Self-Reported Creative Ability and the Dark Triad Traits: An Exploratory Study

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Attention has recently been drawn to the dark side of creativity. We provided an exploratory study (N = 226) of how the Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism) correlated with two measures of creativity (i.e., Kaufman Domains of Creativity Scale and Creative Achievement Questionnaire). Those high in narcissism reported being more creative than most people, an association that may reflect narcissistic self-delusions of popularity and charm. We found self-reported success in humor was correlated with narcissism and psychopathy scores. Those high in psychopathy also reported better mechanical and lower scholarly skills than most, which may relate to their vocational interest in practical/realistic work. Machiavellianism accounted for little variance in creativity. Individual differences in the Dark Triad traits mediated sex differences in various aspects of creativity, suggesting sex differences in some aspects of creativity may be partially confounded by sex differences in the Dark Triad traits

Keywords: Dark Triad, personality, creativity, sex differences

Creativity is a well-studied topic (e.g., Feist, 1993, 1998; Gelade, 2002; McCrae, 1987). It is considered important in educational (Ai, 1999) and professional (Egan, 2005) settings and may be important in mate choice as well (Li et al., 2009). Creative people are thought to embody more cognitive flexibility (Mayer, 1989; Runco, 1994), which will allow them to better solve problems as well as perform in various domains such as art, music, and dance (Carson, Peterson, & Higgins, 2005; Kaufman, 2012). However, this research has a rather one-sided view of creativity. It fails to consider the possibility that creative skills and abilities could be used for "darker" ends, and when it has, researchers framed such creativity in relation to unethical behavior (Gino & Ariely, 2012) and deceptiveness (Walczyk, Runco, Tripp, & Smith, 2008). For instance, lying and social manipulation may require cognitive flexibility to best avoid detection and extract resources from others (Jonason & Webster, 2012).

Nevertheless, the dark side of creativity has received relatively less attention than the aforementioned more desirable side of creativity (Beaussart, Andrews, & Kaufman, 2013; Brower, 1999;

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Gino & Ariely, 2012; Steptoe, 1998). When researchers have examined it, they have focused more on the creative side of the equation (e.g., sense of humor; Veselka, Schermer, Martina, & Vernon, 2010) instead of trying to understand how "darker" aspects of personality might relate to measures of creativity. In this exploratory study, we examined how two measures of self-reported creativity are correlated with the Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism; Paulhus & Williams, 2002). That is, instead of trying to say something about the dark side of creativity per se, we examined how darker aspects of personality may relate to creativity.

Individual Differences in Creativity

For years, the personality psychology landscape has been dominated by the Big Five traits (i.e., extraversion, agreeableness, neuroticism, conscientiousness, and openness/intellect; Costa & McCrae, 1995). Although still important at understanding sweeping aspects of personality, the taxonomy may fall short in its ability to tap some of the "darker" and less socially desirable aspects of interindividual differences. One stream of research that has been quickly gaining momentum and addressing this theoretical and empirical gap is the work on the Dark Triad traits (Furnham, Richards, & Paulhus, 2013; Jonason, Webster, Schmitt, Li, & Crysel, 2012). The Dark Triad traits are characterized by vanity and self-centeredness (i.e., narcissism), manipulation and cynicism (i.e., Machiavellianism), and callous social attitudes and impulsivity (i.e., psychopathy). Although traditionally studied as pathologies and undesirable traits (Campbell & Miller, 2011; Kowalski,

2001), much of this emerging work tries to take a more fair and balanced approach to these traits by examining them in relation to aspects of personality that are not necessarily pathological or undesirable and does so in subclinical populations—one of which might be creativity.

