



## Occupational niches and the Dark Triad traits



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### ABSTRACT

Our research focused on the vocational interests correlated with the Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism). By understanding how these traits facilitate the structuring of one's environment, we hypothesized that psychopaths will be more interested in realistic and practical careers, narcissists will be more interested in artistic, enterprising, and social careers, and Machiavellians will be more interested in avoiding careers that involve caring for others. In two cross-sectional studies ( $N = 424$ ;  $N = 274$ ), we provide general support for these hypotheses. Overall, our study showed those high on the Dark Triad traits may structure their social environment through idealized career preferences. We also show that sex differences in career preferences might be a function, in part of, individual differences in the Dark Triad traits.

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### 1. Introduction

In an ideal world, people would work in jobs that matched their preferences and personality traits. Alas, most people do not live in this utopia and must make adjustments to their job choice. Fortunately, the ivory towers of the academy provide the opportunity to examine this hypothetical world by understanding “ideal” preferences. While studying ideal preferences may have its limitations (Haefel & Howard, 2010), it can at least give us insight into the nature of various personality traits by examining them across contexts. In this study, we examine ideals for job-choice and how they relate to the “darker” aspects of personality.

In recent years, Industrial/Organizational (henceforth: I/O) psychologists have begun examining the “dark” side of personality (Brunell et al., 2008; Hogan & Hogan, 2001; Hogan & Kaiser, 2005; Jonason, Slomski, & Partyka, 2012; O'Boyle, Forsyth, Banks, & McDaniels, 2012; Robinson & O'Leary-Kelly, 1998; Spain, Harms, & Leberton, 2014). One grouping of “dark” traits is the Dark Triad (Jonason, Li, Webster, & Schmitt, 2009; Paulhus & Williams, 2002); characterized by entitlement, superiority, dominance (i.e., narcissism), glib social charm, manipulateness (i.e., Machiavellianism), callous social attitudes, impulsivity, and interpersonal

antagonism (i.e., psychopathy). In the workplace, narcissism has been correlated with unethical behavior in CEOs (Amernic & Craig, 2010) and a great need for power (Rosenthal & Pittinsky, 2006). Corporate psychopaths feel diminished levels of workplace responsibility and can adversely affect productivity (Boddy, 2010). Machiavellianism is associated with less organizational, supervisor, and team commitment (Zettler, Friedrich, & Hilbig, 2011), along with a tendency to be perceived as abusive by subordinates (Kiazad, Restubog, Zagenczyk, Kiewitz, & Tang, 2010) and to focus on maintaining power and using manipulative behaviors (Kessler et al., 2010). In contrast to prior work (Furnham, 2010; Henriques, 2011; Spain et al., 2014), we do not focus on the deleterious group-level outcomes associated with the Dark Triad traits; instead we focus on how the traits might be related to individuals' career preferences.

Personality traits of all kinds tend to operate as dispositional biases, drawing individuals toward certain kinds of situations or niches and away from others (Holland, 1997; Johnson, 1999; Judge, Higgins, Thoresen, & Barrick, 1999). Occupational niches are typically distinguished into six categories using the RIASEC model (Holland, 1997): physical, practical, and hands-on (e.g., electrician; *Realistic*), intellectual, introspective, and analytical (e.g., professor; *Investigative*), creative, intuitive, and expressive (e.g., fiction writer; *Artistic*), helpful, caring, and cooperative (e.g., nurse; *Social*), assertive, ambitious, and competitive (e.g., commodities trader; *Enterprising*), and organized, structured, and detail-oriented (e.g., accountant; *Conventional*).

