



Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

Mate-selection and the Dark Triad: Facilitating a short-term mating strategy and creating a volatile environment

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ARTICLE INFO

Article history:

Received 7 May 2011

Received in revised form 17 June 2011

Accepted 23 June 2011

Available online 22 July 2011

Keywords:

Dark Triad

Mate preferences

Budget-allocation

Personality

ABSTRACT

The current study ($N = 242$) seeks to establish the relationship between traits known collectively as the Dark Triad – narcissism, psychopathy, Machiavellianism – and mating standards and preferences. Using a budget-allocation task, we correlated scores on the Dark Triad traits with mate preferences for a long-term and short-term mate. Men scoring high on the Dark Triad may be more indiscriminate than most when selecting for short-term mates in order to widen their prospects. Furthermore, those high on the Dark Triad – psychopathy in particular – tend to select for mates based on self-interest, assortative mating, or a predilection for volatile environments. We assessed these correlations when controlling for the Big Five and the sex of the participant. We also tested for moderation by the sex of the participant and mating context. Ramifications and future directions are considered.

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1. Introduction

Recent work on the Dark Triad (Paulhus & Williams, 2002) has revealed that this constellation of three traits – narcissism, psychopathy, and Machiavellianism – linked by a core of disagreeableness (Jakobwitz & Egan, 2006; Paulhus & Williams, 2002), may not be as maladaptive as traditionally considered (Kowalski, 2001) and are even heritable (Vernon, Villani, Vickers, & Harris, 2008). The Dark Triad seems to constitute an impulsive, aggressive, and opportunistic social style that may facilitate an exploitative – yet effective – short-term mating strategy (Jonason, Li, Webster, & Schmitt, 2009; Jones & Paulhus, 2010). Indeed, being high on the Dark Triad traits is, especially for men, associated with being sociosexually unrestricted, having had more sex partners, currently seeking short-term mates (Foster, Shrira, & Campbell, 2006; Jonason et al., 2009), and being apt to poach those already in relationships (Jonason, Li, & Buss, 2010b). Despite these insights, nothing is known yet about the mating standards and mate preferences of such individuals.

A key dynamic in short-term mating is that women tend to be more reluctant than men are to engage in this type of behavior. For instance, from zero-acquaintance all the way up until 5 years of acquaintance, men are significantly more willing to engage in sexual relations than women are (Buss & Schmitt, 1993). Around the world, men report being more sociosexually unrestricted than women do (Schmitt, 2005). In a classic field study, an opposite-sex

stranger approached students on campus and propositioned them for a sexual encounter. Although over 70% of men agreed, not one woman consented (Clark & Hatfield, 1989).

Given women's reluctance towards casual sex and that both sexes prioritize physical attractiveness over other traits in casual sex partners (Li & Kenrick, 2006), men who successfully pursue a short-term mating strategy may need to be either especially physically attractive or have relatively low mating standards. Indeed, men tend to have lower overall standards than women do for casual sexual partners (Kenrick, Groth, Trost, & Sadalla, 1993). To the extent the Dark Triad traits are centered on short-term mating irrespective of individuals' physical attractiveness, we may expect men who are high on Dark Triad traits to have lower standards for short-term mates than men who are not high on Dark Triad traits. By having low standards, those high on the Dark Triad may create a target-rich mating environment.

Women, however, tend to be similarly selective for both long- and short-term mates (Kenrick et al., 1993; Li & Kenrick, 2006). As a function of the fact that men tend to be eager for casual sex, women do not have to lower their standards in order to attract a short-term mate (Symons, 1979). Thus, the same distinction would not apply for high-Dark Triad versus low-Dark Triad women. Therefore, we predict men who are high on the Dark Triad will have particularly low standards in their short-term mates; and we predict this pattern to hold up across all three of the Dark Triad traits given the near-uniform correlations between the Dark Triad traits and numerous measures of short-term mating (Jonason et al., 2009).

