



## Four shades of sexual fantasies linked to the Dark Triad



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### ABSTRACT

The present study explored the links between the Dark Triad traits (i.e., narcissism, Machiavellianism, and psychopathy) and sexual fantasies in a sample of Canadian undergraduates ( $N = 643$ ). Among the Dark Triad traits, psychopathy was the most strongly correlated with overall sex drive as well as fantasies containing exploratory, impersonal, and sadomasochistic themes. Further, individuals who scored high on narcissism reported engaging in intimate sexual fantasies more frequently. The Dark Triad, psychopathy in particular, facilitated overall sexual desire in men. Overall, these findings were consistent with the view that the Dark Triad facilitates an exploitative, short-term mating strategy. Implications are discussed in the context of an evolutionary framework.

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As evidenced by this special issue and some meta-science (Jonason, Webster, Schmitt, Li, & Crysel, 2012), the Dark Triad traits (i.e., psychopathy, Machiavellianism, and narcissism; Paulhus & Williams, 2002) are becoming an increasingly popular set of sub-clinical personality traits under investigation by social (Jones, 2013), personality (Lee & Ashton, 2005), and evolutionary psychologists (Jonason, Li, Webster, & Schmitt, 2009). These traits are 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). Combined, these traits have been linked to empathy deficits (Jonason & Krause, 2013), short-term mating (Jonason et al., 2009), and a selfish/agentive social style (Jonason & Webster, 2012). In this study, we examine the links between various sexual fantasies and the Dark Triad traits and how these traits might facilitate the engagement in different sexual fantasies in men and/or women.

Similar to research on the Dark Triad traits (Kowalski, 2001), studies on sexual fantasies tend to focus on individual differences in sexual pathologies (Williams, Cooper, Howell, Yuille, & Paulhus, 2009) among, for instance, sexual offenders (Baumgartner, Scalora, & Huss, 2002). However, a fundamental premise of modern psychology is that individual differences are best measured on a continuum. That is, it is inappropriate to treat those high or low on the Dark Triad and those who engage in different sexual fantasies as belonging to different categories. Therefore, instead of treating either as pathologies, we examine how a range of sexual

fantasies—or shades—relate to individual differences in the Dark Triad traits.

We investigate four types of sexual fantasies in relation to the Dark Triad (Wilson, 1978). Intimate fantasies are marked by a sense of attachment and familiarity; exploratory fantasies involve the commission of diverse acts; impersonal fantasies are characterized by emotional detachment and disinterest; and sadomasochistic fantasies involve inflicting or submitting to physical or emotional abuse. We make four predictions about the relationships between the Dark Triad and individual differences in sexual fantasies.

First, we predict psychopathy will exhibit the strongest correlation with overall sex drive. Evolutionary psychologists (e.g., Jonason, Koenig, & Tost, 2010; Jonason, Webster, Schmitt, Li, & Crysel, 2012) suggest the Dark Triad traits may be adaptive towards the engagement in a fast life history strategy that focuses on mating (e.g., Rushton, 1995; Wilson, 1975). There is evidence to suggest that those high on the Dark Triad, psychopathy in particular (Jonason et al., 2009), may be predisposed to lower their standards considerably for short-term mating. This being said, a high sex drive may be part of the motivational forces that encourage an individual to lower their standards when deciding with whom to engage in sexual activity. Indeed, psychopathy and unrestricted sociosexuality—the tendency to engage in uncommitted sexual relations—are positively correlated (Jonason et al., 2009; Reise & Wright, 1996).

Second, we predict that psychopathy will be correlated with a wider range of sexual fantasies in comparison to the other Dark Triad traits. The Dark Triad might facilitate an exploitive social (Jonason & Schmitt, 2012) and sexual strategy (Jonason & Kavanagh, 2010). In fact, when asked about their preferences for

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a variety of relationships, those high on psychopathy had a wider range of preferences than did those scoring highly on the other Dark Triad traits (Jonason, Luévano, & Adams, 2012). Psychopathy has also been linked to a range of deviant sexual fantasies, such as fetishism, sadism, and pedophilia (Williams et al., 2009). Because psychopathy reflects an inclination to seek stimulation and to take advantage of immediate opportunities to have sex (Jonason, Webster et al., 2012), we would expect those scoring highly on this trait to fantasize about a broader range of sexual themes relative to those scoring highly on the other Dark Triad constructs.