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Unfortunately most work using personality traits in I/O psychology—including the examination of ideal occupational niches—has focused on “brighter” aspects of human nature (Barrick & Mount, 1991; Judge, Heller, & Mount, 2002; Judge et al., 1999; Oh & Berry, 2009). For instance, work focusing on the Big Five traits suggests extraversion was associated with interests in enterprising and social jobs, openness to experience with interests in artistic and investigative jobs, and agreeableness with interests in social jobs (Larson, Rottinghaus, & Borgen, 2002). Unlike the “brighter” aspects of personality, where positive individual outcomes often arise in tandem with positive organizational outcomes, the self-interested strategies used by individuals high on the Dark Triad traits may be especially effective for the individual *because* they are especially detrimental to other coworkers and the larger work environment (Clark, 1993; Clark, Lelchok, & Taylor, 2010). Indeed, those high on the Dark Triad traits do appear to have this orientation to their social lives (Jonason & Schmitt, 2012; Jonason, Valentine, Li, & Harbeson, 2011) and it, therefore, seems reasonable that this bias would extend to the workplace. Thus, we examine how each of the Dark Triad traits might uniquely relate to vocational interests.

In an overall sense, the Dark Triad traits are likely to provide biases towards job-choice through the manner by which each trait relates to people and power (Furnham, Hyde, & Trickey, 2014). In most jobs one must interact with other people and one must cope with being a subordinate—the standard state for most people in the workforce. For instance, narcissism appears to be the most social of the Dark Triad traits (Jonason & McCain, 2012) while maintaining a simultaneous desire to have status and be admired (Raskin & Terry, 1988). Narcissists might, therefore, be drawn to work in artistic jobs for admiration, social jobs to connect to others, and enterprising jobs to be socially dominant (*H1*). Conversely, Machiavellians may be highly concerned with social influence (Jonason & Webster, 2012) meaning they may lean towards jobs that afford them the potential for status like enterprising jobs and away from jobs that are unlikely to lead to status enhancements (*H2*). Third, in general, psychopathy may interfere with employability in as much as the trait is characterized by numerous features that will interfere with employability (e.g., limited self-control; Jonason & Tost, 2010) and general antisociality (e.g., limited empathy; Jonason & Krause, 2013). These tendencies come together to create aversions to work that involves helping others (e.g., teacher) and jobs that have strong oversight (e.g., nurse), leaving those high on psychopathy to prefer jobs that isolate them from others and rules like being a tradesperson doing realistic or practical work (*H3*).

In addition, we also examine whether apparent sex differences in career preferences might be, in part, a function of individual differences in the Dark Triad traits. For instance, women prefer and are more often employed in social (e.g., teaching) and artistic (e.g., interior designer) jobs than men are, whereas men tend to prefer realistic jobs more than women do (Su, Rounds, & Armstrong, 2009). These sex differences might be a function of individual differences in the Dark Triad traits because of their shared associations with limited empathy and alexithymia (Jonason & Krause, 2013). Further, as described above, the antisocial tendencies associated specifically with psychopathy likely orient such individuals towards short-term, hands-on work requiring less formal training. Therefore, we predict that low scores on the Dark Triad may facilitate the preference for artistic and social jobs in women (*H4*) whereas high scores on the Dark Triad may facilitate preferences for realistic jobs in men (*H5*).

We present two studies that examine the vocational interests associated with the Dark Triad and how sex differences in these interests might be accounted for by the cognitive biases associated with the Dark Triad traits. We provide detail about how each of the

Dark Triad traits might be associated with specific vocational interests and provide unique details about the dark side of human nature from the perspective of I/O psychology. In general, we provide tests of the hypothesis that personality traits are associated with biases that encourage individuals to structure their social world in accordance with their character.

## 2. Study 1

In this study, we try to understand the types of jobs that might appeal to those high on the Dark Triad. We also investigate how the Dark Triad mediates some sex differences in work-related interests. In so doing, we examine the manner by the Dark Triad traits are associated with preferences for a particular type of work environment.

### 2.1. Method

#### 2.1.1. Participants and procedure

The sample was composed of 424 American participants (57% male) from various jobs (e.g., telecom, education, healthcare, non-profit, automotive, construction), aged 18–72 years old ( $M = 32.27$ ,  $SD = 10.32$ ), who were paid US\$1 for their online completion of a series of measures on Mechanical Turk (see Casler, Bickel, & Hackett, 2013). The average participant was an employee (69%), working full-time (74%), and making \$25,000–\$49,999 (36%). The demographic factors predicted little variance in the Dark Triad and, therefore, results were collapsed across these distinctions.

