total empathy. Interestingly, females who committed violence did not have significantly lower empathy than those who did not. This may have been a result of the small numbers as the effect sizes did indicate possible differences. Alternatively, this may have been related to the different types of bullying which comprised the violent bullying category. For males, most of those who were categorized as bullying violently had physically hit or kicked (77%), whereas most females who bullied violently had threatened others (68%).

It is important to note that the deficiencies in empathy for male and females frequent bullies were affective, rather than cognitive. This emotional congruence is often considered to be the essence of empathy regardless of how it is cognitively mediated [e.g. Feshbach, 1975]. Furthermore, previous researchers have emphasized the importance of the affective component of empathy when theorizing about empathy's role in inhibiting aggressive behaviour [e.g. Feshbach, 1975; Hoffman, 1982].

The results regarding the significant negative relationship between bullying and affective empathy, but not cognitive empathy, may also explain the disparate findings in the literature. That is, the research by Endresen and Olweus [2002] which identified a significant negative relationship between empathy and bullying, used a measure of affective empathy. However, the measure of empathy employed by Sutton et al. [1999], who found a positive relationship between their measure of empathy and bullying, was a measure of cognitive empathy. It is quite possible that bullies have sufficient (or even elevated) cognitive empathy, but are deficient in affective empathy. Sufficient cognitive empathy could facilitate the recruitment of others to bully, and this understanding of another's emotions would help devise particularly effective methods of bullying [Sutton et al., 1999]. Deficient affective empathy would remove the vicarious experience of fear and torment which the bully causes to his or her victim.

The division between cognitive and affective empathy has also been proposed in psychopathy, a constellation of psychological and behavioural traits which significantly increases the likelihood of criminal offending and violence [Hart et al., 1995]. It has been suggested that psychopaths possess sufficient cognitive empathy which facilitates their characteristic glibness and superficiality, but are deficient in affective empathy, which is demonstrated by their characteristic shallow affect and lack of empathy [Tangney and Stuewig, 2004].

As with all research, this project has limitations. As it was based on only three schools, it is hard to know how far its results can be generalized. Ideally, this project should be replicated in a larger number of schools. This might allow for a more detailed investigation of the relationship between empathy and frequency of offending, and the relationships between low empathy, violence and high frequency. This project's cross-sectional design means that it cannot establish causal order. Specifically, low empathy may cause bullying, or bullying may cause low empathy.

The findings of this paper suggest that, if future longitudinal research can establish that low empathy does have a causal effect on bullying, then anti-bullying programmes which focus on empathy enhancement may be beneficial to some but not others. Empathy enhancement would be of little benefit to males and females who only take part in name calling once or twice. However, enhancement might be effective with male high-frequency bullies and male violent bullies, and with female high-frequency bullies and females involved in indirect bullying. However, these males and females only appear to be deficient in affective empathy. The degree to which those who bully can be taught to experience the emotions of others is questionable, and might explain why violent and frequent offenders are notoriously difficult to treat [Mulloy et al., 1999].

The finding that low empathy was related to the frequency of bullying for males but not the prevalence highlights how different factors might be related to different features of bullying. Future longitudinal research should attempt to establish the factors associated with the onset, prevalence, frequency and escalation of bullying. Furthermore, those features associated with desistance from bullying could be incorporated into future antibullying programmes.

REFERENCES

Batson CD, Fultz J, Schoenrade PA. 1987. Adults' emotional reactions to the distress of others. In: Eisenberg N, Strayer J (eds): "Empathy and its Development," Cambridge: Cambridge University Press, pp 163–184.

Bernstein JY, Watson MW. 1997. Children who are targets of bullying: A victim pattern. J Interpers Violence 12:483–498.

Braaten EB, Rosen LA. 2000. Self-regulation of affect in attention deficit hyperactivity disorder (ADHD) and nonADHD boys: Differences in empathic responding. J Consult Clin Psychol 68: 313–321.

Bryant BK. 1982. An index of empathy for children and adolescents. Child Dev 53:413–425.

Capaldi DN, Patterson GR. 1996. Can violent offenders be distinguished from frequent offenders? Prediction from childhood to adolescence. J Res Crime Delinquency 33:206–231.