Third, we predict that narcissism will be primarily correlated with individual differences in intimate sexual fantasies. Intimate fantasies are on the “lighter” end of the spectrum of individual differences in sexual fantasies through markedly more emotional and less aggressive content than do impersonal and sadomasochistic fantasies, respectively (Wilson, 1978, 1997). Of the Dark Triad traits, narcissism is considered the least socially aversive and perceived as the “lightest” of the trio (Rauthmann, 2012), being related to sociability in a way the other traits are not (Jonason & McCain, 2012). Narcissists may seek social approval in ways the other traits do not. Narcissists may be unique in that they want to connect with others as long as it serves their ego needs (Bogart, Benotsch, & Pavlovic, 2004; Raskin & Terry, 1988). Therefore, it seems reasonable that narcissism would be correlated with individual differences in fantasies of this kind.

Lastly, we predict that Machiavellianism will exhibit minimal associations with specific sexual fantasy themes. This particular trait has shown no significant relations with a variety of deviant sexual fantasies including voyeurism, fetishism, and sadism (Williams et al., 2009) and no association with one’s tendency to fantasize (Watson, Biderman, & Sawrie, 1994), suggesting a disinterest in such behaviors. It therefore seems reasonable to predict limited links between Machiavellianism and different sexual fantasies in as much as sexual behavior is, in part, shaped by one’s sexual fantasies (Leitenberg & Henning, 1995). We also expect that Machiavellianism will be positively related to sex drive, given that previous research has found high scores on this trait to be associated with unrestricted sociosexuality, promiscuity, and infidelity (e.g., McDonald, Donnellan, & Navarrete, 2012; McHoskey, 2001).

In addition to the overall links between individual differences in the Dark Triad traits and sexual fantasies, there is reason to believe that sex differences in sexual fantasies will be facilitated (i.e., statistically mediated; Baron & Kenny, 1986) by individual differences in the Dark Triad. In Western and Eastern samples, men are better characterized by the Dark Triad traits than are women (Jonason, Li, & Czarna, 2013). In addition, men (compared to women) desire more sex partners (Schmitt, 2003), are more willing to have sex with strangers (Clark & Hatfield, 1989), have less restricted sociosexual orientation (Schmitt, 2005), and have a stronger sex drive as well as fantasies pertaining to exploratory and impersonal themes (Wilson, 1981). Assuming the Dark Triad traits are linked to sexual fantasies, the Dark Triad might mediate sex differences in these sexual fantasies. Arguably because being “bad” provides more benefits (e.g., mates, status, resources) and comes with fewer costs (e.g., damage to reputation, death of offspring, loss of social support) for men than it does for women (Figueredo et al., 2006), having personality traits like the Dark Triad and an accelerated mating strategy might be more adaptive for men than for women (Jonason et al., 2009; Jonason, Webster et al., 2012).

Although the links between sexual fantasies and personality have been studied (e.g., Baumgartner et al., 2002; Williams et al., 2009), the existing literature tends to view sexual fantasies as pathological or deviant, and has, therefore, been assessed extensively by those with clinical leanings. This approach ignores the possibility that there is a range of individual differences in sexual fantasies ranging from “normal” or “common” sexual fantasies to

“abnormal” or “deviant” ones. Moreover, what is “normal” or “abnormal” is notoriously hard to define given the ever-changing sexual norms (Petersen & Hyde, 2010). Therefore, instead of making any moralistic judgments, we define sexual fantasies as manifestations of individual sexual agendas and relate them to the Dark Triad—a set of personality traits that may characterize individual differences in the adoption of an exploitive, short-term mating strategy.

