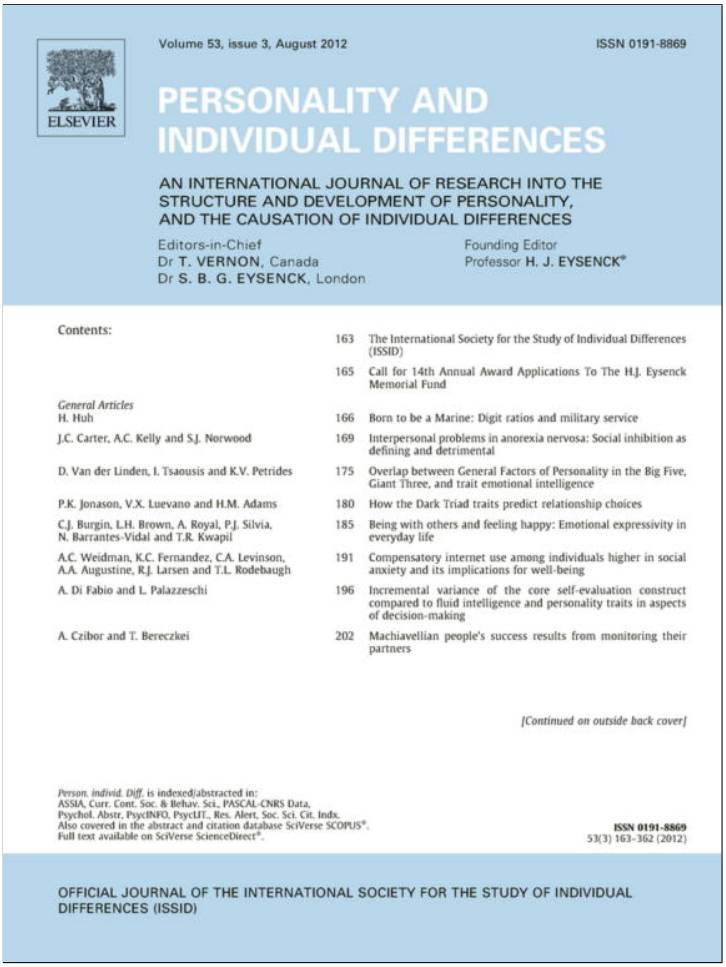

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How the Dark Triad traits predict relationship choices

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ABSTRACT

While previous studies have correlated the Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism) with a preference for short-term relationships, little research has addressed possible correlations with short-term relationship sub-types. In this online study using Amazon's Mechanical Turk system ($N = 210$) we investigated the manner in which scores on the Dark Triad relate to the selection of different mating environments using a budget-allocation task. Overall, the Dark Triad were positively correlated with preferences for short-term relationships and negatively correlated with preferences for a long-term relationship. Specifically, narcissism was uniquely correlated with preferences for one-night stands and friends-with-benefits and psychopathy was uniquely correlated with preferences for booty-call relationships. Both narcissism and psychopathy were negatively correlated with preferences for serious romantic relationships. In mediation analyses, psychopathy partially mediated the sex difference in preferences for booty-call relationships and narcissism partially mediated the sex difference in preferences for one-night stands. In addition, the sex difference in preference for serious romantic relationships was partially mediated by both narcissism and psychopathy. It appears the Dark Triad traits facilitate the adoption of specific mating environments providing fit with people's personality traits.