Cohen P. 1996. Childhood risks for young adult symptoms of personality disorder: Method and substance. Mulivariate Behav Res 31:121–148.

Cohen D, Strayer J. 1996. Empathy in conduct-disordered and comparison youth. Dev Psychol 32:988–998.

Davis MH. 1983. Measuring individual differences in empathy: Evidence for a multidimensional approach. J Pers Soc Psychol 44: 113–126.

Ellis PL. 1982. Empathy: A factor in antisocial behavior. J Abnorm Child Psychol 10:123–134.

Endresen IM, Olweus D. 2002. Self-reported empathy in Norwegian adolescents: Sex-differences, age trends, and relationship to bullying. In: Stipek D, Bohart A (eds): ''Constructive and Destructive Behavior. Implications for Family, School, & Society,'' Washington: American Psychological Association, pp 147–165.

Farrington DP. 1991. Childhood aggression and adult violence: Early precursors and later life outcomes. In: Pepler DJ, Rubin KH (eds): ''The Development and Treatment of Childhood Aggression,'' Hillsdale, NJ: Lawrence Erlbaum, pp 5–29.

Farrington DP. 1993. Understanding and preventing bullying. In: Tonry M (ed): ''Crime and Justice,'' Vol. 12. Chicago, IL: University of Chicago Press, pp 381–458.

Farrington DP, Loeber R. 2000. Some benefits of dichotomisation in psychiatric and criminological research. Crim Behav Mental Health 10:100–122.

Farrington DP, Painter KA. 2004. ''Gender Differences in Offending: Implications for Risk-Focussed Prevention,'' London: Home Office Online Report 09/04.

Feshbach ND. 1975. Empathy in children: Some theoretical and empirical considerations. Couns Psychol 5:25–30.

Feshbach ND, Feshbach S. 1982. Empathy training and the regulation of aggression: Potentialities and limitations. Acad Psychol Bull 4:399–413.

Hare RD. 1999. Psychopathy as a risk factor for violence. Psychiat Quart 70:181–197.

Hart SD, Cox DN, Hare RD. 1995. ''The Hare PCL: Screening Version Toronto,'' Ontario: Multi-Health Systems.

Hoffman M. 1982. The development of prosocial motivation: Empathy and guilt. In: Eisenberg N (ed): ''The Development of Prosocial Behavior,'' New York: Academic Press, pp 281–313.

Hogan R. 1969. Development of an empathy scale. J Consult Clin Psychol 33:307–316.

Jolliffe D, Farrington DP. 2004. Empathy and offending: A systematic review and meta-analysis. Aggr Violent Behav 9: 441–476.

Jolliffe D, Farrington DP. 2005. Development and Validation of the Basic Empathy Scale. Unpublished Manuscript.

Kaukiainen A, Bjorkqvist K, Lagerspetz K, Osterman K, Salmivalli C, Rothberg S, Ahlbom A. 1999. The relationship between social intelligence, empathy, and three types of aggression. Aggr Behav 25:81–89.

Lagerspetz KMJ, Bjorkvist K, Berts M, King E. 1982. Group aggression among school children in three schools. Scand J Psychol 23:45–52.

Lagerspetz KMJ, Bjorkvist K, Peltonen T. 1988. Is indirect aggression typical of females: Gender differences in aggressiveness in 11- to 12–year old children. Aggr Behav 14:403–414.

Lennon R, Eisenberg N. 1987. Gender and age differences in empathy and sympathy. In: Eisenberg N, Strayer J (eds): ''Empathy and its Development,'' Cambridge: Cambridge University Press, pp 195–218.

Loeber R, Farrington DP, Waschbusch DA. 1998. Serious and violent juvenile offenders. In: Loeber R, Farrington DP (eds): ''Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions,'' Thousand Oaks, CA: Sage, pp 13–29.

Loeber R, Farrington DP, Stouthamer-Loeber M, Moffitt TE, Caspi A, White HR, Wei EH, Beyers JM. 2003. The development of male offending: Key findings from 15 years of the Pittsburgh Youth Study. In: Thornberry TP, Krohn MD (eds): ''Taking Stock of Delinquency: An Overview of Findings from Contemporary Longitudinal Studies,'' New York: Kluwer, Academic/Plenum Press, pp 93–136.