The Dark Triad traits have been valuable in understanding various aspects of personality, social, and organizational psychology (for review, see Furnham, Richards, et al., 2013; Jonason, Webster, et al., 2012). The traits have been identified as embodying a "fast" life history strategy whereby individuals prioritize immediate outcomes (i.e., \$100 now) over delayed (i.e., \$1,000 in a year) ones (Jonason, Koenig, & Tost, 2010). This life history strategy (for review, see Jonason, Webster, et al., 2012) shows itself in various ways relevant to creativity. Psychopathy and narcissism display a nearly exclusive short-term mating style (Jonason, Li, Webster, & Schmitt, 2009; Jonason, Luévano, & Adams, 2012; Jonason, Valentine, Li, & Harbeson, 2011). Such a mating style might be consistent with stereotypical views of actors and musicians as engaging in transient and passion-filled love affairs that apparently do not last (e.g., Lord Byron). All three of the traits, but especially psychopathy, are related to limited empathy (Jonason, Lyons, Bethell, & Ross, 2013; Jonason & Krause, 2013) and schadenfreude (Kavanagh, James, Jonason, Chonody, & Scrutton, 2014). Narcissism is associated with verbal and retaliatory aggression, whereas psychopathy is associated with proactive aggression (Jonason & Webster, 2010; Jones & Paulhus, 2010). All of which may facilitate making jokes at other people's expense. Indeed, the cognitive empathy found in narcissism (Jonason & Krause, 2013) might facilitate feigned emotional expressions as well as more cognitively based forms of acting (e.g., Stanislavski, Neuroaesthetic). In a more general sense, the limited self-control or impulsivity (Jonason & Tost, 2010; Jones & Paulhus, 2011), disagreeableness (Jonason, Kaufman, Webster, & Geher, 2013), and dishonesty (Jonason & McCain, 2012) may facilitate various aspects of creativity such as a lifestyle that could be characterized as essential for the pursuit of one's artistic goals (e.g., selfishness, spontaneity). An ability to be creative in terms of telling jokes, generating music, and being comfortable in front of a crowd might be relevant in the mating context, especially for men (Li et al., 2009). The traits have proven useful in understanding various aspects of human life, such as racism (Jonason, 2015; Jones, 2013), workplace preferences and satisfaction (Jonason, Wee, & Li, 2015; Jonason, Wee, Li, & Jackson, 2014), sexual fantasies (Baughman, Jonason, Veselka, & Vernon, 2014), and humor styles (Veselka et al., 2010). In hopes of expanding the utility of the Dark Triad traits into new domains of inquiry, this study presents exploratory analyses of how the traits relate to self-reports of creativity.

Generally speaking, the relationship between personality and creativity has focused on socially desirable aspects of personality (e.g., the Big Five traits; Feist, 1993, 1998; Gelade, 2002; McCrae, 1987), thereby not revealing much about the dark side of creativity from the perspective of personality psychology. A number of lines of inquiry suggest the Dark Triad traits might be related to self-reports of creativity. First, as the Dark Triad traits are correlated with various aspects of the Big Five (Jonason, Li, & Teicher, 2010; Paulhus & Williams, 2002), which are themselves correlated with creativity (Gelade, 2002; McCrae, 1987), there may be some shared variance. Second, there is at least some evidence that

narcissism is correlated with domain-general creativity (Furnham, Hughes, & Marshall, 2013) and that the Dark Triad traits might relate to manifestations of creativity (Kapoor, 2015). Third, creativity might facilitate the protean and deceptive approach to social manipulation that characterizes the Dark Triad traits (Baughman, Jonason, Vernon, & Lyons, 2014; Jonason, Lyons, Baughman, & Vernon, 2014; Jonason, Slomski, & Partyka, 2012; Jonason & Webster, 2012; Walczyk et al., 2008). Fourth, people who are creative may be able to tell more convincing lies, engage in creative criminal behavior, have lower emotional intelligence (Beaussart et al., 2013; Feist, 1993), and have a nighttime chronotype (Giampietro & Cavallera, 2007), all of which are also associated with the Dark Triad traits (Jonason, Jones, & Lyons, 2013; Jonason, Kaufman, et al., 2013; Raskin & Terry, 1988). Taken together, evidence suggests there may be conceptual and empirical overlap in the variance between creativity and the Dark Triad traits.

We have one overarching question: how do the Dark Triad traits relate to self-report measures of creative activity? We present some exploratory research questions to account for the potential relationships between the Dark Triad traits and creativity. We expect no relationships between Machiavellianism and creative achievement and ability because their pragmatic approach to life (Jonason & Webster, 2012) and work (Jonason, Wee, et al., 2014) may mean they see creative endeavors as frivolous. We do, however, have some expectations that narcissism and psychopathy will be related to creative achievement and ability.