1. Introduction

The Dark Triad traits (i.e., Machiavellianism, narcissism, and psychopathy; Paulhus & Williams, 2002) appear to be related to an opportunistic, short-term mating strategy (Jonason, Li, & Buss, 2010b; Jonason, Li, Webster, & Schmitt, 2009; Jonason, Valentine, Li, & Harbeson, 2011). However, this research has, like other research (Forster, Ozelsel, & Epstude, 2010; Greitemeyer, 2007), treated relationship choices in an overly simplistic fashion. Recent evidence (e.g., Garcia & Reiber, 2008; Jonason, Li, & Cason, 2009) suggests there is a much wider spectrum of relationships individuals engage in than previous conceptualizations containing only one-night stands (i.e., primarily sexual relationships that occur one time only; Cubbins & Tanfer, 2000; Fisher & Bryne, 1978) and serious romantic relationships (i.e., committed and presumably monogamous romantic relationships; Christopher & Sprecher, 2000; Li, Bailey, Kenrick, & Linsenmeier, 2002) as exemplars. In this study, we examine the associations of the Dark Triad with preferences for four different types of relationships (i.e., one-night stands, booty-calls, friends-with-benefits, and serious romantic relationships).

Relationships like "hook ups" (Fielder & Carey, 2010; Townsend & Wasserman, 2011), "friends-with-benefits" (i.e., relationships between friends in which the friends engage in sexual activity, but do not define their relationship as romantic; Epstein, Calzo, Smiler, & Ward, 2009; Wentland & Reissing, 2011), and "booty-calls" (i.e., relationships where there is solicitation from a non-long-term partner for the explicit or implicit intent of engaging in sexual activity; Jonason et al., 2009a; Jonason, Li, & Richardson, 2010; Wentland & Reissing, 2011) have come under recent investigation. Although strong, formal, operational definitions have thus far eluded researchers (Epstein et al., 2009; Jonason et al., 2010c; Wentland & Reissing, 2011), all of these relationships are characterized by individuals who engage in repeated sexual encounters with someone who is not their committed partner. Between 25% and 75% (Grello, Welsh, & Harper, 2006; Jonason et al., 2009a; Paul, McManus, & Hayes, 2000) of sexual acts committed by adolescents and college-students happen in the context of sexual relationships that lack formal commitment (in contrast to serious romantic relationships) but are recurring acts committed by those with more than a passing acquaintanceship (in contrast to one-night stands).

Given the range of relationships individuals can choose from and that personality traits are instrumental in selecting preferred mating environments (Buss, 1987), we examine how the Dark Triad traits relate to relationship choices. Past research suggests the Dark Triad traits are instrumental in selecting volatile, short-term mating environments by having markedly low standards for

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their short-term partners and preferring a game playing and a pragmatic love style (Jonason & Kavanagh, 2010; Jonason et al., 2011). The Dark Triad traits should be associated with preferring casual relationships of one kind or another. Narcissism in particular should be associated with desiring a variety of relationships. Narcissism is the most social of the three, having an approach orientation towards friends (Foster & Trimm, 2008) and an externally validated "ego" (Buffardi & Campbell, 2008). By preferring a range of relationships, narcissists are better suited to reinforce their sense of self. Therefore, although collectively the Dark Triad traits will be correlated with preferring different casual sex relationships, after controlling for the shared variability among the three traits, we expect that narcissism will correlate with preferences for one-night stands and friend-with-benefits.

In contrast, psychopathy may be characterized by an opportunistic, exploitive mating strategy (Figueredo et al., 2006; Jonason et al., 2009b; Mealey, 1995). Booty-call relationships by their very name denote a degree of exploitation. That is, individuals use others – their booty-call partner – for sex by a late night phone call with the expressed or implied purpose of sex (Jonason et al., 2009). Therefore, we expect that after controlling for the shared variability among the three traits, psychopathy will be correlated with preferences for booty-call relationships. Such a relationship may be consistent with their exploitive mating strategy. Last, although prior work has linked Machiavellianism with a short-term mating style (McHoskey, 2001), more sophisticated analyses controlling for the shared correlation with psychopathy has revealed that Machiavellianism might not be central to predicting short-term mating (Jonason et al., 2011). Therefore, we expect Machiavellianism to not be correlated with preferences for any relationships.