## 1. Method

### 1.1. Participants and procedure

A sample of 643 undergraduate students (29.5% male), aged 16–54 years ( $M = 18.56$ ,  $SD = 2.50$ ) at the University of Western Ontario participated in an online mass-testing session that took approximately one hour to complete. Upon completion, participants were thanked, debriefed, and awarded course credit for their contribution.

### 1.2. Materials

The Short-Dark Triad (Jones & Paulhus, 2014) is a concise measure of narcissism, Machiavellianism, and psychopathy. It contains 28 items asking participants to rate their agreement (1 = *Strongly Disagree*; 5 = *Strongly Agree*) with statements reflecting narcissism (e.g., “I have been compared to famous people.”), Machiavellianism (e.g., “Most people can be manipulated.”), and psychopathy (e.g., “I like to get revenge on authorities.”). Items were averaged to create indices of Machiavellianism ( $\alpha = .73$ ), narcissism ( $\alpha = .70$ ), and psychopathy ( $\alpha = .76$ ). Low-to-moderate correlations were found between the Dark Triad traits.<sup>1</sup>

Individual differences in sexual fantasies were measured with the Wilson Sex Fantasy Questionnaire (Wilson, 1978). This measure contains 40 items that assess how frequently (0 = *Never*; 5 = *Regularly*) individuals fantasize about a range of sexual acts from “normal” to “deviant”. The measure can be reduced into four themes of sexual fantasies: Intimate (e.g., kissing passionately, oral sex), Exploratory (e.g., mate swapping, promiscuity), Impersonal (e.g., sex with a stranger, fetishism), and Sadomasochistic (e.g., hurting someone, being forced to have sex). Items were averaged to create an index of Intimate ( $\alpha = .90$ ), Exploratory ( $\alpha = .76$ ), Impersonal ( $\alpha = .69$ ), and Sadomasochistic ( $\alpha = .86$ ) fantasies. In addition, when all 40 items are averaged, they can be treated as a measure of overall sex drive (Wilson, 1988). Therefore, we averaged all of the items to obtain an overall sex drive measure ( $\alpha = .92$ ).

## 2. Results

Descriptive statistics and sex differences for the Dark Triad traits and sexual fantasies are reported in Table 1. Consistent with previous research (Jonason et al., 2009), men scored significantly higher than did women on all facets of the Dark Triad. Men also reported significantly higher scores on Intimate, Exploratory and Interpersonal fantasy themes, as well as an overall sex drive in comparison to women. Given the unequal ratio of men to women in our sample, we report Hedge’s  $g$  for effect size instead of Cohen’s  $d$ , although the interpretation is the same for both.

Zero-order correlations between the Dark Triad and sexual fantasies are presented in Table 2. Consistent with our hypotheses, psychopathy was most strongly correlated with overall sex drive,

<sup>1</sup> Narcissism ( $r(641) = .20$ ,  $p < .01$ ) and Machiavellianism ( $r(641) = .45$ ,  $p < .01$ ), and narcissism was correlated with Machiavellianism ( $r(641) = .10$ ,  $p < .05$ ).

**Table 1**  
Descriptive statistics and sex differences for the Dark Triad and sexual fantasies.

	M (SD)			t	g
	Overall	Females	Males		
<i>Dark Triad</i>					
Machiavellianism	3.13 (0.54)	3.07 (0.53)	3.29 (0.55)	4.59**	0.41
Narcissism	3.01 (0.53)	2.97 (0.53)	3.14 (0.54)	3.68**	0.31
Psychopathy	2.14 (0.59)	2.09 (0.59)	2.25 (0.59)	3.32**	0.27
<i>Sexual fantasies</i>					
Intimate	2.64 (0.78)	2.56 (0.77)	2.79 (0.75)	3.43**	0.30
Exploratory	1.70 (0.62)	1.59 (0.38)	1.93 (0.43)	9.86**	0.86
Impersonal	1.41 (0.35)	1.33 (0.30)	1.59 (0.37)	9.37**	0.77
Sadomasochistic	1.37 (0.42)	1.38 (0.41)	1.34 (0.41)	0.42	0.10
Sex drive	1.78 (0.42)	1.70 (0.56)	1.88 (0.57)	5.66**	0.32

Note. *g* is Hedge's *g* for effect size.