#### 2.1.2. Measures

The Dark Triad traits were measured with the Short Dark Triad (Jones & Paulhus, 2014). The measure is composed of 27 items measuring Machiavellianism (e.g., It is not wise to tell your secrets; Cronbach's  $\alpha = .78$ ), psychopathy (e.g., Payback needs to be quick and nasty;  $\alpha = .80$ ), and narcissism (e.g., People see me as a natural leader;  $\alpha = .78$ ) where participants report their agreement with each statement (1 = *strongly disagree*; 5 = *strongly agree*).<sup>1</sup>

To assess vocational interests, we used the Interest Profiler-Short Form (Rounds, Smith, Hubert, Lewis, & Rivkin, 1999; Rounds, Su, Lewis, & Rivkin, 2010). It is composed of 60 items, 10 items each asking participants how much they like (1 = *strongly dislike*; 5 = *strongly like*) doing *realistic* (e.g., Build kitchen cabinets), *investigative* (e.g., Conduct chemical experiments.), *artistic* (e.g., Draw pictures), *social* (e.g., Teach children how to read.), *enterprising* (e.g., Manage a retail store), and *conventional* (e.g., Keep inventory records.) tasks. Each 10-item scale demonstrated good internal consistency ( $\alpha$ 's = .85–.91).<sup>2</sup>

### 2.2. Results and discussion

In Table 1 we report overall descriptive statistics and sex differences. Consistent with prior research, men scored higher than women did on all the Dark Triad traits. Men also scored higher than women did on realistic job-type interests. In contrast, women scored higher than men did on the artistic and social job-type interests. Table 2 (top panel) contains correlations and multiple regression weights (controlling for overlap between Dark Triad traits) in predicting career interests. Consistent with our hypotheses, narcissism was positively associated with interest in artistic, enterprising, and social jobs (*H1*), Machiavellianism was negatively

<sup>1</sup> Psychopathy was correlated with narcissism ( $r(422) = .32$ ,  $p < .01$ ) and Machiavellianism ( $r(422) = .47$ ,  $p < .01$ ) and narcissism was correlated with Machiavellianism ( $r(422) = .16$ ,  $p < .01$ ).

<sup>2</sup> Specific details are available upon request.

**Table 1**

Overall descriptive statistics and sex differences for the Dark Triad and vocational interests (Study 1).

	Mean (SD)			<i>t</i>	<i>d</i>
	Overall	Women	Men		
<i>Dark Triad</i>					
Psychopathy	2.05 (0.64)	1.84 (0.60)	2.21 (0.63)	−6.03**	−0.59
Machiavellianism	3.03 (0.57)	2.88 (0.56)	3.15 (0.55)	−4.94**	−0.48
Narcissism	2.70 (0.63)	2.60 (0.57)	2.77 (0.65)	−2.88**	−0.28
<i>Interests</i>					
Realistic	2.58 (0.77)	2.26 (0.71)	2.82 (0.72)	−7.98**	−0.78
Investigative	3.23 (0.88)	3.26 (0.91)	3.21 (0.85)	0.57	0.06
Artistic	3.15 (0.95)	3.29 (1.00)	3.04 (0.90)	2.66**	0.26
Social	3.00 (0.86)	3.30 (0.81)	2.78 (0.83)	6.32**	0.62
Enterprising	2.74 (0.77)	2.73 (0.84)	2.74 (0.72)	−0.25	−0.02
Conventional	2.91 (0.85)	2.93 (0.92)	2.90 (0.80)	0.44	0.05

Note: *d* is Cohen's *d* for effect size.\*  $p < .05$ .\*\*  $p < .01$  (two-tailed).**Table 2**Zero-order correlations (*r*) and standardized regression weights ( $\beta$ ) using the Dark Triad traits to predict vocational interests.

