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Relationships between bullying behaviours and the Dark Triad: A study with adults

Holly M. Baughman, Sylvia Dearing, Erica Giammarco, Philip A. Vernon*

Department of Psychology, University of Western Ontario, London, Ontario, Canada

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ABSTRACT

The current study is the first to directly investigate relationships between the Dark Triad personality traits and bullying behaviours. We also sought to design a reliable measure of bullying for use with an adult sample. The sample consisted of 657 participants (203 males; 454 females), aged 18 to 70 (*M* = 23.1, *SD* = 8.65). Participants completed the Short-D3, a measure of the Dark Triad personality traits, as well as a Bullying Questionnaire which was constructed for this study. Correlational analyses demonstrated that psychopathy was most strongly related to bullying, followed by Machiavellianism, and narcissism. However, our predictions for the differential correlations between the Dark Triad facets and bullying type were generally not supported. Implications are discussed.

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1. Introduction

Bullying is a universal problem for elementary and high school students, with prevalence rates demonstrating that almost 30% of teens are involved in bullying as either a bully, a victim, or both (Nansel et al., 2001). Males typically report experiencing more physical forms of bullying, and females are generally victims of indirect bullying (Undheim & Sund, 2010). Long-term effects of bullying for both bullies and victims include an increased risk for depression and loneliness (O'Moore, 2000), lowered self-esteem for girls, higher involvement in delinquent behaviour (Carbone-Lopez, Esbensen, & Brick, 2010) and a decrease in academic performance (Schwartz, Gorman, Nakamoto, & Toblin, 2005). However, much remains uncovered regarding the characteristics of bullies, victims, and bystanders which might permit the development of appropriate intervention strategies for these individuals.

2. Literature on childhood bullying

Three specific bullying criteria have been identified by Olweus (1995) to classify these behaviours. These criteria are: (1) aggressive behaviour directed toward an individual or group, which (2) happens repeatedly and over time, where (3) an imbalance of power is evident. A fourth criterion-the intent to harm the vic-

tim-has also been considered (Peterson & Rigby, 1999). While six participant roles have been identified in bullying research, these roles are often condensed into three broader categories: bullies, victims, and bystanders (Huang & Chou, 2010).

A number of factors may influence which participant role an individual assumes. For instance, research has examined how environmental and interpersonal factors such as social status (Caravita, Di Blasio, & Salmivalli, 2009) and schools and the internet (Mason, 2008; Sutton, Smith, & Swettenham, 1999) contribute to participant roles. Theories of cognitive and social empathy have also been used to explain why some bullies score well on tests of social intelligence, but display antisocial behaviours during observation (Ang & Goh, 2010). These studies have spurred interest into the investigation of bullies' personality traits. The present study aims to provide further understanding of the personality traits of bullies by examining a specific group of traits—the Dark Triad— that has been linked to aggression.

Bullying is strongly associated with childhood, and research has largely overlooked general bullying behaviour in adults with the exception of workplace bullying. In the workplace however, personnel managers have replaced the term 'bullying' with 'harassment', to refer to a broader range of aggressive behaviours (Adams, 1992). This causes researchers to lose sight of more serious types of aggression which also occur in adults (Randall, 1997). For this reason, a sample of adult participants was used in the present study. Evidence suggests that bullying in childhood and adulthood are similar, although occurring in different settings (Randall, 1997).

^{*} Corresponding author. E-mail address: vernon@uwo.ca (P.A. Vernon).

3. Direct and indirect aggression

Research has identified two broad subtypes of aggression that may lead to different types of bullying. Direct aggression is characterised by openly confrontational behaviours in an attempt to directly harm the victim (Griffin & Gross, 2004). Conversely, indirect aggression refers to the use of non-confrontational methods to harm or damage another's peer relationships. With indirect aggression, the perpetrator cannot always easily be identified (Cappella & Weinstein, 2006), which provides a sense of anonymity and security. The identification of these disparate types of aggression suggests that bullies use various methods to aggress against others. As such, it is important to further understand how bullies differ from one another.