Marcus RF, Gray L. 1998. Close relationships of violent and nonviolent African American delinquents. Violence Victims 13: 31–46.

Mehrabian A, Epstein N. 1972. A measure of emotional empathy. J Pers 40:525–543.

Miller PA, Eisenberg N. 1988. The relation of empathy to aggressive and externalizing/antisocial behavior. Psychol Bull 103:324–344.

Moffitt TE, Henry B. 1989. Neuropsychological deficit and self-reported delinquency in an unselected birth cohort. J Am Acad Child Adoles Psychiatry 27:233–240.

Mulloy R, Smiley WC, Mawson DL. 1999. The impact of empathy training on offender treatment. Focus Corrections Res 11:15–18.

Olweus D. 1978. ''Aggression in the Schools,'' Washington, DC: Hemisphere.

Olweus D. 1991. Bully/victim problems among school children; Basic facts and effects of a school based intervention program. In: Pepler DJ, Rubin KH (eds): ''The Development and Treatment of Childhood Aggression,'' Hillsdale, NJ: Lawrence Erlbaum, pp 411–448.

Olweus D. 1993. ''Bullying at School,'' Oxford, UK: Blackwell.

Piquero AR. 2000. Assessing the relationship between gender, chronicity, seriousness and offence skewness in criminal offending. J Crim Justice 28:103–116.

Rigby K. 1996. ''Bullying in Schools and What to do About it,'' London, UK: Jessica Kingsley.

Rigby K, Slee PT. 1999. Australia. In: Smith PK, Morita Y, Junger-Tas J, Olweus D, Catalano R, Slee P (eds): ''The Nature of School Bullying,'' London, UK: Routledge, pp 324–339.

Roland E. 1989. Bullying: The Scandinavian research tradition. In: Tattum DP, Lane DA (eds): ''Bullying in Schools,'' Trentham. UK: Stoke-on-Trent, pp 21–32

Schonert-Reichl KA. 1993. Empathy and social relationships in adolescents with behavioural disorders. Behav Disorders 18: 189–204.

Serin RC, Kuriychuk M. 1994. Social and cognitive deficits in violent offenders. Int J Law Psychiatry 17:431–441.

Smith PK. 1991. The silent nightmare: Bullying and victimisation in school peer groups. In: Smith PK, Thompson D (eds): ''Practical Approaches to Bullying,'' London: David Fulton, pp 1–12.

Smith PK. 2004. Bullying: Recent developments. Child Adolescent Mental Health 9:98–103.

Smith PK, Sharp S. 1994. The problem of school bullying. In: Smith PK, Sharp S (eds): "School Bullying: Insights and Perspectives," London: Routledge, pp 1–19.

Smith PK, Thompson D. 1991. Dealing with bully/victim problems in the UK. In: Smith PK, Thompson D (eds): "Practical Approaches to Bullying," London: David Fulton, pp 1–12.

Sutton J, Smith PK, Swettenham J. 1999. Social cognition and bullying: Social inadequacy or skilled manipulation. Br J Dev Psychol 17:435–450.

Tangney J, Stuewig J. 2004. A moral emotion perspective on evil persons and evil deeds. In: Miller A (ed): "The Social Psychology of Good and Evil: Understanding our Capacity for Kindness and Cruelty," New York: Guilford Press, pp 327–358.

Tattum D. 1993. What is bullying? In: Tattum D (ed): "Understanding and Managing Bullying," Oxford: Heinemann School Management, pp 3–14.

Unnever JD, Cornell DG. 2003. Bullying, self-control, and ADHD. J Interpers Violence 18:129–147.

Warden D, Mackinnon S. 2003. Prosocial children, bullies and victims: An investigation of their sociometric status, empathy and social problem-solving strategies. Br J Dev Psychol 21:367–385.

Whitney I, Smith PK. 1993. A survey of the nature and extent of bullying in junior/middle and secondary schools. Educ Res 35: 3–25.

Ziegler S, Rosenstein-Manner M. 1991. "Bullying in School," Toronto: Board of Education.