Interests	<i>r</i> ( $\beta$ )		
	Psychopathy	Machiavellianism	Narcissism
<i>Study 1</i> ( $N = 424$ )			
Realistic	.19** (.23**)	.05 (−.06)	.02 (−.05)
Investigative	−.08 (−.07)	−.07 (−.05)	.02 (.05)
Artistic	.02 (.04)	−.13* (−.17**)	.16** (.17**)
Social	−.09 (−.08)	−.21** (−.22**)	.24** (.30**)
Enterprising	.12* (−.01)	−.10* (.05)	.33** (.32**)
Conventional	−.04 (−.04)	.04 (.07)	−.11** (−.11**)
<i>Study 2</i> ( $N = 274$ )			
Caring	−.04 (.11)	−.15* (−.30**)	.04 (.16*)
Practical	.20** (.33**)	.03 (−.26*)	.09 (.11)
Cultured	.03 (−.21*)	.21** (.19)	.34** (.32**)

Note: Correlations did not differ as a function of participant's sex when  $p < .001$ .\*  $p < .05$ .\*\*  $p < .01$  (two-tailed).

associated with interest in social jobs ( $H2$ ), and psychopathy was positively correlated with interests in realistic jobs ( $H3$ ). Contrary to our hypothesis, Machiavellianism was uncorrelated to interests in enterprising jobs ( $H2$ ). In addition narcissism was associated with disinterest in conventional jobs.

Next we tested whether the Dark Triad traits mediated the relationship between sex differences and vocational interests ( $H4$  and  $H5$ ). In the first model, psychopathy significantly and partially mediated the sex difference in realistic interests ( $z = 3.33$ ,  $p < .01$ ;  $\Delta R^2 = .01$ ,  $F(1, 420) = 4.13$ ,  $p < .05$ ) such that the direct path ( $\beta = .36$ ,  $p < .01$ ) shrank when the indirect effect was added ( $\beta = .34$ ,  $p < .01$ ). In the second and third models, narcissism significantly and partially mediated the sex difference in artistic ( $z = 2.17$ ,  $p < .05$ ;  $\Delta R^2 = .03$ ,  $F(1, 420) = 14.02$ ,  $p < .01$ ) and social ( $z = 2.51$ ,  $p < .05$ ;  $\Delta R^2 = .08$ ,  $F(1, 420) = 40.24$ ,  $p < .01$ ) interests such that the direct paths ( $\beta_{artistic} = -.15$ ,  $p < .01$ ;  $\beta_{social} = -.33$ ,  $p < .01$ ) shrank when the indirect effects were added ( $\beta_{artistic} = -.12$ ,  $p < .01$ ;  $\beta_{social} = -.29$ ,  $p < .01$ ). In the fourth and fifth models, Machiavellianism significantly and partially mediated the sex difference in artistic ( $z = 2.29$ ,  $p < .05$ ;  $\Delta R^2 = .01$ ,  $F(1, 420) = 4.11$ ,  $p < .05$ ) and social ( $z = 3.33$ ,  $p < .01$ ;  $\Delta R^2 = .02$ ,  $F(1, 420) = 10.84$ ,  $p < .01$ ) interests such that the direct path ( $\beta_{artistic} = -.15$ ,  $p < .01$ ;  $\beta_{social} = -.29$ ,  $p < .01$ ) shrank when the indirect effect was added ( $\beta_{artistic} = -.13$ ,  $p < .01$ ;  $\beta_{social} = -.26$ ,  $p < .01$ ).

### 3. Study 2

Study 1 provided support for our hypotheses. However, it was limited in that it relied on just one measure of the Dark Triad traits and career interests and relied solely on a Mechanical Turk sample. Therefore, we attempted to replicate results from Study 1 using an independently and directly obtained sample of employees from various companies using an alternative measure of the Dark Triad and career interests.

#### 3.1. Method

##### 3.1.1. Participants and procedure

The sample was composed of 274 employees (57% female), aged 18–62 years old ( $M = 30.15$ ,  $SD = 8.69$ ), mostly from America (56%) who participated in a large scale online study on the relationship between personality and work-outcomes in exchange for US\$10. We only report the relevant portion of this dataset below. On average, participants had been at their company for 6.42 years ( $SD = 6.12$ ;  $Range = 1–48$ ), were junior management (46%), worked at a medium-sized company (36%), worked in the service arena (42%), and had an undergraduate education (45%).<sup>3</sup>