First, we inquire into the nature of the relationship between narcissism and creativity. Those high on narcissism tend to rate themselves as slightly better than others would (John & Robins, 1994). This may translate into feeling they are more creative than most people. Such a positive self-image may be part of the grandiose style of defensive self-enhancement that characterizes narcissism (Raskin, Novacek, & Hogan, 1991). This may manifest itself in domain-general and domain-specific manifestations of creativity. We expect narcissism to be correlated with various aspects of self-reported creativity (Research Question 1 [RQ1]).

Second, we inquire into the way psychopathy is related to self-reported creativity. Unlike narcissism, those high on psychopathy may be apathetic to the concerns of others (Jonason, Jones, et al., 2013; Jonason & Krause, 2013) and may, therefore, not evidence a positive manifold of correlations. Instead, psychopathy may be associated with dispositions that make certain forms of creativity more or less likely than others. For instance, those high in psychopathy may have dysfunctional impulsivity (Jones & Paulhus, 2011), which may inhibit success in scholarly ventures. Alternatively, those high in psychopathy have reported interest in realistic or hands-on vocations (Jonason, Wee, et al., 2014), which may translate into success in mechanical creative endeavors. We expect psychopathy to be correlated with creativity in mechanical fields (Research Question 2 [RQ2]).

As a supplementary analysis, we replicate and extend what is known about sex differences in creativity and the Dark Triad traits (Hypothesis 1 [H1]). Men tend to score higher than women do on the Dark Triad traits in international samples of college students (Jonason, Li, & Czarna, 2013; Jonason et al., 2009) and community members (Jonason, Wee, et al., 2014). Evidence for sex differences in creativity is, however, more allusive, but that may be a methodological artifact. Research on sex differences in creativity

often operationalizes creativity in terms of mental flexibility, fluency, and originality (Ai, 1999; Alpaugh & Birren, 1975; Baer & Kaufman, 2008; Kogan, 1974; Matud, Rodríguez, & Grande, 2007). In contrast, measures of creative achievement (something closer to what we have measured in this study) appear to reveal some sex differences (Abra & Valentine-French, 1991). We expect men to generally report more creative achievement than women do (Hypothesis 2 [H2]). However, we expect this to be confounded with their personality. Men, as a function of their greater narcissism (Goncalo, Flynn, & Kim, 2010), may report more creative achievement than women do. Stated another way, as women may downplay their abilities more than men do, they may report less success in creative achievements. Therefore, we test confounding mediation models¹ that use individual differences in the Dark Triad traits as confounding factors that account for part of the sex differences in creative achievements (Research Question 3 [RQ3]). This would mean that the reason men report more success in creative endeavors than women do is because men are more narcissistic than women are, not that they are necessarily more creative. Such a contention is consistent with prior work suggesting the sexes are rather equivalent in creativity (Kogan, 1974).

Method

Participants and Procedure

A total of 226 participants (35% male) aged 17–67 years (M=32.79, SD=11.17) were sampled through social media to take part in an online study. Participants primarily came from the United States (n=141; 43% male) and Australia (n=61; 30% male), with minorities coming from Ireland (n=16; 13% male) and the United Kingdom (n=7; 29% male). Participants were informed of the nature of the study, took a number of self-report measures, and were thanked and debriefed upon completion.

Measures

The Dark Triad traits were assessed using a 27-item measure (Jones & Paulhus, 2014). Participants indicated their level of agreement ($1 = strongly \ disagree \ to \ 5 = agree \ strongly$) to items such as, "It's not wise to tell your secrets" (i.e., Machiavellianism), "People see me as a natural leader" (i.e., narcissism), and "I like to get revenge on authority" (i.e., psychopathy). The relevant items were averaged to create indices of narcissism (Cronbach's $\alpha = .73$), Machiavellianism ($\alpha = .77$), and psychopathy ($\alpha = .79$). Machiavellianism correlated with psychopathy, r(224) = .52, p < .01, and narcissism, r(224) = .32, p < .01, whereas narcissism correlated with psychopathy, r(224) = .42, p < .01.