4. Characteristics of bullies

Researchers have traditionally believed that some bullies cannot adequately process social information (Randall, 1997). The Social Information Processing model attempts to explain a deficiency in social competence among bullies, and assumes that maladaptive behaviours are preceded by poor social abilities (Arsenio & Lemerise, 2001). However, this model has been criticised for relying too heavily on theoretical premises rather than empirical data (Peeters, Cillessen, & Scholte, 2010). Moreover, an assumption of the Social Processing model is that all bullies have similar social abilities, yet researchers are continually finding that some bullies excel in areas where others do not (Gasser & Keller, 2009).

Recent studies suggest that some bullies have a strong sense of cognitive empathy, or theory of mind, which helps them to bully more effectively. Theory of mind refers to the ability to understand that each person has a unique perspective on reality (Renouf et al., 2010). This ability allows children to describe, predict, and explain the behaviours of others (Wellman, Cross, & Watson, 2001). In Sutton et al.'s (1999) study on cognitive skills and bullying, bullies who consider themselves leaders, scored higher in total social cognition than victims, follower bullies, and defenders.

Additionally, perceived peer popularity may explain some of the variation within the heterogeneous bully group (LaFontana & Cillessen, 2002). Prinstein and Cillessen (2003) challenged traditional beliefs of aggressive children as the loner-type, finding that bullies tend to possess higher social status. This interesting observation raises the question, why do some children who experience social success go on to bully others?

5. The Machiavellian bully

Machiavellianism refers to the tendency to manipulate and deceive others in social situations for personal gain (Christie & Geis, 1970). Peeters et al. (2010) found that the prevalence of Machiavellianism is higher in adolescents who engage in indirect bullying, since social manipulation is required for successful acts of relational aggression. These children may perceive aggression and manipulation as necessary to maintain social status or power within a group (LaFontana & Cillessen, 2002).

Those who score high on Machiavellianism also tend to score higher on measures of cognitive empathy (Sutton et al., 1999), suggesting that the ability to manipulate others in social situations is related to the ability to predict and describe the behaviours of others. Notably, children who demonstrate indirect aggression score higher in cognitive empathy, but only among those low in prosocial behaviour (Renouf et al., 2010) Therefore, it appears as though some bullies use this cognitive ability to engage in successful acts of manipulation in social groups.

6. The narcissistic bully

Narcissism involves feelings of grandiosity, a sense of entitlement, and vanity (Kerig & Stellwagen, 2010). While these individuals appear egocentric, it is often the case that they truly possess a relatively low self-esteem. In what has been termed the Theory of Threatened Egoism, it is proposed that narcissism directly contributes to aggression (Washburn, McMahon, King, Reinecke, & Silver, 2004), and may be a defense mechanism to protect a fragile self-esteem. Bushman and Baumeister (1998) found that aggression occurs only when a Narcissistic Injury—a psychological injury to one's self esteem (Goldberg, 1973)—occurs. Furthermore, this aggression manifests as direct aggression (Kerig & Stellwagen, 2010). Threatened Egoism has been used to explain why some children with seemingly high self-esteem aggress against others.

7. Psychopathy and aggression

Three clusters of traits have been identified within the construct of psychopathy: impulsivity, callous-unemotional (CU) traits, and narcissism. Impulsivity is a multi-faceted construct, which has been defined as an increased response to provoked attacks and disinhibition of social restraints (Kerig & Stellwagen, 2010). CU traits reflect interpersonal coldness, such as a lack of empathy or guilt. Both impulsivity and CU traits have been linked to aggression, and CU traits in particular correlate positively with proactive and reactive aggression (Fanti, Frick, & Georgiou, 2009).