##### 3.1.2. Measures

We measured the Dark Triad traits with the Dirty Dozen (Jonason & Webster, 2010). Participants were asked how much they agreed (1 = *completely disagree*; 5 = *completely agree*) with statements such as: “I tend to want others to admire me” (i.e., narcissism), “I tend to lack remorse” (i.e., psychopathy), and “I have used deceit or lied to get my way” (i.e., Machiavellianism). Items were averaged together to create an index of narcissism (Cronbach's  $\alpha = .88$ ), Machiavellianism ( $\alpha = .85$ ), and psychopathy ( $\alpha = .86$ ).<sup>4</sup>

We measured three aspects of vocational interests deemed central to our hypotheses with the Vocational Interest Scale for Australia (Goddard, Patton, & Simons, 1999). The remaining five scales were omitted to minimize survey fatigue and to directly test our hypotheses only. We included eight items that measured vocational interests regarding *caring* (e.g., Treating people who are sick;  $\alpha = .91$ ), eight items that measured *practical* vocational interests (e.g., Servicing and repairing motor vehicles;  $\alpha = .95$ ), and six items assessing *cultured* vocational interests (e.g., Acting in a play or film;  $\alpha = .85$ ). These aspects correspond to social, realistic, and artistic interests, respectively. Participants were asked how much they liked (1 = *dislike extremely*; 7 = *like extremely*) each item.

#### 3.2. Results and discussion

As seen in Tables 2 (bottom panel) and 3, results replicated those in Study 1 despite the use of alternative measures of the Dark Triad and career interests. We replicated sex differences in the Dark Triad, but uniquely showed that in this sample the largest sex difference was in narcissism as opposed to psychopathy; a discrepancy that may be a function of the sample we collected. We also confirmed that men scored higher than women did in practical vocational interests.

Importantly, we showed that psychopathy was correlated with “hands-on” or practical work ( $H3$ ) whereas narcissism was corre-

<sup>3</sup> Given the imbalance in cell sizes and the nonresponsiveness of between 9% and 30% of the sample on these demographic questions, formal analyses were not conducted with these factors. However, exploratory analyses revealed few effects of these factors on Dark Triad scores.

<sup>4</sup> Psychopathy was correlated with Machiavellianism ( $r(271) = .69$ ,  $p < .01$ ) and narcissism ( $r(271) = .54$ ,  $p < .01$ ) which was correlated with Machiavellianism ( $r(271) = .35$ ,  $p < .01$ ).

lated with cultured jobs and caring jobs (*H1*). Machiavellianism was negatively associated with wanting a profession that involved caring for others (*H2*) and practical jobs (*H2*). These links with the Dark Triad replicate our results from Study 1.

And last, we found that sex differences in practical vocational interests may be partially mediated by psychopathy, such that the direct beta ( $\beta = .37, p < .01$ ) shrunk slightly ( $\beta = .33, p < .01$ ). However, the Sobel's test ( $z = 2.50, p < .05$ ) and  $\Delta R^2$  did not agree ( $\Delta R^2 = .01, F(1, 201) = 2.70, ns$ ). Therefore, we included all three of the Dark Triad traits in one analysis and then found significant partial mediation ( $\Delta R^2 = .04, F(3, 199) = 3.08, p < .05$ ); localized to narcissism ( $\beta = .27, p < .01; z = 2.53, p < .05$ ) and Machiavellianism ( $\beta = -.25, p < .05; z = -2.29, p < .05$ ) only. There might be something unique about this population given they are employed in jobs that are not characterized as a trade, thereby minimizing the role of psychopathy in accounting for sex differences and allowing the other traits to play a part (*H5*). With no other significant sex differences and corresponding links between the Dark Triad traits and career interests, no other tests for mediation were conducted.

#### 4. General discussion

Prior research has detailed how the Dark Triad traits might be associated with preferences for particular social environments in terms of mating (Jonason et al., 2011) and friendship (Jonason & Schmitt, 2012). While both of these contexts are interesting to evolutionary (Jonason et al., 2009) and social psychologists (Jones, 2013), there are other contexts in which people find themselves that might be interesting to personality and I/O psychologists. In two studies we examined how the Dark Triad traits might be associated with dispositional biases that then may lead to particular vocational interests. For the personality psychologist we have provided new detail about socioecological preferences associated with the Dark Triad traits in a new context. For the I/O psychologist we have provided detail as to ideal career preferences of those characterized by socially undesirable personality traits (Campbell & Miller, 2011; Kowalski, 2001).