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People's personalities allow them to create or "select" the environments in which they engage (Buss, 1984a, 1987). Individuals may actively structure their environment through mate-choice; mate-choice being an important selection-domain (Buss, 1984a, 1987; Hamilton, 1964). A common effect in mate selection is assortative mating – people tend to match themselves up with others on specific characteristics (Buss & Barnes, 1986; Kenrick et al., 1993) like the Big Five (Buss, 1984b). The Dark Triad traits are correlated with disagreeableness (Paulhus & Williams, 2002), aggressiveness (Bushman & Baumeister, 1998), criminality (Hare, 1996), and manipulateness (Christie & Geis, 1970) – qualities, we would argue, are directly opposite to kindness. In addition, these individuals have a high need for stimulation (Jones & Paulhus, 2010) and risk-taking (Jonason, Koenig, & Tost, 2010a; Jonason & Tost, 2010); they may actually not place a high premium on kindness because they wish to create a volatile environment to stimulate themselves. Therefore, we predict scores on the Dark Triad traits would be negatively correlated with preferences for kindness in mates. However, given that psychopathy is correlated with risk-taking above the other traits (Jonason et al., 2010a), we expect this correlation to be localized to psychopathy when we control for variability in the other two.

Mate selection is not a new topic in social-personality psychology. We know that both the Big Five and the sex of the participant are important variables in understanding mate preferences and selection. The Dark Triad tends to be correlated with all parts of the Big Five (Jakobwitz & Egan, 2006; Paulhus & Williams, 2002), and men tend to score higher on the three traits than women do (Jonason & Kavanagh, 2010; Jonason & Webster, 2010; Jonason et al., 2009). In order to avoid the "jangle fallacy"¹ we checked our results by partialling the variance associated with the sex of the participant in explaining mate preferences, and then partialling the variance associated with the Big Five in explaining mate preferences in line with prior work (Jonason et al., 2009).

The Dark Triad traits tend not to be correlated with interest in long-term relationships (Jonason & Webster, 2010; Jonason et al., 2009). However, human societies are characterized by long-term mateships, and monogamy is held out as a socially desirable state and is socially enforced to some degree (Kanazawa & Still, 1999; McDonald, 1995). In response to such socioecological conditions, individuals who score high on the Dark Triad may still engage in medium- or long-term pair-bonding (Campbell & Foster, 2002). In accordance with prior work (Jonason & Kavanagh, 2010; Jonason et al., 2009, 2010b), we examined the manner in which the Dark Triad traits operate in both short-term and long-term contexts. Based on past research on mate preferences and recent studies that implicate the Dark Triad as aligned with a short-term mating strategy, we expected standards for short-term mates to be lowest for men scoring highest on the Dark Triad. We also investigated how these traits lead individuals to structure their environment to be consistent with their personality traits in both mating contexts.

2. Method

We examined how men and women's overall standards for long- and short-term mates related to their scores on the Dark Triad. In addition, we examined correlations between the Dark Triad and mate preferences where we control for the Big Five and then the sex of the participant. Last, we tested for moderation by the mating context and by the sex of the participant.

2.1. Participants

Two hundred and forty-two psychology students (108 men; 134 women), aged 17–53 years ($M = 20.89$, Median = 19, $SD = 5.33$) located in the Southern US received partial course credit for filling out the surveys described below. Ninety-three percent of the sample was heterosexual, with 3% homosexual and 4% bisexual. Forty-seven percent of the sample self-identified as "single" and the remaining 53% self-identified as "involved" (i.e., married or seriously dating).

