Mindreading in the dark: Dark personality features and theory of mind

Jennifer Vonk [a,*], Virgil Zeigler-Hill [a], Demitrus Ewing [a], Sterett Mercer [b], Amy E. Noser [c]

[a] Oakland University, United States
[b] University of British Columbia, Canada
[c] University of Kansas, United States

ABSTRACT

Theory of mind may be associated with "dark" personality features because these features are defined in part by lack of concern for the feelings of others. Participants completed measures of dark personality features as well as various indicators of theory of mind (ToM). The most consistent negative associations with ToM emerged for primary and secondary psychopathy. In contrast, individuals with high levels of grandiose narcissism were relatively skilled at emotion management and more advanced ToM. These findings suggest that individuals with some dark personality features may misread rather than disregard the feelings and intentions of others.

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1. Introduction

Dark personality features refer to socially aversive aspects of personality that are often linked with antagonistic behaviors and callousness (e.g., Paulhus & Williams, 2002). Despite several recent studies investigating the connections between these features and the ability to understand the mental experiences of others, the social cognitive capabilities of individuals with dark personality features remain unclear. Researchers have focused most extensively on the distinction between cognitive and affective empathy, with cognitive empathy referring to the capacity to discern emotional states in others, and affective empathy referring to the capacity to feel what another is feeling through emotional contagion (e.g., Czarna, Wróbel, Dufner, & Zeigler-Hill, 2015; Jonason, Lyons, Bethell, & Ross, 2013). Theory of mind (ToM) is closely aligned with cognitive empathy but is defined more broadly as the capacity to represent and reason about various mental states in others — including knowledge states, motivations, intentions, and beliefs. Although individuals possessing dark personality features show relatively little concern for the welfare of others, there is surprisingly little data to support the idea that such lack of concern stems from an inability to understand others' feelings. For example, individuals with dark personality features have the capacity to reason about emotions but fail to utilize this ability to invoke empathic responses (Ritter et al., 2011; Wai & Tiliopoulos, 2012). To examine the connections between dark

personality traits and several aspects of ToM, we included both traditional measures of emotion reading and emotional intelligence, which incorporate emotion understanding and management, as well as ToM tasks that assessed the attribution of intentions and second-order ToM (i.e., the ability to understand that someone else has thoughts about someone else's thoughts). This allowed us to identify more specific social cognitive deficits in individuals with varying levels of dark personality features.

We also included assessment of a broad array of dark personality features in the present study, such as the Dark Triad (i.e., Machiavellianism, grandiose narcissism, primary psychopathy; Paulhus & Williams, 2002), and the 'Vulnerable Dark Triad' (i.e., vulnerable narcissism, secondary psychopathy, and borderline personality features; Miller et al., 2010). Although previous studies concerning the darker aspects of personality have often been limited to the Dark Triad, we also included the Vulnerable Dark Triad because difficulties assessing the mental states of others may contribute to the emotional reactivity that characterizes individuals who possess these traits.

Dark personality features appear to be linked by shared aspects such as empathy deficits (Paulhus & Williams, 2002) and a willingness to exploit others (e.g., Jonason & Webster, 2012). Individuals with relatively poor ToM skills may be more likely to misread or dismiss the feelings and intentions of others, which may contribute to their likelihood of engaging in aversive behaviors. This possibility is consistent with the results of the growing body of studies suggesting that some dark personality features are associated with impoverished ToM skills (e.g., Ali & Chamorro-Premuzic, 2010; Dziobek et al., 2011; Lyons, Caldwell, & Shultz, 2010; Preibler, Dziobek, Ritter, Heekeren, & Roepke, 2010; van Zwieten et al., 2013; Vonk, Zeigler-Hill, Mayhew, & Mercer, 2013).

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* Corresponding author at: Department of Psychology, Oakland University, 211 Pryale Hall, Rochester, MI 48309, United States.
   E-mail address: vonk@oakland.edu (J. Vonk).

However, dark personality features are not always associated with impaired ToM. For example, both null and positive associations with ToM have emerged for certain aspects of psychopathy (Dolan & Fullam, 2004; Richell et al., 2003), Machiavellianism (Barlow, Qualter, & Stylianou, 2010; Esperger & Bereczkei, 2012; Wastell & Booth, 2003), narcissism (Stellwagen & Kerig, 2013), and borderline personality features (Arntz, Bernstein, Oorschot, & Schobre, 2009; Franzen et al., 2011; Schilling et al., 2012). These mixed results may be due to the different ways in which both dark personality features and ToM have been conceptualized. ToM allows perceivers to predict subsequent behavior of others based on their internal states, which may be useful when manipulating, deceiving, and taking advantage of others (Esperger & Bereczkei, 2012). Nagler, Reiter, Furtner, and Rauthmann (2014) have recently provided evidence that individuals high in Dark Triad personality traits use emotional intelligence to manipulate others. Thus, it would be useful to include measures of knowledge and intention attribution, as well as emotional intelligence, which encompasses the ability to both understand and manage one's own emotions in contexts that relate to the emotions and intentions of others. Individuals with high levels of narcissism (Ames & Kammrath, 2004), Machiavellianism (Giammarco, Atkinson, Baughman, Veselka, & Vernon, 2013; Klaver, Lee, Spidel, & Hart, 2009), and borderline traits (Schilling et al., 2012) have reported a higher degree of confidence in their responses to ToM tasks than other individuals despite the fact that their actual performance was not superior. Such findings point to the need to assess ToM using actual tests of the ability to interpret emotions and intentions of others rather than focusing on self-perceptions.