The Kaufman Domains of Creativity Scale (K-DOCS; Kaufman, 2012) is a 50-item questionnaire that assesses five different subtypes of creativity (see Table 1). Participants rated how creative they consider themselves compared to others of approximately their age and life experience ($1 = much \ less \ creative$ to $5 = much \ more \ creative$) in items meant to tap each domain of creativity. Items were averaged together to create indexes of each domain ($\alpha s = .80-.90$), and domain averages were further averaged to create a measure of domain-general ($\alpha = .69$) creativity.

The Creative Achievement Questionnaire (CAQ; Carson et al., 2005) is a self-report measure that focuses on creative accomplish-

ments. This section lists 13 areas of talents (see Table 1). In Part 1, participants were asked to indicate the areas in which they feel they have more talent, ability, or training than the average person (yes/no). In this case, the number of "yes" responses was summed to create a general measure of creative achievement. In Part 2, participants indicated whether they had received (yes/no) various forms of recognition for their creativity. We summed the number of "yes" responses within each domain to create measures of achievement within each domain. We did this as opposed to the weighting system because we felt a simple count was more defensible.

Results

We report descriptive statistics and sex differences/similarities in Table 1. Men scored higher in the Dark Triad traits (H1). Men (compared to women) described themselves as more creative across both measures and in domains like music, humor, inventions, and science (H2). Women reported more success in dancing than men did, an effect that might reflect sex differences in social acceptability in dance in our Western sample.

We report the zero-order correlations describing how the Dark Triad traits relate to domain-specific and domain-general aspects of creativity in Table 2. The most notable pattern is the general lack of convergence between the two measures of creativity. The CAQ operates on a count system, whereas the K-DOCS is measured with a Likert-style questionnaire. This methodological variance is puzzling and suggests a lack of convergent validity between the two measures. In references to the latter measure, narcissism was correlated with all aspects of the measure (RQ1), psychopathy was correlated with general creativity driven by performance and mechanical domains (RQ2), and Machiavellianism was weakly correlated with scholarly and performance domains of creativity. The only aspect of the CAQ that was correlated with the Dark Triad traits was the humor measure, suggesting those higher in psychopathy and narcissism were better at being funny than others. These correlations were similar across the sexes when alpha was adjusted to .003.

Next, we sought to test whether individual differences in the Dark Triad traits might account for sex differences in creativity (RQ3). For reportorial economy (and to minimize Type I error inflation), we focused our analyses on sex differences in creativity in general. We used bootstrapped mediation (1,000 samples) where participant's sex was entered in Step 1 and the three Dark Triad traits were entered in Step 2. Narcissism (B = 0.30, p < .01, 95% CI [.16, .43]) fully mediated sex differences in generalized creativity as measured with the K-DOCS, such that the standardized regression coefficient for participant's sex was significant at Step 1 ($\beta = .17$, p < .05) and not significant at Step 2 ($\beta = .11$, ns). The addition of the Dark Triad traits accounted for significant variance above participant's sex, $\Delta R^2 = .10$, F(3, 215) = 7.59, p < .01. These results generally replicated across domain-specific

¹ Such mediation analysis makes no claims about causal order. Instead, it is about portioning variance to better understand proximal and distal correlates of a dependent variable.

² Results were generally invariant across country of origin.

Table 1
Descriptive Statistics and Comparisons of Men and Women on the Dark Triad Traits and Measures of Creativity