\*  $p < .05$ .

\*\*  $p < .01$ .

followed by narcissism and Machiavellianism. Furthermore, psychopathy was positively associated with the four sexual fantasy themes, exhibiting the highest correlation with Impersonal fantasies. Interestingly, all three of the Dark Triad traits were linked to intimate fantasies, but this link appeared localized to narcissism. Lastly, scores on Machiavellianism were related to Intimate and Impersonal sexual fantasies, although the magnitude of these associations was small. All associations were invariant across sexes.

We also examined whether sex differences in sexual fantasies might be mediated by the Dark Triad traits. Given the shared variance among the Dark Triad traits, we included all three traits in hierarchical regressions. The Dark Triad traits partially mediated sex differences in overall sex drive ( $\Delta R^2 = .08$ ,  $F(4, 225) = 4.70$ ,  $p < .01$ ; Sobel's  $z = -2.28$ ,  $p < .05$ ), such that the direct beta was reduced ( $\beta = -.18$ ,  $p < .05$ ) when the indirect effect was added ( $\beta = -.13$ ,  $p < .05$ ). The Dark Triad also partially mediated sex differences in Impersonal sexual fantasies ( $\Delta R^2 = .12$ ,  $F(4, 225) = 7.99$ ,  $p < .001$ ; Sobel's  $z = -2.43$ ,  $p < .05$ ), such that the direct effect ( $\beta = -.27$ ,  $p < .001$ ) was reduced when the indirect effect was added ( $\beta = -.26$ ,  $p < .001$ ). Last, we found slight evidence of suppression in sex differences in Exploratory sexual fantasies, however Sobel's test ( $z = -1.83$ , *ns*) and  $\Delta R^2$  did not agree ( $\Delta R^2 = .09$ ,  $F(4, 225) = 5.57$ ,  $p < .001$ ). The direct effect ( $\beta = -.24$ ,  $p < .001$ ) increased when the Dark Triad traits were included ( $\beta = -.25$ ,  $p < .001$ ). These effects were primarily attributable to psychopathy, given that it contributed the most variance to Impersonal ( $\beta_{\text{Psychopathy}} = .17$ ,  $p < .001$ ;  $\beta_{\text{Machiavellianism}} = .12$ ,  $p < .05$ ;  $\beta_{\text{Narcissism}} = .10$ , *ns*) and Exploratory ( $\beta_{\text{Psychopathy}} = .14$ ,  $p < .05$ ;  $\beta_{\text{Machiavellianism}} = .04$ , *ns*;  $\beta_{\text{Narcissism}} = .14$ , *ns*) fantasies, as well as overall sex drive ( $\beta_{\text{Psychopathy}} = .19$ ,  $p < .01$ ;  $\beta_{\text{Machiavellianism}} = .11$ , *ns*;  $\beta_{\text{Narcissism}} = .18$ ,  $p < .01$ ). We also considered that moderation analyses might be a better test of our hypotheses, but when we ran these analyses they revealed no effects.

**Table 2**  
Zero-order correlations and standardized regression weights using the Dark Triad to predict sexual fantasies.

	<i>r</i> ( $\beta$ )		
	Machiavellianism	Narcissism	Psychopathy
<i>Sexual fantasies</i>			
Intimate	.13** (.05)	.25** (.17**)	.20* (.09)
Exploratory	.06 (–.04)	.19* (.10)	.26* (.14)
Impersonal	.19** (.04)	.20** (.08)	.41** (.20**)
Sadomasochistic	.06 (–.05)	.10* (.05)	.33** (.23**)
Sex drive	.13** (.01)	.23** (.14*)	.33* (.18*)

\*  $p < .05$ .