8. Dark Triad and aggression

The Dark Triad refers to a combination of three socially undesirable traits: sub-clinical narcissism, Machiavellianism, and sub-clinical psychopathy (Paulhus & Williams, 2002). Although these traits are correlated—and thus merit being clustered together—correlations among them are typically quite modest (e.g., Paulhus & Williams, 2002), so each may also be viewed as a distinct aspect of socially aversive behaviour.

Although the Dark Triad has not been studied in relation to bullying among adults directly, recent studies have explored aspects of Dark Triad traits in relation to childhood aggression (Kerig & Stellwagen, 2010). Machiavellianism has been positively linked to adolescent bullying (Peeters et al., 2010), while psychopathy and narcissism have been positively related to aggression but not to bullying (Stickle, Kirkpatrick, & Brush, 2009).

9. The present study

The purpose of the present study is to extend understanding of bullies by examining bullying styles in relation to the Dark Triad, as well as to design a Bullying Questionnaire suitable for an adult population. Previous studies have used a variety of methods to measure bullying in children (see Ang & Goh, 2010; Nansel et al., 2001; Olweus, 1995), whereas the area of adult bullying is hindered by inappropriate measurement techniques (Cowie, Naylor, Rivers, Smith, & Pereira, 2002). While links to proactive and reactive aggression have been made in previous literature (see Calvete, Orue, Estévez, Villardón, & Padilla, 2009), the Dark Triad has not vet been investigated in relation to direct and indirect bullying.

It is hypothesised that individuals high in Machiavellianism and/or narcissism will report significantly higher rates of indirect than direct bullying, while psychopathy was expected to correlate more strongly with direct bullying. It is also hypothesised that psychopathy will correlate more strongly than the other Dark Triad traits to overall bullying behaviour, whereas narcissism is expected show the lowest correlations.

10. Method

10.1. Participants

The sample in this study consisted of 657 participants (203 males; 454 females), aged 18 to 70 (*M* = 23.1, *SD* = 8.65). Participants were recruited through posters at the University of Western Ontario, via online advertisements, and by e-mails sent through the University of Western Ontario Directory. Participants were also recruited through Facebook, whereby other participants who had previously completed the survey posted a short paragraph on their Facebook page encouraging others to participate. Following the completion of the survey, participants were entered into a draw to win 1 of 15 \$100 prizes.

11. Materials

11.1. The Short D3

The Dark Triad personality traits were measured using the Short-D3 (Paulhus & Williams, 2002), consisting of 28 items, measured on a 5-point Likert scale (1 = disagree strongly; 5 = agree strongly). The Short-D3 contains three subscales which reflect the three Dark Triad personality traits: narcissism ("I like to be the centre of attention"; 9 items), Machiavellianism ("It's not wise to tell your secrets"; 10 items), and psychopathy ("I like to pick on losers"; 9 items). In our sample, Cronbach's alpha reliability coefficients were .73 for Machiavellianism, .71 for narcissism, and .78 for psychopathy.

11.2. Bullying Questionnaire

The Bullying Questionnaire is a new measure created for this study to assess bully status and type. Several of the items on this measure were based on an aggression scale constructed by Taki et al. (2008). Because cyberbullying has recently become more apparent (Smith, Mahdavi, Carvalho, & Tippett, 2006), two items regarding cyberbullying were also included. On a 5-point Likert scale (1 = never; 5 = always), participants were asked to indicate how frequently they have engaged in each of 17 bullying behaviours during the past month. The Bullying Questionnaire contains four subscales: Physical Direct (e.g., "I forcefully pushed/pulled someone"), Verbal Direct (e.g., "I threatened to harm another person"), Direct (the sum of Physical and Verbal Direct), and Indirect (e.g., "I made friends with a person to 'get back' at someone else"). An overall bullying score was also obtained as the sum of all 17 items. Reliabilities for these subscales and total score in the present sample range from .69 to .89 and appear in the main diagonal in Table 2.