Alternatively, long-term relationships may not be the ideal relationship-context for those high on the Dark Triad traits (Foster, Shrira, & Campbell, 2006; Jonason & Webster, 2010; Jonason et al., 2009, 2010). These individuals are impulsive (Jonason & Tost, 2010; Jones & Paulhus, 2011), think little of long-term consequences (Jonason & Tost, 2010), and are generally disagreeable (Jones & Paulhus, 2010; Lee & Ashton, 2005; Paulhus & Williams, 2002). Therefore, we expect the Dark Triad, most likely narcissism (Foster et al., 2006), to be slightly negatively associated with a preference for serious relationships.

Much has been made of sex differences and similarities in mating psychology (Buss & Schmitt, 1993; Townsend & Wasserman, 2011). Evolutionary psychologists, a la Parental Investment Theory (Trivers, 1972), predict that the sexes have different psychological make-ups as an expression of different recurrent selection pressures related to obligations to offspring and reproduction. In short-term relationships, men pay fewer costs for engaging in sex and thus men are willing and interested in these relationships. In contrast, both sexes (relatively) pay the costs of pregnancy in long-term relationships. Field work confirms such contentions (Clark & Hatfield, 1989). As interesting as sex differences are, they beg the further question of how – psychologically speaking – the sexes differ. One candidate to explain the differences between men and women is the Dark Triad traits, where men reliably score higher than women do (Jonason et al., 2009, 2011). Indeed, mediation tests with the Dark Triad have revealed that the Dark Triad facilitates a short-term mating style in men (Jonason et al., 2009). We suspect that mediation will only be present in relationships that are sexual in nature. That is, because one-night stands and booty-call relationships are more sexual than emotional in nature (Jonason et al., 2010c), we expect the sex differences in preferences to engage in these relationships to be mediated by the Dark Triad.

If personality traits allow individuals to select their optimum environment (Buss, 1984, 1987), then the Dark Triad, as personality traits, should be related to preferences for mating environments (Jonason et al., 2011). In concert with prior work (Foster et al., 2006; Jonason et al., 2009), we contend that the Dark Triad traits predispose individuals to select short-term mating environments. However, prior research has not examined the apparent nuances in casual sex relationships that have been uncovered recently (Grello et al., 2006; Paul et al., 2000). In this study, we examine individuals' relationship preferences to add to what we know about the short-term, opportunistic mating strategy that characterizes the Dark Triad.

2. Method

2.1. Participants

Participants were recruited through Amazon's Mechanical Turk system (Buhrmester, Kwang, & Gosling, 2011). Mechanical Turk is an online labor market where "requesters" post jobs and "workers" choose which jobs to do for pay. Participation was limited to those 18 years or older who were in the United States. Participants received $0.50(U.S.) compensation.

Participants ($N = 210$) consisted of 119 females (56.7%) and 91 males (43.3%), ranging in age from 18–68 years old ($M = 33.57$, $SD = 11.37$). Sixty-six were married (31.4%), 68 were single (32.4%), 39 were dating (18.6%), 24 were engaged to be married (11.4%), 12 were divorced (5.7%), and one was widowed (.5%). A majority of the sample was White/Non Hispanic ($n = 176$, 83.8%). Three identified as American Indian/Alaskan (1.4%), 9 as Asian/Pacific Islander (4.3%), 7 as Black/Non Hispanic (3.3%), 8 as Hispanic (3.8%), and 7 identified as "Other" (3.3%). One hundred eighty-one participants identified as heterosexual (86.2%), 17 identified as bisexual (8.1%), and 12 identified as homosexual (5.7%).

2.2. Materials and procedure

We asked participants a series of questions regarding four different relationship-types (i.e., one-night stands, booty-call relationships, friends-with-benefits, and serious romantic relationships). Participants were given the definitions provided above in the introduction for the various types of relationships.

A budget-allocation task (Jonason et al., 2011; Li, Valentine, & Patel, 2011; Li et al., 2002) was used to determine the extent to which participants preferred the four different relationship-types. Participants were asked to build their ideal relationship-life with the four different relationships. Participants were given a budget of 10 mate-dollars to spend on these various types of relationships, where the more points spent on a given relationship-type indicated a greater preference for that type of relationship. Because we are only concerned with relationship priorities, participants' responses were constrained. Participants were told that they could only allocate these 10 points and that any point given to one relationship is one that cannot be given to another. Last, they were instructed that their total allocations must equal 10.