Most previous studies with adults have used only a single indicator of ToM that captured only low-level ToM abilities (e.g., the Reading the Mind in the Eyes Test [RMET]; Ali & Chamorro-Premuzic, 2010; van Zwieten et al., 2013; Vonk et al., 2013). Preibler et al. (2010) found deficits in ToM in patients with borderline personality disorder using a more sensitive and ecologically valid task (Movie for the Assessment of Social Cognition, Dziobek et al., 2006) even though they did not differ from normal control participants on the RMET. These results emphasize the need to employ more advanced measures of ToM because it is important to determine whether individuals with dark personality features are unable to take the feelings and perspectives of others into account or are simply unwilling to do so (e.g., Ali & Chamorro-Premuzic, 2010). We used various ToM tasks in order to gain a more nuanced understanding of specific ToM deficits for individuals with dark personality features.

In addition to including broader measures of dark personality that captured vulnerability as well as antagonistic features, we examined the various facets of narcissism and psychopathy because these facets may differ in their associations with ToM (Jonason & Krause, 2013; Sharp & Vanwoorden, 2014; Vonk et al., 2013). Previous studies concerning the Dark Triad and ToM have often treated narcissism and psychopathy as unidimensional constructs even though they are most often characterized as being multidimensional. For example, it has been suggested that there are two forms of psychopathy: Primary psychopathy is considered to reflect characteristics such as selfishness, callousness, superficial charm, chronic lying, and lack of remorse, whereas secondary psychopathy is characterized by an antisocial lifestyle, which includes susceptibility to boredom, impulsivity, early behavior problems, and tendencies toward delinquency (Hare, 1991). We predicted that borderline personality features, secondary psychopathy, and vulnerable narcissism would be associated with impairments in ToM and emotional intelligence, whereas grandiose narcissism, primary psychopathy, and Machiavellianism would be associated with higher levels of ToM and emotional intelligence. These predictions are consistent with the abilities of individuals with these personality features to manipulate others and these associations have been supported by previous findings (e.g., Barlow et al., 2010; Dolan & Fullam, 2004; Esperger & Bereczkei, 2012; Richell et al., 2003; Stellwagen & Kerig, 2013; Wastell & Booth, 2003).

2. Method

2.1. Participants and procedure

Participants were 929 undergraduates (764 women) at a university in the Midwestern region of the United States who participated in return for course credit. We omitted data from an additional 27 participants who contributed nonsensical responses to open-ended questions. Participants completed measures of dark personality features and ToM via a secure website. The mean age of the participants was 20.4 years ($SD = 4.57$) and their racial/ethnic composition was 76% White, 9% Black, 3% Hispanic, 4% Asian, and 8% other.

2.2. Measures

2.2.1. Mach-IV

Machiavellianism was measured with the Mach-IV (Christie & Geis, 1970). The Mach-IV is a 20-item instrument that was developed to measure manipulative and deceitful tendencies as well as cynical and immoral beliefs (e.g., "The best way to handle people is to tell them what they want to hear"). Participants were asked to rate their level of agreement with the items of the Mach-IV using scales that ranged from 1 (strongly disagree) to 5 (strongly agree). The Mach-IV has been found to possess adequate psychometric properties and it is the most widely used measure of Machiavellianism (McHoskey, Worzel, & Szyarto, 1998), ordinal $\alpha = .75$.

2.2.2. Pathological narcissism inventory

Narcissism was assessed with the Pathological Narcissism Inventory (PNI; Pincus et al., 2009). The PNI is a 52-item instrument that assesses seven dimensions of pathological narcissism spanning problems with narcissistic grandiosity (i.e., exploitativeness, grandiose fantasy, self-sacrificing, self-enhancement; e.g., "I find it easy to manipulate people" [ordinal $\alpha = .90$]) and narcissistic vulnerability (i.e., entitlement rage, contingent self-esteem, hiding the self, and devaluing; e.g., "My self-esteem fluctuates a lot" [ordinal $\alpha = .96$]). Responses were provided on scales that ranged from 0 (not at all like me) to 5 (very much like me). The PNI has been found to possess adequate psychometric properties (Pincus et al., 2009).

2.2.3. Levenson self-report psychopathy scale

Psychopathy was measured using the Levenson Self-Report Psychopathy Scale (LSRPS; Levenson, Kiehl, & Fitzpatrick, 1995), which was designed specifically to measure psychopathy in the general population and is based on the two-factor interpretation of Hare's revised Psychopathy Checklist (PCL-R; Hare, 1991). The LSRPS consists of 26 items and responses were provided on scales that ranged from 1 (disagree strongly) to 4 (agree strongly). This version of the instrument consists of two subscales: Primary Psychopathy (16 items; e.g., "For me, what's right is whatever I can get away with" [ordinal $\alpha = .84$]) and Secondary Psychopathy (10 items; e.g., "I find myself in the same kinds of trouble, time after time" [ordinal $\alpha = .78$]).

2.2.4. Borderline personality features

The Borderline Features Scale of the Personality Assessment Inventory (Morey, 1991) is a 24-item scale that captures four commonly agreed upon components of borderline personality functioning: affective instability, identity problems, negative relationships, and self-harm. Responses were made on scales that ranged from 0 (false, not at all true) to 3 (very true). This instrument has been shown to possess strong psychometric properties (Morey, 1991; Morey & Glutting, 1994), ordinal $\alpha = .89$.

2.2.5. Theory of mind measures

Reading the Mind in the Eyes Test. The RMET (Baron-Cohen, Wheelwright, & Hill, 2001) was used to assess the ability of participants