	M(SD)				
	Overall	Women	Men	t	g
Dark Triad (SD3)					
Psychopathy	2.03 (0.62)	1.91 (0.60)	2.24 (0.61)	-3.98**	56
Machiavellianism	2.90 (0.58)	2.79 (0.59)	2.97 (0.55)	-2.17*	30
Narcissism	2.62 (0.60)	2.55 (0.57)	2.74 (0.64)	-2.29*	32
Creativity (K-DOCS)	, ,		` '		
General creative talent	2.98 (0.55)	2.91 (0.53)	3.11 (0.57)	-2.42*	36
Self/everyday	3.51 (0.56)	3.53 (0.54)	3.48 (0.58)	.71	.10
Scholarly	3.21 (0.77)	3.19 (0.77)	3.25 (0.78)	51	07
Performance	2.47 (0.90)	2.38 (0.88)	2.64 (0.93)	-2.01*	28
Mechanical/scientific	2.63 (0.92)	2.32 (0.80)	3.22 (0.86)	-7.62**	-1.09
Artistic	3.05 (0.87)	3.14 (0.88)	2.90 (0.86)	1.89	.27
Creativity (CAQ)	, ,		` '		
General creative talent	4.90 (4.13)	4.63 (3.96)	5.42 (4.40)	-1.38	18
Visual arts	.57 (1.10)	.65 (1.16)	.43 (0.96)	1.41	.20
Musical arts	.57 (1.03)	.46 (0.93)	.76 (1.17)	-2.09*	29
Dance	.23 (0.74)	.33 (0.88)	.06 (0.29)	2.57**	.36
Architectural design	.09 (0.38)	.08 (0.41)	.10 (0.30)	37	05
Creative writing	.85 (1.16)	.83 (1.16)	.87 (1.17)	27	04
Humor	.83 (0.80)	.71 (0.72)	1.04 (0.90)	-2.95**	41
Inventions	.41 (0.78)	.29 (0.62)	.63 (0.98)	-3.07**	423
Science	.37 (0.65)	.29 (0.54)	.53 (0.80)	-2.76**	39
Theater and film	.39 (0.80)	.37 (0.79)	.43 (0.84)	56	08
Culinary	.56 (0.66)	.59 (0.67)	.52 (0.64)	.72	.10

Note. g is Hedge's g for effect size where cell sizes are unequal. SD3 = Short Dark Triad; K-DOCS = Kaufman Domains of Creativity Scale; CAQ = Creative Achievement Questionnaire. * p < .05. ** p < .01.

forms of self-reported creativity. No mediation tests were called for when using the CAQ measure because the sex difference in general creative ability was washed out by domain-specific differences.

Table 2

Zero-Order Correlations Describing the Associations Between
the Dark Triad Traits and Measures of Creativity

	Narcissism	Psychopathy	Machiavellianism
K-DOCS			
General creative talent	.34**	.18*	.09
Self/everyday	.30**	08	06
Scholarly	.21**	.01	.14*
Performance	.33**	.32**	.17*
Mechanical/scientific	.20**	.21**	.09
Artistic	.21**	.05	05
CAQ			
General creative talent	.12	.07	02
Visual arts	08	09	05
Musical arts	.04	.13	.04
Dance	.10	.01	06
Architectural	01	03	09
Creative writing	.06	.02	00
Humor	.26**	.24**	.09
Inventions	.02	.06	09
Science inquiry	.01	02	.06
Theater and film	.11	02	06
Culinary	.07	.02	.00

Note. K-DOCS = Kaufman Domains of Creativity Scale; CAQ = Creative Achievement Questionnaire.

Discussion

The dark side of creativity is a less well-researched area than the positive role creativity plays in people's lives (Beaussart et al., 2013; Veselka et al., 2010). To provide new information to the former, we examined the role of the Dark Triad traits in selfreported creative achievement. Although prior research has examined narcissism (Furnham, Hughes, et al., 2013; Goncalo et al., 2010) or the socially undesirable aspects of creativity such as unethical behavior and lying (Gino & Ariely, 2012; Kapoor, 2015), we examined how individual differences in undesirable aspects of personality might be related to self-reported creative abilities and achievement. In short, the analyses revealed that those high in narcissism may feel they are more creative than most, consistent with work on their defensive self-enhancements (John & Robins, 1994; Raskin et al., 1991). We found that psychopathy was associated with success in creativity that resembles their vocational preferences (Jonason, Wee, et al., 2014). Machiavellianism revealed no meaningful associations with either measure of creativity. Although we replicated sex differences in the Dark Triad traits (Jonason, Li, et al., 2013) and revealed some sex differences in creative achievement, it appears that the latter may be a function of men's tendency to be narcissistic and overreport their successes at least when measured with the K-DOCS measure.