12. Procedure

Participants were directed to the website Survey-Monkey, where they read a letter of information and provided their consent. Participants then completed a demographics form and a series of electronic questionnaires including the Short-D3, the Bullying Questionnaire, and others not relevant to the current study.

Upon completion of the questionnaires, participants were debriefed, entered into a draw, and prompted to post a short paragraph on their Facebook page encouraging others to participate in the study. The study took approximately 45 min to complete.

13. Results

Table 1 shows intercorrelations among and between each of the Short-D3 and Bullying Questionnaire variables. Moderate to high

correlations were found among Machiavellianism, narcissism, and psychopathy, higher than those previously reported by Paulhus and Jones (2011). The three Dark Triad variables also had low to moderate correlations with all subscales of the Bullying Questionnaire, with psychopathy displaying the largest correlations and narcissism the lowest. Notably, Machiavellianism was most highly correlated with Verbal Direct Bullying (r = .35), narcissism with Indirect Bullying (r = .21), and psychopathy with Direct Bullying (r = .53). All correlations were significant at p < .01. Not surprisingly, given its higher reliability, correlations between the total bullying score and the Dark Triad tended to be the highest. In lieu of computing a canonical correlation between the bullying and Dark Triad variables, given this procedure's sensitivity to capitalisation on chance and yielding inflated correlations, we computed a total Dark Triad score as the simple sum of scores on Machiavellianism, narcissism, and psychopathy and correlated this with the total bullying score. This correlation is .58 and represents the maximum possible zero-order correlation that might be found between the two sets of variables in our sample.

Cronbach's reliability coefficients are reported in the diagonal of Table 2, and indicate high internal consistency for all subscales. The alpha values for Machiavellianism, narcissism, and psychopathy are similar to those reported by Paulhus and Jones (2011). The alpha values for the bullying subscales and total score are adequate to very good.

An exploratory factor analysis with oblimin rotation was conducted on the items of the Bullying Questionnaire. Three factors with eigenvalues greater than one were yielded, however the scree plot suggested only one factor. Since the first factor accounted for nearly three times the variance accounted for by factors two and three combined (approximately 39%), a one factor solution was selected, All 17 items on the Bullying Questionnaire had moderate to high loadings on this factor (ranging from .41 to .76), suggesting a relatively strong general factor of bullying. The existence of a general bullying factor, as compared to a model that suggests the presence of distinct types or components of bullying, is further supported by the fact that the disattenuated correlations among the bullying variables in Table 1 (i.e., corrected for unreliability) are very near to 1.0.

Means and standard deviations for males and females on the three subscales of the Short-D3 and the four subscales and total score from the Bullying Questionnaire are reported in Table 2. As can be seen, males reported significantly higher bullying rates across subtypes, as well as higher scores on each of the Machiavellianism, narcissism, and psychopathy subscales. Given our large samples these statistically significant differences are not surprising. More informative, perhaps, are the effect sizes (Cohen's d) which appear in the far right column of Table 2. As can be seen, these range from .17 (Indirect Bullying) to .57 (Psychopathy). Ferguson (2009) recommends that for Social Science data an effect size of .41 is the minimum to allow an interpretation of a "practically" significant result. By this criterion, only the male-female dif-

Table 1
Intercorrelations and reliability coefficients for bullying and Dark Triad variables.

Variables	1	2	3	4	5	6	7	8
1.Machiavellianism 2. Narcissism 3. Psychopathy 4. Physical Direct 5. Verbal Direct 6. Direct 7. Indirect 8. Total Bullying	.73	.35 .71	.48 .42 .78	.22 .11 .41 .69	.35 .20 .51 .65 .83	.34 .20 .53 .83 .97	.33 .21 .49 .60 .74 .76	.35 .22 .55 .80 .94 .97 .89

Note: Cronbach's Alpha for each subscale reported along the diagonal. All correlations are significant at or beyond the .01 level.

Table 2Means and standard deviations for bullying and Dark Triad variables by sex.