2.2. Procedures and measures

Participants completed the survey online. Only those participants from unique IP addresses were included to insure the assumption of independence was not violated. The Dark Triad "Dirty Dozen", a 12-item measure of the Dark Triad with four items per subscale, was used (Jonason & Webster, 2010). Participants were asked to what extent they agreed (1 = *not at all*, 5 = *very much*) with statements such as: "I tend to want others to admire me"; "I tend to lack remorse"; and "I have used deceit or lied to get my way." Items were averaged together to create an index of narcissism (Cronbach's $\alpha = .84$), Machiavellianism ($\alpha = .86$), psychopathy ($\alpha = .74$), and an aggregated index of all three ($\alpha = .90$). The three traits were correlated with one another between .49 and .70 ($p < .01$). Men scored higher on these measures than women did on all three dimensions, but the sex differences were not significant.²

To measure the Big Five, we used the Ten-Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003), which asks two questions for each dimension. Participants were asked, for instance, how much (1 = *not at all*, 5 = *very much*) they think of themselves as "extraverted, enthusiastic" and "quiet, reserved" (reverse-scored) as measures of extraversion. Estimates of internal consistency returned low rates: extraversion ($\alpha = .48$), agreeableness ($\alpha = .31$), conscientiousness ($\alpha = .26$), neuroticism ($\alpha = .31$), and openness ($\alpha = .39$), as is to be expected for scales composed of a small number of items (Kline, 2000); internal consistency estimates are positively related to the number of scale items (Carmines & Zeller, 1979). Nevertheless, because we sought to control for variability in the Big Five and not to directly study the Big Five, we proceeded.

To measure mate preferences and standards, we used a set of traits from previous mate preference papers (Li, Bailey, Kenrick, & Linsenmeier, 2002; Li & Kenrick, 2006; Li, Valentine, & Patel, 2011) – social level, creativity, kindness, liveliness, and physical attractiveness (presented in that order, from left to right). For both a long- and short-term mate (counterbalanced), participants provided their minimum accepted decile (10th percentile, 20th percentile, etc.) for each trait by ticking their answers. Participants were told to treat each decile as indicative of the quality of a hypothetical mate. For instance, a mate who was in the 10th decile was in the bottom 10% of other potential mates in terms of that trait.

3. Results

We first ran a General Linear Model analysis using SPSS with trait selections as the dependent variable. Trait and duration (i.e., long-term, short-term) were within-subjects variables and participants' sex was a between-subjects variable. Dark Triad composite scores were entered as a continuous between-subjects variable (i.e., covariate in SPSS). There was an interaction of duration \times sex \times Dark Triad ($F(1, 234) = 5.87$, $p < .05$, $\eta_p^2 = .02$). To inter-

¹ Introducing a new variable that is a clone of another (Block, 2000).

² This limitation prohibited us from doing mediation analyses.

pret this interaction, we performed a median split³ of the Dark Triad composite variable and reran the analysis. The interaction was still significant ($F(1, 234) = 5.43, p < .05, \eta_p^2 = .02$). As shown in Fig. 1, both sexes had equally high overall standards for long-term mates, and this was true for both low- and high-Dark Triad individuals; however, men had somewhat lower standards than women did for short-term mates. In particular, men who were high on Dark Triad traits had even lower standards than men who were low on these traits did ($F(1, 234) = 4.14, p < .05, \eta_p^2 = .02$). This confirms our primary prediction that those men who are high on the Dark Triad will have mate preferences that facilitate a short-term mating strategy by providing numerous opportunities to engage in said matings. When we repeated this analysis, with all the individual Dark Triad traits entered as covariates, only two significant interactions were found: psychopathy ($F(1, 234) = 2.13, p < .05, \eta_p^2 = .07$) and Machiavellianism ($F(1, 234) = 2.33, p < .05, \eta_p^2 = .09$). The effect was not significant for narcissism.

Table 1 contains the zero-order correlations and the standardized regression coefficients predicting mate preferences. The inclusion of multiple regression analysis wherein all three of the Dark Triad traits are entered as predictors of mate preferences allows us to assess the unique contributions of each of the Dark Triad traits independently, while controlling for shared variability with the others. Generally speaking, the Dark Triad was uncorrelated with mate preferences. However, the Dark Triad was linked to the creation of a mating environment that is composed to limited kindness through psychopathy, consistent with our prediction.

