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Social ecology and adolescent bullying: Filtering risky environments through antisocial personality

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ABSTRACT

An adaptive social ecological framework was used to determine whether risky environmental factors filtered through four antisocial traits from a contemporary model of personality called the HEXACO to predict direct and indirect forms of bullying. Adolescents (N = 396; M_{age} = 14.64, SD_{age} = 1.52; 58% girls) recruited from Canadian extracurricular organizations completed self-report measures. Through comprehensive overall and system-level models, we found expected indirect effects of parent, peer, school, and neighborhood variables through a predatory, exploitative personality trait for both forms of bullying. Additionally, indirect effects were found through a reckless, impulsive personality trait, although these effects were more frequent for the direct form of bullying. Traits measuring lower empathy and general anger only had direct effects and univariate correlations, respectively. Therefore, risky environmental factors may be indirectly filtered through antisocial personality traits (particularly exploitation) to affect forms of bullying, highlighting the complexity of adolescent bullying social ecology and the heterogeneity needed for intervention and practice.

1. Introduction

Bullying is intentionally harmful behavior used against weaker victims to gain access to immediate material resources (i.e., money, territory), social status (i.e., popularity, social influence), and/or re-productively-relevant benefits (i.e., attracting the opposite-sex, opportunities for dating and sexual partners; Volk, Dane, & Marini, 2014). Bullying peaks during adolescence, with rates ranging from 6.1% (Volk, Craig, Boyce, & King, 2006) to 33% (Craig & Pepler, 1997). During adolescence, several individual and environmental factors may be risks for adolescent bullying (Volk et al., 2006). According to the Ecological Systems Theory (EST; Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006), risks to development and behavior do not occur in isolation. Instead, the EST suggests that multiple nested ecological systems influence one another, and ultimately influence the presence or absence of risky individual behavior (e.g., bullying) that lies at the center of these systems. As a result, systems most proximate to an individual within the EST may directly influence individual bullying behavior, while distal systems in the EST may influence an individual's bullying directly or indirectly by first influencing the more proximate systems related to bullying. For example, ecological studies found support for both direct and indirect effects of proximate individual traits and also broader school and community factors on bullying (Barboza et al.,

2009; Lee, 2011).

The ecological systems may not influence all adolescents to bully in the same way. Instead, under specific types of risky environments, adolescents with different personality traits may respond/and or evoke responses in different ways (Marceau et al., 2013; Moffitt, 2005). Accordingly, just as risky environments may be differentially associated with personality traits, personality traits may be differentially associated with bullying. For example, individual tendencies for fun-seeking has been directly associated with bullying, but was also indirectly associated through school climate and group norms to predict bullying (Lee, 2011). There is also recent evidence for individual traits interacting with community violence to predict deviant and aggressive behavior (Low & Espelage, 2014). Thus, it is evident that individual traits work with broader environments. Of particular interest may be the understudied antisocial personality traits associated with bullying. Recent evidence suggests that direct, overt forms of bullying (e.g., physical hitting or pushing, verbal threatening and teasing) may be related to impulsive, poorer behavioral control, while indirect, covert forms of bullying (e.g., social exclusion, rumor spreading) may be related to predatory, exploitative tendencies (Book, Volk, & Hosker, 2012; Farrell, Della Cioppa, Volk, & Book, 2014). Taken together, the relationships between the risks and outcomes of bullying appear to be complex and should be considered from multiple ecological systems. We therefore

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suggest that the effects of adverse ecological factors from the EST including poorer social relationships, environmental settings, and community norms (Hong & Espelage, 2012) may filter through antisocial personality to encourage different forms of bullying perpetration.

1.1. Bullying and individual characteristics

Age and gender are two important demographic risk factors of bullying. Being younger is often a risk factor for direct bullying, as it peaks during childhood and early adolescence, but being older is often a risk factor for indirect bullying, which is more prevalent during middle and later adolescence (Volk, Farrell, Franklin, Mularczyk, & Provenzano, 2016). In addition, being a boy is a risk for using direct bullying, as it may demonstrate a tough image to deter any same-gender challengers and also attract potential romantic partners. However, being a girl is a risk factor for covert indirect bullying, as it may denigrate same-gender rivals and indirectly enhance their own status (Volk et al., 2014; 2016). These differential age and gender risks likely reflect developmental changes in social-cognitive strategies, and the onset of sexual selection pressures (Pellegrini & Long, 2002). Alongside demographics, personality is another important individual characteristic that may facilitate bullying.

