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The association between multilingualism and psychopathic personality traits

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ABSTRACT

Purpose: Although there is a significant quantity of research linking psychopathy with deficits in language skills, no research has explored if there is an association between psychopathy and multilingualism. The current study addresses this gap in the literature by exploring the association between speaking multiple languages and psychopathic personality traits in a large nationally representative sample.
Methods: This study employed data from the National Longitudinal Study of Adolescent to Adult Health (Add Health). The relationship between multilingualism and psychopathic personality traits was first analyzed in the full sample and then tested separately in respondents born in the United States and respondents born outside the United States.
Results: The results indicate that speaking multiple languages is negatively associated with psychopathic personality traits in the full sample and the sample born in the United States. Speaking multiple languages was not found to be significantly associated with psychopathic personality traits in the sample born outside of the United States.
Conclusions: We discuss the implications of these findings in terms of the development of psychopathic personality traits.

1. Introduction

There is a growing body of research examining factors that influence the development of psychopathy and psychopathic personality traits (Blair, Peschardt, Budhani, Mitchell, and Pine, 2006). Findings from much of this research indicate that psychopathic personality traits are influenced by an arrangement of biological, genetic, and environmental influences. Psychopathy, for instance, has been associated with brain abnormalities (Kiehl et al., 2001; Yang, Raine, Colletti, Toga, and Narr, 2009), autonomic nervous system dysfunction (Ishikawa, Raine, Lencz, Bihrle, and Lacasse, 2001), and genetic factors (Waldman and Rhee, 2006). Research on the development of psychopathy also suggests that environmental factors, such as childhood maltreatment (Porter, 1996), parental practices (Salekin and Lochman, 2008), and parental bonding (Gao, Raine, Chan, Venables, and Mednick, 2010), account for a significant amount of variation in psychopathic personality traits.

In a related line of inquiry, variation in psychopathy has been found to be associated with deficits in language and cognitive skills. The results from these studies suggest that psychopaths exhibit disorganized speech patterns and have difficulty allocating attentional resources (Brinkley, Bernstein, and Newman, 1999a; Baskin-Sommers, Curtin, Li, and Newman, 2012). Specifically, psychopaths have been shown to exhibit speech patterns that are less cohesive and include more contradictory statements than nonpsychopaths (Brinkley et al., 1999a; Hare, 1993; Williamson, 1991). Experimental studies examining cognitive abilities indicate that psychopaths have difficulty appropriately switching their attention to pertinent peripheral information while engaged in goal-directed activities (Baskin-Sommers et al., 2012) which may explain their unregulated behavior and disorganized speech patterns. The idea that psychopathy is associated with language deficits is not a recent development and has been a subject of inquiry dating back to the 1970s when Cleckley (1976) suggested that psychopaths may experience "semantic aphasia" which inhibits their ability to process the emotional and semantic aspects of language (Kiehl, Hare, McDonald, and Brink, 1999).

Despite findings indicating a link between psychopathy and language deficits, there has been no research exploring the possible association between variation in psychopathic personality traits and the ability to speak multiple languages. This is a particularly salient omission in the literature because bilingualism has previously been found to be associated with increases in some language and cognitive skills (Adesope, Lavin, Thompson, and Ungerleider, 2010), which, in turn, tend to have negative associations with psychopathy (Baskin-Sommers et al., 2012; Kiehl et al., 1999). Against this backdrop, the

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current study explores the potential association between psychopathic personality traits and speaking multiple languages.

1.1. Psychopathy and psychopathic personality traits

Psychopathy is a personality disorder that has been consistently associated with antisocial behavior and criminal involvement (DeLisi, 2009; Hare, 1993). Psychopathy is characterized by an array of affective, interpersonal, and behavioral attributes. Generally, psychopaths are described as manipulative, callous, exhibiting superficial charm, impulsive, and lacking in remorse (Hare, 1996). The affective attributes of the disorder relating to lack of empathy, callousness, and lack of guilt are thought to be the core features of psychopathy (Blair et al., 2006; Hare, 2006).

Given these characteristics, it is not surprising that psychopathy and psychopathic personality traits have been associated with an array of negative life outcomes. Psychopathy, for example, has been linked with persistent criminal behavior and involvement with the criminal justice system. Psychopathic personality traits have also been linked with negative health outcomes (Beaver et al., 2014), high rates of drug and alcohol abuse (Smith and Newman, 1990; Walsh, Allen, and Kosson, 2007), reduced educational attainment (Harpur, Hare, and Hakstian, 1989), lower socioeconomic status (Harpur et al., 1989; Ullrich, Farrington, and Coid, 2008), and premature mortality (Black, Baumgard, Bell, and Kao, 1996). Furthermore, psychopaths have been found to be highly resistant to change and are not likely to benefit from treatment programs (Hare, 1996). As a whole, previous research on psychopathy portrays a life trajectory for individuals with high levels of psychopathic personality traits that has dire personal and societal consequences.