3.1. Avoiding the Jangle Fallacy

We controlled for the collective influence of the Big Five. The Dark Triad composite was correlated with preferences of a long-term mate who was physically attractive ($pr(235) = .15, p < .05$) remained negatively correlated with preference for a short-term mate who was kind ($pr(235) = -.17, p < .05$), suggesting this correlation was robust to the partialling of the Big Five, and was negatively correlated with preferences for a short-term mate who was creative ($pr(235) = -.17, p < .05$). Narcissism was positively correlated with preference for long-term mates who were physically attractive ($pr(235) = .18, p < .05$) and have high social level ($pr(235) = .15, p < .05$). Psychopathy remained negatively correlated with kindness preferences in long-term mates ($pr(235) = -.19, p < .01$), suggesting this correlation was robust to the partialling of the Big Five.

When we partialled the variance associated with the sex of the participant much of our results with the Dark Triad remained significant. Psychopathy was still correlated with preferences for short-term mates ($pr(235) = -.21, p < .01$)⁴ and was negatively correlated with preference for long-term mates who were kind ($pr(235) = -.20, p < .01$). Narcissism was correlated with preferences for long-term mates who had high social level ($pr(235) = .16, p < .05$) and negatively correlated with preference for short-term mates who were creative ($pr(235) = -.22, p < .01$) and kind ($pr(235) = -.14, p < .05$). Machiavellianism was negatively correlated with preferences for short-term mates who were creative ($pr(235) = -.13, p < .05$). The Dark Triad composite was correlated with lower preferences for short-term mates who were creative ($pr(235) = -.18, p < .01$) and kind ($pr(235) = -.17, p < .01$).

³ Grand Mean = 2.02, Grand Median = 1.92, Grand SD = 0.74; Female Mean = 1.94, Female Media = 1.83, Female SD = 0.75; Male Mean = 2.11, Male Median = 1.96, Male SD = 0.73.

⁴ This is suppression. Similar suppression has been reported in previous work (Jonason & Kavanagh, 2010).

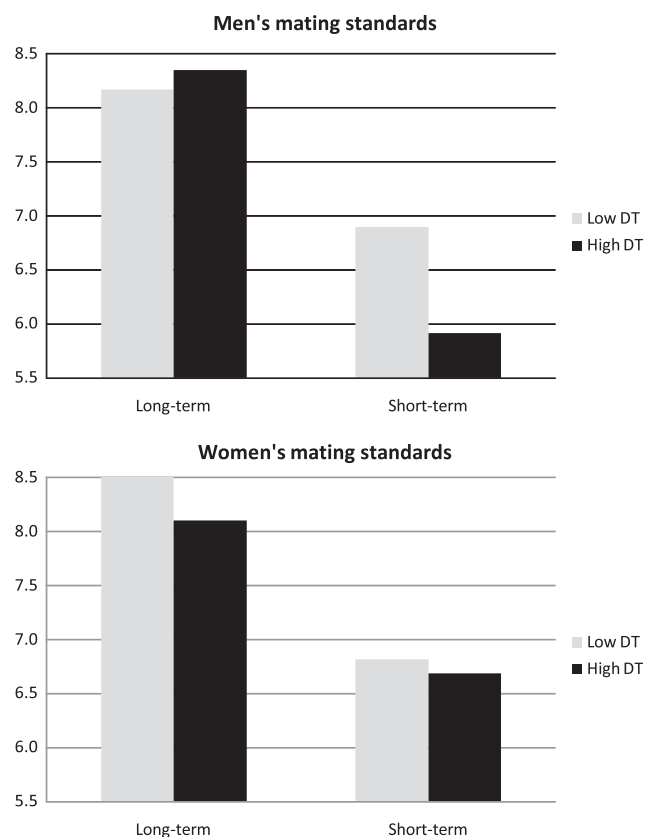


Fig. 1. Long- and short-term mating standards (average minimum acceptable decile) for individuals with high versus low Dark Triad scores.

3.2. Moderation

By examining the correlations across mating durations we were able to determine if the correlations between the Dark Triad differed by mating duration and the sex of the participant. We conducted a series of Fisher's z-tests⁵ (Cohen, Cohen, West, & Aiken, 2003). As a result of the limited evidence for moderation, we do not include full correlation matrices. These can be obtained by contacting the first author. What we found (z 's $|1.65|$ to $|2.24|$, p 's $< .05$), was noted by subscripts in the Table. Generally speaking, the moderation by mating context was localized to narcissism and was generally negative or nil in the context of short-term mating and positive or nil in the context of long-term mating.