Several studies on personality and bullying used the well-known Five Factor Model (FFM; Costa & McCrae, 1992) of personality. The FFM is an older, but still popular model of personality comprised of five personality traits: Agreeableness, Neuroticism, Conscientiousness, Extraversion, and Openness to Experience. These studies found being argumentative (i.e., lower Agreeableness), impulsive (i.e., lower Conscientiousness), and being more Neurotic were risks for bullying perpetration (e.g., Bollmer, Harris, & Milich, 2006; Tani, Greenman, Schneider, & Fregoso, 2003). Increasingly, researchers in personality are moving from the FFM to the more contemporary, parsimonious six-factor model of personality called the HEXACO. This model has strong evolutionary foundations, and has been consistently replicated across cultures (Ashton & Lee, 2009). Each letter in the model stands for a different trait: Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), and Openness to Experience (O), and each trait varies on a continuum, with different risks and benefits associated with each end. Moreover, this model is parsimonious as it captures traits specifically related to a tendency to be antisocial versus prosocial. At the lower end, Honesty-Humility (H), a trait unique to only this personality model, captures predatory exploitation and manipulation (Ashton & Lee, 2009; Book et al., 2016). Lower Agreeableness (A) captures general anger and an intolerance of others. Lower Emotionality (E) captures lower empathy, lower kin altruism, higher emotional detachment, and lower anxiety and fear. A fourth factor, Conscientiousness (C), tends to capture the tendency to act upon these antisocial outcomes, with the lower end assessing impulsivity and recklessness. Extraversion (X), and particularly Openness to Experience (O), are less predictive of antisocial behaviors (Book et al., 2016). Studies using the HEXACO to explore bullying have shown that these four antisocial traits (i.e., Honesty-Humility, Emotionality, Agreeableness, and Conscientiousness) may be risk factors for perpetration.

When compared to all personality traits, adolescents who were more predatory and exploitative (as assessed through lower Honesty-Humility) significantly engaged in more overall, total level of bullying regardless of form (Book et al., 2012), more direct forms of bullying like verbal, and more indirect forms of bullying like social (Farrell et al., 2014). Despite the strongest association with exploitativeness, being reckless and impulsive (i.e., lower Conscientiousness) was still associated with direct physical bullying, and being generally angry or disagreeable (i.e., lower Agreeableness), and being unempathic (i.e., lower Emotionality) were still associated, although weaker, to the overall total levels of bullying. Thus, the four antisocial traits were all risk factors for bullying. Given that the unique exploitative trait was the strongest personality predictor, the findings suggest that being

intentionally predatory may be the biggest risk factor for bullying, rather than general anger or a lack of empathy. Also, reckless impulsivity may be a secondary risk factor for direct bullying. Accordingly, it appears that there are different personality profiles that put adolescents at risk for bullying, depending on the form of behavior used. These personality profiles may have heritable bases that allow these traits to be natural filters of the environment.

Individual differences in personality may be a result, at least in part, of genotypic variations (Lewis & Bates, 2014). These variations can facilitate differences in how environments are experienced, and ultimately the response of an adolescent to the environment (Marceau et al., 2013; Moffitt, 2005). Bullying has been argued to be an evolutionary adaptation that is the result of the interaction between one's environment and heritable factors (Ball et al., 2008; Volk, Camilleri, Dane, & Marini, 2012). Consequently, the antisocial personality traits in the HEXACO personality model are ideal filters for the more distal risky environments. Under adverse environments that may have minimal risk of identification, repercussions, and sanctions, exploitative, predatory adolescents may take advantage by adaptively bullying for self-gain.

1.2. Bullying and the microsystem

The microsystem includes immediate social relationships (Bronfenbrenner, 1979), which may filter through personality. For example, in a recent study, lower maternal knowledge and being exploitative combined together were risks for engaging in more bullying (Farrell, Provenzano, Dane, Marini, & Volk, 2017). Likewise, a study by Lee (2011) demonstrated that negative family experiences had stronger indirect effects on bullying through child individual tendencies, in comparison to direct effects. Although gene-environment interactions can be bi-directional (Marceau et al., 2013; Moffitt, 2005), and these studies lacked the longitudinal data to determine causal directions, the results nonetheless highlight the potential for adverse environments to filter through antisocial personality to indirectly influence bullying. However, these studies investigated only several forms of risky parenting (i.e., knowledge; style; domestic violence), and an overall total level of bullying. As a result, it may be important to investigate whether similar or different antisocial traits can filter other social relationships and environments to predict both direct and indirect forms of bullying.

For instance, friends play increasingly important roles in decision-making as adolescents become more independent from parents (Volk et al., 2016). Poorer quality friendships characterized by lower conflict resolution and reciprocity have been risk factors for bullying perpetration (Bollmer, Milich, Harris, & Maras, 2005). Negative social relationships, including those with friends, may foster poorer mutuality and concern for others, which may be a risk for both antisocial personality (Ashton & Lee, 2001), and bullying perpetration. Like parenting, poorer friendships may filter indirectly through antisocial personality to facilitate direct and indirect forms of bullying perpetration. Taken together, these microsystem risk factors may filter through antisocial personality to promote both forms of bullying. Similar mechanisms with personality traits may apply to risky mesosystem factors.

1.3. Bullying and the mesosystem

The mesosystem incorporates interactions between microsystem variables, and may be risks for facilitating competitive environments that encourage bullying. Immediate friendships in the microsystem are embedded in the wider peer networks and school classroom atmospheres that comprise the mesosystem. Within this network, adolescents obtain a certain level of status and social influence relative to their peers in the classroom, and bullying may be one way to obtain status. Consequently, popularity may be a risk factor for bullying, and it may rely on the interaction among friends, broader peers, teachers, and school climate, who deem individuals that are socially influential. Adolescents who held characteristics valued by their peers at school