\*\*  $p < .01$ .

### 3. Discussion

Researchers have long been interested in the relationship between sexual fantasies and personality characteristics associated with fantasizers (Leiteinberg & Henning, 1995). However, there has been a tendency to focus on deviant sexual fantasies, which are generally studied in clinical contexts (Baumgartner et al., 2002; Wilson & Gosselin, 1980). Similarly, traditional work on the Dark Triad traits has focused on their maladaptive nature (Kowalski, 2001). In both cases, this may reveal biased assumptions made by researchers toward conflating what is good for society as good for the individual (Jonason, Webster, et al., 2012). Instead, we take an adaptationist approach that is concerned with fitness-relevant outcomes (e.g., number of sex partners) associated with personality traits in individuals themselves.

Consistent with our predictions, psychopathy was the most strongly correlated with overall sex drive, as well with a wider range of sexual fantasy themes than was the case with the other Dark Triad traits. In particular, those high on psychopathy fantasized about exploratory, impersonal, and sadomasochistic themes. Given the callous-unemotional and opportunistic nature of psychopathy (Hare, 2003) and its relation to sexual aggression (Kosson, Kelly, & White, 1997), it is not surprising that those high on psychopathy would fantasize about emotionally detached sexual encounters, as well as scenarios involving pain and suffering (Wilson, 1997). From an evolutionary perspective, those who score high on the Dark Triad, particularly psychopathy, engage in sexual fantasies that are reflective of an exploitative and self-serving mating strategy (Jonason et al., 2009).

As expected, narcissism was linked with intimate sexual fantasies, suggesting that narcissists fantasize about feeling special and desired by others. Narcissism is characterized by feelings of grandiosity and self-entitlement (Raskin & Terry, 1988), and therefore, narcissists emotionally connect with others in order to satisfy their ego needs, not for romantic fulfillment (Campbell & Foster, 2002; Foster, Shrirra, & Campbell, 2006). Narcissism was also related to sadomasochistic fantasies. While past research has shown a link between narcissism and sadomasochistic fantasies (Williams et al., 2009), we have shown this relationship might have been spuriously driven by shared variance with psychopathy. Moreover, this prior study expressly took a “deviance” model of the Dark Triad traits and sexual fantasies in hopes of identify “sexual offenders” from the fantasies people have. We find this perspective biased in that fantasies may be weak indicators of actual sexual crimes, just as attitudes are weak predictors of behaviors (Ajzen, 1985). For instance, men may desire significantly more sexual variety in their lifetime (and around the world) than do women (Schmitt, 2003), but men's sexual success is constrained by access to willing women; a relatively rare find (Jonason, 2007).

Consistent with previous research, we found that Machiavellianism was only weakly related to one's tendency to sexually fantasize (Watson et al., 1994; Williams et al., 2009) and overall sex drive (McDonald et al., 2012). It is important to address the point that although earlier research suggests a link between Machiavellianism and sexuality (McHoskey, 2001), this work did not include narcissism and psychopathy, which is an essential inclusion given the considerable overlap between these traits (McHoskey, Worzel, & Szyarto, 1998; Paulhus & Williams, 2002). It appears that links between Machiavellianism and various measures of mating psychology are small or non-existent when the other two traits are included (Jonason, Li, & Buss, 2010; Jonason, Luévano et al., 2012). Machiavellianism appears to be linked with mating in regards to love styles (Jonason & Kavanagh, 2010) and mate manipulation (Jonason & Li, 2013). It may be that these two contexts directly tap a longer-term aspect of individuals' psychology. Indeed, these latter studies may be more informative about long-term mating

psychology, whereas other studies focused on short-term mating psychology. Some of the aforementioned studies could be criticized as being overly reliant on the Dirty Dozen measure of the Dark Triad traits, which has high correlations between Machiavellianism and psychopathy, which could overtly restrict links with Machiavellianism. However, the present study and others (Jonason & Kavanagh, 2010; Jonason, Luévano et al., 2012) have used other measures, suggesting the manner by which Machiavellianism drops out when studying sexual contexts appears robust to criticisms of methodological artifacts.