Results also suggest even more limited moderation by the sex of the participant, likely the result of diminished power as per disaggregated correlations. As such we did not include the correlation matrix by the sex of the participant but this can be obtained by contacting the first author. For the trait of social level in long-term mates, narcissism ($z = -1.96, p < .05$) was positively correlated with allocation-rates in men ($r = .25, p < .05$) but not in women ($r = .01$).

4. Discussion

Results suggest those who are high on the Dark Triad traits create advantageous environments for short-term mating by having a generally lower set of standards in their mates as shown in Fig. 1. By not being particularly choosy, those who are characterized by

⁵ This is considered the most liberal test for moderation (Baron & Kenny, 1986). Our failure to find much evidence for moderation even with this liberal test suggests moderation is not particularly strong for the sex of the participant nor mating context.

Table 1
Zero-order correlations and multiple regression coefficients for the associations between the Dark Triad and mate preferences across long-term and short-term mates along with moderation tests by mating context.

	<i>r</i> (beta)			
	Psychopathy	Narcissism	Machiavellianism	Dark triad
<i>Long-term mate preferences</i>				
Social level	-.03 (-.15)	.12 (.18)	.09 _b (.06)	.09 _c
Creativity	-.11 (-.10)	-.08 (-.05 _g)	-.08 (.02)	-.11
Kindness	-.21** (-.26**)	-.04 (.05 _f)	-.08 (.05)	-.12
Liveliness	-.10 (-.17 [†])	.06 _a (.15 _e)	-.00 (-.01 _h)	-.01
Physical attractiveness	.05 (.00)	.12 (.17 _d)	.06 (-.06)	.10
<i>Short-term mate preferences</i>				
Social level	-.13 (-.11)	-.05 (.07)	-.10 _b (-.08)	-.10 _c
Creativity	-.10 (-.00)	-.22** (-.25** _g)	-.13 [†] (.04)	-.18**
Kindness	-.22** (-.23**)	-.17** (-.13 _f)	-.12 (.12)	-.19**
Liveliness	-.10 (-.13)	-.10 _a (-.12 _e)	-.03 (.14 _h)	-.08
Physical attractiveness	-.02 (-.01)	-.02 (-.02 _d)	-.03 (-.01)	-.03

Note: Comparisons among subscript letters are significant ($p < .05$) moderation tests using the Fisher's *z*-test for moderation effects by mating duration.

[†] $p < .05$.

** $p < .01$.

high rates of the Dark Triad traits may insure they have ample supply of potential short-term mates. This is consistent with past research suggesting the Dark Triad facilitates a short-term mating strategy for men (Jonason et al., 2009). Alternatively, the lower standards we found in men who are high on the Dark Triad could represent a Plan B strategy where they start with high standards (Plan A strategy) but are willing to lower their standards (Plan B) as an adaptive response to create more options in the mating pool when faced by rejection; rejection that may be a function of their disagreeable nature.

Those high on psychopathy in particular devalued the trait kindness in their long- and short-term mates. Those high on the Dark Triad traits may choose long- and short-term mates in order to create a volatile environment (i.e., drama-rich) to appease their high need for stimulation and impulsivity (Jonason et al., 2010a; Jones & Paulhus, 2010) as shown in Table 1. Alternatively, those high on the Dark Triad may commit character-specific assortment (Buss & Barnes, 1986). The Dark Triad is correlated with all manner of "antisocial" personality traits like aggressiveness (Jonason & Webster, 2010) and criminality (Hare, 1996) and individuals high on the Dark Triad might accept these traits in partners.