There can be no doubt the Dark Triad traits are correlated with deleterious outcomes for the group (Brunell et al., 2008; O'Boyle et al., 2012; Spain et al., 2014) and as such, it is not surprising that employers would like to detect, remove, punish, and retrain employees with these characteristics. However, we would contend that by focusing on group-level outcomes and, in particular the averseness of these traits, one may miss important questions about individual motivations (Jonason, Wee, & Li, 2014). We suggest that each trait may have unique motivational patterns leading those high on psychopathy to prefer to work in jobs where they do not have to interact with others and have little supervision; those high

on narcissism to chose jobs that facilitate the social approval and admiration they hold so dear (Raskin & Terry, 1988); and those who are Machiavellian to avoid jobs that are unlikely to lead to status.

Unlike some recent work (Carter, Campbell, & Muncer, 2014) but consistent with other work (Jonason & Webster, 2010; Jonason et al., 2009), we found sex differences in the Dark Triad traits. Further, the Dark Triad traits might be associated with particular biases in men and women that lead to various vocational interests. It suggests that underneath sex differences in vocational interests (Goddard et al., 1999; Rounds et al., 2010), and perhaps actual job-choice, might be biases associated with personality traits like the Dark Triad. That is, in addition to potential institutional or societal differences that are associated with inequalities in the workplace, individuals might have motivations that are associated with sex-differentiation in the workplace.

#### 5. Limitations, future directions, and conclusions

This investigation had a number of limitations. First, as we used brief measures we cannot examine the lower-order factors of narcissism and psychopathy (Jonason, Jones, & Lyons, 2013). Second, we exclusively used self-report measures (but see, Haefel & Howard, 2010) of ideal preferences instead of examining the Dark Triad traits in groups of workers from various professions. Third, our studies focused on the "person" part of the person  $\times$  situation paradigm that dominates modern social-personality psychology. It is likely that the toxicity of the Dark Triad traits might be suppressed or exacerbated in certain work contexts. Fourth, the correlations were small—accounting for small amounts of variance—which might result from the fact that there are numerous factors that influence occupational interests (e.g., the prestige assigned by a given culture to various jobs). Nevertheless, we have provided unique insights into the work-related motivations correlated with the Dark Triad traits.

The current studies provide an initial investigation of the job interests and motivations of those high in the Dark Triad traits. We have conceptualized personality traits as creating biases in people that promote the structuring of their social environment including in their career interests. Instead of focusing on group-level outcomes (O'Boyle et al., 2012; Spain et al., 2014), we have examined how individual differences in the Dark Triad traits are associated with individual-level career interests. We contend that focusing on group-level outcomes when trying to understand individual differences might obscure important details about personality traits like the Dark Triad.

#### Authors' note

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**Table 3**

Overall descriptive statistics and sex differences for the Dark Triad and vocational interests (Study 2).

	Mean (SD)			<i>t</i>	<i>d</i>
	Overall	Women	Men		
<i>Dark Triad</i>					
Psychopathy	1.92 (0.96)	1.76 (0.84)	2.14 (1.07)	−2.92**	−0.40
Machiavellianism	2.37 (1.08)	2.22 (1.05)	2.56 (1.13)	−2.38*	−0.33
Narcissism	3.02 (1.13)	2.78 (1.05)	3.28 (1.15)	−3.33**	−0.45
<i>Interests</i>					
Caring	4.22 (1.47)	4.31 (1.46)	4.09 (1.49)	1.16	0.14
Practical	3.47 (1.66)	2.95 (1.58)	4.15 (1.45)	−6.38**	−0.79
Cultured	4.61 (1.43)	4.55 (1.49)	4.67 (1.36)	−0.62	−0.08

Note: *d* is Cohen's *d* for effect size.

\*  $p < .05$ .

\*\*  $p < .01$  (two-tailed).

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