1.2. Psychopathy, language skills, and cognitive abilities

In light of the serious societal consequences posed by psychopaths, there has been significant interest in identifying some of the developmental outcomes of psychopaths and of individuals who score high on measures of psychopathic personality traits. Findings from these studies have revealed that psychopathy is associated with deficiencies in language skills and cognitive deficits. For example, research on the reading abilities of psychopaths suggests that psychopathic personality traits are inversely related to reading comprehension performance in adolescents (Vaughn et al., 2011). Research examining the verbal skills of psychopaths reveals that psychopaths have more disorganized speech patterns (Brinkley et al., 1999a; Williamson, 1991) and tend to include more disfluencies (e.g., 'ums,' 'uhs') when speaking (Hancock, Woodworth, and Porter, 2011) than nonpsychopaths. To illustrate, the speech of psychopaths is characterized by less cohesive ties (Brinkley, Newman, Harpur, and Johnson, 1999b; Williamson, 1991), and more contradictory statements (Hare, 1993) than the speech of non-psychopaths. These findings indicate that psychopaths tend to resolve fewer plot points when describing stories and they do not adequately tie the elements of their speech together (Brinkley et al., 1999a; Brinkley et al., 1999b). Consequently, the speech of psychopaths may appear incoherent, poorly integrated, and may leave listeners confused. In line with poorly organized speech patterns, increased use of disfluencies by psychopaths when speaking may indicate that psychopaths have greater difficulty producing speech than nonpsychopaths. Taken together, findings from these studies reveal that psychopaths appear to have difficulties with language production along with language processing (Brinkley et al., 1999b).

Empirical research on the cognitive abilities of psychopaths reveals that the poorly organized and incoherent speech of psychopaths may be explained by cognitive deficits related to executive functions (Brinkley et al., 1999a). Specifically, psychopathy has been linked with dysfunctions in attentional processing indicating that psychopaths have a limited ability to switch their attention to relevant peripheral information when they are already engaged in a task (Baskin-Sommers et al., 2012). In line with these results, research has suggested that psychopaths have poorly regulated behavior due to deficiencies in the ability to adequately allocate their attention to peripheral information and contextual cues while they are engaged in goal-direct activities (Newman, 1998; Patterson and Newman, 1993). These findings suggest that psychopaths may have poorly organized speech patterns because they are not able to utilize contextual information (e.g., the reactions of others) when producing speech.

Psychopathy has also been found to be associated with cognitive impairments related to the processing of affective, emotional, and abstract language (Hiatt and Newman, 2006; Hervé, Hayes, and Harem, 2003; Kiehl et al., 1999; Williamson, Harpur, and Hare, 1991). To illustrate, psychopaths have been found to have difficulty assessing the emotional valence of metaphors despite being able to understand their literal meaning (Hervé et al., 2003). These findings demonstrate that psychopaths have difficulty processing the affective aspects of language and information even when they can accurately process the literal meaning of communications. Psychopaths also appear to have more difficulty identifying abstract words than nonpsychopaths, indicating that they may have greater difficulties in processing abstract language (Kiehl et al., 2001). Psychopaths' language deficiencies may therefore indicate that psychopaths suffer a form of cognitive defect that inhibits their ability to relate language to the world around them (Gillstrom and Hare, 1988).

The connection between psychopathy and language skills dovetails with a body of research that links deficiencies in language skills with antisocial and aggressive behavior (Brownlie et al., 2004; Davis, Sanger, and Morris-Friehe, 1991; Stattin and Klackenberg-Larsson, 1993). These results are also consistent with research linking language skills exhibited early in life with empathy and concern for others at later stages in the life-course (Rhee et al., 2013). The relationship between language skills and empathy is thought to be the result of the ability to recognize emotions in others and theory of mind (Dyck and Denver, 2003; Milligan, Astington, and Dack, 2007). Theory of mind is particularly relevant to discourse on antisocial behavior as it entails the ability of an individual to represent the mental states of others. Importantly, research indicates that delays in language acquisition (e.g., deafness) are associated with deficits in theory of mind (Dyck and Denver, 2003), and, in turn, there is some evidence to indicate that psychopaths may have impairments in theory of mind (Ali and Chamorro-Premuzic, 2010). Findings regarding the relationship between language skills, empathy, and theory of mind, raise the possibility that the affective deficits (e.g., callousness, lack of empathy) present in psychopathy may be the result of deficiencies in language processing.

1.3. The benefits of speaking multiple languages

Given that language skills have been associated with psychopathy, it is possible that proficiency in multiple languages may also be associated with features related to psychopathic traits. For example, there is some evidence to indicate that frequent use of multiple languages is positively associated with cognitive empathy (Dewaele and Wei, 2012). Evidence from a similar line of research reveals that bilingualism may also be associated with developing theory of mind (Goetz, 2003). Research findings suggesting an association between empathy, theory of mind, and speaking multiple languages indicate that language skills and proficiency in multiple languages may act as a protective factor against developing some of the affective deficits associated with psychopathy.

There is a growing body of literature suggesting that speaking multiple languages confers a "bilingual advantage" that entails improvements in cognitive functions including inhibitory control, attentional control, task switching, and working memory (Adesope et al., 2010; Bialystok, Craik, Green, and Gollan, 2009; Bialystok, Craik, Klein, and Viswanathan, 2004; Bialystok and Martin, 2004). Bilinguals, for example, tend to have increased scores on executive controls (Bialystok and