Consistent with previous research on sexual fantasy (e.g., Wilson, 1981, 2010), men had a higher sex drive than did women, and they fantasized about intimate, impersonal and exploratory sexual themes more frequently. Thus, we investigated whether these sex differences were mediated by the Dark Triad traits. Sex differences in overall sex drive, as well as exploratory and impersonal sexual fantasies were partially mediated by the Dark Triad; however, these effects were primarily driven by psychopathy, the “darkest” of the three traits (Rauthmann, 2012). From an evolutionary perspective, the Dark Triad traits may be more adaptive in men than in women (Jonason et al., 2009), and men are more likely to benefit from an accelerated mating strategy (e.g., social status, mate acquisition, attainment of resources). Thus, it is not surprising that men are more inclined to fantasize about sexual encounters involving anonymous and multiple partners (Wilson, 1997). They get more benefits and pay fewer costs than do women for engaging sexual encounters and thus, may have psychosexual systems that serve those adaptive needs. For surely, the pursuit of the male sexual agenda vis-à-vis the Dark Triad is facilitated by increased sex drive and sexual rumination.

### 3.1. Limitations and conclusions

This study was subject to a number of methodological limitations. We relied on relatively brief measures of the Dark Triad and sexual fantasies. Given that the data were collected in a mass-testing session, it was necessary to be brief in order to avoid participant fatigue. As such, we were unable to examine the associations with the lower-order factors of narcissism and psychopathy (Jonason, Jones, & Lyons, 2013; Jonason, Lyons et al., 2013), which might have provided more details regarding the relations between the Dark Triad traits and the sexual fantasies. For instance, the Impersonal fantasies dimension might have been related to the exploitativeness facet of narcissism more so than to the other facets of the trait. Similarly, there may be many more shades of sexual fantasies than the four we have studied here and the measure we used may have artificially constrained the nuance we could derive in studying sexual fantasies. As such, future research may wish to use more detailed and alternative measures of both. For instance, the Short-Dark Triad is a rather new measure and has not been as well vetted as the even shorter Dirty Dozen (Jonason & Webster, 2010; Webster & Jonason, 2013) or the longer measures of the Dark Triad, such as the Narcissistic Personality Inventory (Raskin & Hall, 1979; Raskin & Terry, 1988). Despite the newness of the Short-Dark Triad, we have every confidence its links to sexual fantasies will be similar to results with the Dirty Dozen and the Narcissistic Personality Inventory.

As commonly reported in personality research with undergraduate students, females were overrepresented in the present study. In order to minimize the bias stemming from this sample, we reported an effect size that is sensitive to unequal sample sizes and reduces the violation of the homogeneity of variances assumption. Furthermore, future research might aim to replicate our findings in samples with a greater median age, given that older adults may experience a different range of sexual fantasies given more time for sexual exploration. For instance, more time with a given

partner might facilitate a greater exploration of one's sexual interests (Jonason, Li, & Richardson, 2010). However, it should be taken into account that the frequency of sexual fantasy declines throughout adulthood (Leitenberg & Henning, 1995). Related to the age of our sample, we sampled Canadian undergraduate students. A Western sample might have unique sexual fantasies as a function of social liberalism, the easy access to pornography, and other culturally specific factors. Future research could assess the universality of the manner by which the mating strategies embodied by the Dark Triad traits are facilitated by sexual fantasies and sex drive.

The findings of this study offer unique insight into the links between the Dark Triad traits and four shades of sexual fantasies by examining them in an evolutionary context. Contrary to the existing literature on sexual fantasies, we refrain from categorizing sexual fantasies as “normal” or “deviant” and adopt a neutral position that considers them to be a natural component of an individual's sexuality. We have demonstrated that the sexual strategies linked to the Dark Triad traits are evidenced in the sexual fantasies of individuals. We encourage future work to examine the degree to which these links are realized or idealized.

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