The Dark Triad traits have proven to be a hot topic in research on personality (Jakobowitz & Egan, 2006; Jones & Paulhus, 2010; Paulhus & Williams, 2002) and in the media (Bhattacharya, 2010; Jackman, 2008); however, it is important to avoid the "jangle fallacy" (Block, 2000). To do so, we controlled for other sources of variability that are related to mate preferences like the sex of the participant and the Big Five. Most notably, the negative correlation between kindness and psychopathy remains, suggesting the Dark Triad does account for unique variance in mate preferences.

These results may imply the Big Five might not be the only personality traits with important repercussions (McAdams, 1992; Stagner, 1994). In response to this realization, some have expanded the Big Five to include honesty and humility (Lee & Ashton, 2005); others have focused on mating (Schmitt & Buss, 2000; Simpson & Gangestad, 1991) as important additions to our understanding of inter-individual variability. The Dark Triad may be an additional cluster of personality traits that have important consequences.

We explored moderation effects by mating context and the sex of the participant. The moderation effects for mating context were almost exclusively localized to narcissism. In the context of short-term mates, traits like creativity, kindness, and liveliness were all devalued whereas in the context of long-term mates, traits like liveliness and physical attractiveness were valued. There was only one significant moderation effect for the sex of the participant,

suggesting narcissistic men care about long-term mates who have social status whereas females who are narcissistic do not. Seeing that on average women care about long-term mates having social level more than men do (Buss, 1989; Li et al., 2002), it seems we have found one individual differences variable that reverses this sex difference; however, we used the most liberal test for moderation and thus these results should be interpreted with caution and replicated. Generally, we found little evidence for moderation by either the sex of the participant or mating context.

This study had a number of limitations. First, one might question our adoption of the Dirty Dozen. Although brief, this measure is psychometrically stable, has moderate construct validity, and good convergent and divergent validity (Jonason & Webster, 2010; Jonason et al., submitted for publication). Second, one might question our use of the TIPI to control for other sources of variability (Miller et al., 2010). The Dirty Dozen does correlate with the agreeableness dimension of the TIPI suggesting that at least in this case it is reasonable to use them both. In addition, because the Dark Triad are related to numerous facets of the Big Five and the Big Five are all related to mating outcomes (Schmitt & Shackelford, 2008), we felt it necessary to control for the whole of the Big Five while not increasing subject fatigue while completing the budget-allocation task where participants had to think in deciles. Nevertheless, future work might benefit from assessing these correlations with the longer measures of the Dark Triad and the Big Five. Third, the correlations between budget-allocations and the Dark Triad traits were all rather small, never exceeding .25, and thus the magnitude of the relationships were modest at best. Fourth, we have only examined the allocation to five traits that have been used in past budget-allocation studies and are essential in mate preference studies, but there are numerous other traits that individuals want in their mates (Buss, 1989). Surely, a study with a more exhaustive list of traits desired in actual, not hypothetical, mates should be done. Fifth, we speculated that psychopathy might be associated with creating a hostile environment through mate choice; a prediction that deserves direct testing. Sixth, we have examined only two relationship contexts but more might exist beyond "ideal types" (Manning, Giordano, & Longmore, 2006, p. 462) like friends-with-benefits (Epstein, Calzo, Smiler, & Ward, 2009) and booty-call relationships (Jonason, Li, & Richardson, 2010c).

Prior research suggests the Dark Triad traits are important individual differences in accounting for a range of interpersonal and intrapersonal phenomena. They are heritable (Vernon et al., 2008), correlated with important criterion variables like number

of sex partners (Jonason et al., 2009), and correlated with life outcome data like risk-taking (Jonason, Koenig, & Tost, 2010a). In the present study, we have extended our understanding of the Dark Triad by correlating them with mate preferences. The selection of mates is an important context in which to understand any personality trait (Buss, 1984a, 1987). In order to facilitate the short-term mating strategy in men that appears to be manifested in the Dark Triad (Jonason, Li, & Buss, 2010b; Jonason et al., 2009), these individuals may create a “target-rich” environment by having low standards in their mates. In addition, we have shown that those high on psychopathy may create mating contexts that are volatile and choose mates who are similar to them in terms of being low on kindness.

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