One unexpected finding is worthy of discussion. Both narcissism and psychopathy were correlated with self-reported success in humor. The obvious explanations for the narcissism association might be part of their self-enhancement style or as an expression of the social nature of the trait. Indeed, being funny might be a

p < .05. ** p < .01.

relatively easy, yet effective way of building social networks and the admiration of others. Learning to tell a few jokes can have important interpersonal implications. For instance, the ability to tell jokes might act as a way to test the waters with potential mates (Li et al., 2009), and given the short-term mating style associated with these traits (Jonason et al., 2009, 2011), this seems like a logical skill to have. Generally speaking, a person who tells jokes might be the center of attention, something those characterized by narcissism thrive on (Raskin & Terry, 1988). However, it is notable that psychopathy scores were equally correlated with success in this domain as well. There might be two potential explanations. First, it might relate to the verbal aggressiveness (Jonason & Webster, 2010) that is found in psychopathy. This would suggest that humor might come from a place of anger. However, because we did not measure anger in this study, it is hard to say. Second, the psychopathy link to humor might come from the interpersonal manipulation and callous affect aspects of psychopathy. Psychopaths may misinterpret their (aggressive) efforts at attracting friends and lovers as humorous, whereas those who they inflict their humor and social agenda on would disagree. In this case, their limited empathy (Jonason, Lyons, et al., 2014) may lead them to mistakenly interpret their behavior directed at others as funny, but it may only be funny in their heads.

Limitations, Future Directions, and Conclusions

Although we have provided new details about the Dark Triad traits and individual differences in creativity, the study was limited in a number of ways. First, the measures of creativity may be biased self-reports and overly focused on outcomes as opposed to cognitive processes. Future research should examine behavioral versions of creativity. That said, self-reported measures of creativity might be better than most people expect them to be (Silvia, Wigert, Reiter-Palmon, & Kaufman, 2012). Second, we focused on socially desirable forms of creativity. However, malevolent and negative creativity (Clark & James, 1999; Cropley, Kaufman, & Cropley, 2008) might provide better details about the Dark Triad traits given their dark side. Third, we relied on a reasonably new and brief measure of the Dark Triad traits, which does not allow us to examine lower-order factors within psychopathy and narcissism (Jonason, Jones, et al., 2013). Fourth, we did not attempt to control for the shared variance among the Dark Triad traits in our analyses. Although it is common to do this (e.g., Jonason & Tost, 2010), it lacks meaning because the unshared variance no longer reflects its original trait. Any such analyses are uninterpretable in that it is unclear what the remainder of each trait is after removing the shared variance given the large correlations among the traits (Jonason et al., 2009; Paulhus & Williams, 2002). In addition, the very premise of the Dark Triad traits is that they co-occur in individuals, making any attempt at understanding each trait in a vacuum limited in ecological validity. Future studies could isolate what content the Dark Triad traits share and do not share in a more detailed study, but this was beyond our scope here. Our goal here was answer one question: how do the Dark Triad traits relate to self-report measures of creative activity?

More work is warranted on the dark side of creativity. First, documenting the various forms of dark creativity might be a good start. Once such a taxonomy has been provided, more detailed analyses regarding the surrounding nomological network could be

conducted. Second, this study focused on creative achievement, but what might be interesting is to examine divergent thinking (Gino & Ariely, 2012), which may be accounted for by personality variation (Lee & Dow, 2011). Such thinking may help account for the way those high on the Dark Triad traits can manipulate others (Jonason, Slomski, et al., 2012; Jonason & Webster, 2012). Such work might inform some evolutionary arguments about how the Dark Triad traits could be adaptive if not also useful. Third, if we assume that personality traits are relatively constant, organizational and educational psychologists might seek to enhance the creativity of those characterized by these traits to reduce organizational costs and improve personal outcomes.

Although exploratory in nature, we have provided new details about both the Dark Triad traits and creativity. Traditionally, the Dark Triad traits have been kept separate from measures of socially desirable phenomena such as creativity (Campbell & Miller, 2011; Kowalski, 2001), but if we want to better understand the darker aspects of creativity, we may also need to understand the darker aspects of human nature. For surely, making jokes, singing songs, making art, and acting, like making aggression, war, and murder, are part of human nature.

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