Variable	М	М		SD		Effect size
	Male	Female	Male	Female		
Machiavellianism	3.42	3.14	0.60	0.54	5.96***	.50
Narcissism	3.07	2.86	0.58	0.51	4.72***	.39
Psychopathy	2.37	2.04	0.69	0.53	6.01***	.57
Physical Direct	0.46	0.34	0.52	0.43	2.90**	.26
Verbal Direct	0.85	0.69	0.68	0.52	2.96**	.28
Direct	0.72	0.56	0.61	0.45	3.32***	.32
Indirect	0.54	0.46	0.55	0.43	1.98*	.17
Total bullying	0.66	0.52	0.56	0.41	3.03**	.30

^{*} p < .05.

ferences on Psychopathy and Machiavellianism are practically significant; the sex difference on Narcissism (.39) comes close but none of the bullying variables yield practically meaningful differences.

14. Discussion

The present study is the first to directly investigate the relationship between the Dark Triad and bullying behaviours. This study extended the limited literature on bullying in adults, beyond the workplace setting. A reliable measure of bullying was also successfully designed.

The Bullying Questionnaire yielded a one factor solution, which implies the presence of a general bullying factor. This suggests that individuals who engage in bullying incorporate various means to achieve a desired goal. It is not surprising that there was little variability in the magnitude of the correlations between the Dark Triad traits and bullying types, as the intercorrelations among the subscales of the Bullying Questionnaire items were strong.

Overall, our predictions regarding the correlations between the Dark Triad and bullying were supported. Psychopathy was the most strongly related to bullying, followed by Machiavellianism, and narcissism. Males also scored higher on all facets of the Dark Triad; a reliable finding in Dark Triad research (Jonason, Li, Webster, & Schmitt, 2009). Research on psychopathy has demonstrated a higher prevalence among males, especially in CU traits (Grann, 2000). In our study, males also reported participating in bullying more frequently than females, particularly in direct forms of bullying. These findings are consistent with previous literature examining sex differences in bullying among adolescents (Undheim & Sund, 2010; Nansel et al., 2001).

Our predictions regarding differential patterns of correlations between the Dark Triad and the various types of bullying were generally not supported, with one exception—individuals high in narcissism did participate more frequently in Indirect bullying than in Physical Direct bullying. Narcissistic individuals may perceive the costs of being directly aggressive as higher than the benefits of responding in a more socially desirable way in order to maintain their social standing (Mattice, Spitzberg, & Hellweg, submitted). The presence of the general bullying factor underlying the Bullying Questionnaire may explain why our other predictions were not supported.

14.1. Limitations and future research

Although participants in our sample obtained relatively low scores on the Bullying Questionnaire, the correlations between the Dark Triad and bullying are impressive lower-bound estimates of what we would expect to find in a sample with greater variabil-

ity. It is clear that the participants in our study did not endorse the highest scores on items on the Bullying Questionnaire. Since research has demonstrated a negative relationship between IQ and aggression (Huesmann, Eron, Lefkowitz, & Walder, 1984), it is plausible that the large proportion of university students in our sample contributed to the limited variability in within the bullying scores. It would, therefore, be interesting for future research to replicate this study using a general population sample.

Huesmann et al. (1984) propose that bullying behaviour is relatively stable from childhood to adulthood. Results demonstrated that highly aggressive children continue to be highly aggressive as adults. This aggression may manifest into larger problems, such as criminal behaviour. Results of their study also suggest that less aggressive individuals may grow out of their aggression by the age of 19—yet, if an individual continues to be aggressive after the age of 19, they are more likely to continue these aggressive tendencies into adulthood.

The findings of the current study suggest that bullying in adult-hood may be different than in childhood. Therefore, further studies could profitably investigate the nature of adult bullying, beyond workplace harassment and design other measures of direct and indirect bullying for use with adults.

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^{**} p < .01.

^{***} p < .001.

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