Participants completed a measure of each of the Dark Triad traits. Machiavellianism was measured with the 20-item MACH-IV (Christie & Geis, 1970). Participants indicated how much they agreed (1 = *strongly disagree*; 5 = *strongly agree*) with statements such as, "It is hard to get ahead without cutting corners here and there" and "People suffering from incurable diseases should have the choice of being put painlessly to death." The items were averaged to create a Machiavellianism index (Cronbach's $\alpha = .76$).

Narcissism was assessed with the 40-item Narcissistic personality inventory (NPI-40; Raskin & Terry, 1988). For each item, participants chose one of two statements they felt applied to them. One of the two statements reflected a narcissistic attitude (e.g., "I

have a natural talent for influencing people."), whereas the other statements did not (e.g., "I am not good at influencing people."). We summed the total number of narcissistic statements the participants endorsed as an index of narcissism ($\alpha = .79$).

The 31-item self-report psychopathy scale-III (SRP-III; Paulhus, Neumann, & Hare, in press) was used to assess sub-clinical psychopathy. Participants rated how much they agreed (1 = *strongly disagree*; 5 = *strongly agree*) with statements such as, "I enjoy driving at high speeds" and "I think I could beat a lie detector." Items were averaged to create an index of psychopathy ($\alpha = .76$).

3. Results

An examination of the zero-order correlations revealed significant relationships between each of the Dark Triad traits (with one exception) and preferences for each type of relationship in the predicted direction (see Table 1). The Dark Triad traits were each associated positively with preferences for low-commitment relationships (i.e., one-night stands, booty-call relationships, and friends-with-benefits) and negatively with a preference for serious romantic relationships. However, Machiavellianism did not significantly predict preferences for booty-call relationships (see Table 1).

Multiple regression analyses were used to determine the unique effects of each Dark Triad trait on preferences for each relationship-type. Preferences for each relationship-type were used as the criterion variables, and the three measures of the Dark Triad traits were entered as predictors. Consistent with above, narcissism was uniquely associated with preferences for one-night stands and friends-with-benefits. Psychopathy was uniquely associated with booty-call relationships. Both narcissism and psychopathy were negatively associated with preferences for serious romantic relationships (see Table 1). These relationships were robust to controlling for age ($r_{psychopathy} = -.21$, $p < .01$; $r_{Machiavellianism} = -.19$, $p < .01$; $r_{narcissism} = -.06$) and sex and when we attempted to reduce the skew in relationship choices.

As a lead up to doing mediation analyses, we tested for sex differences (Table 2). Men scored higher than women did on psychopathy and narcissism, but only slightly ($p = .06$) on Machiavellianism. Men expressed a stronger preference for one-night stands and booty-call relationships than women did but women expressed a stronger preference for serious romantic relationships than men did. Given what we found here and above, we conducted mediation analyses for the sex differences in preferences for one-night stands, booty-call relationship, and serious romantic relationships using psychopathy and narcissism as mediators. To do so we used the INDIRECT procedure developed for SPSS (Preacher & Hayes, 2008). We only used the mediators that revealed a significant and unique association in regression analysis (see Table 1).

We found significant mediation three times (see Fig. 1). The sex difference in preferences for one-night stands ($R^2 = .10$, $p < .01$) was partially mediated by narcissism (indirect effect = .09, 95% CI [.02,.18]). Adding narcissism to the model explained an additional portion of variance ($\Delta R^2 = .04$, $p < .01$). The sex difference in preferences for booty-calls ($R^2 = .08$, $p < .01$) was partially mediated by psychopathy (indirect effect = .09, 95% CI [.02,.22]). Adding psychopathy to the model explained an additional portion of variance ($\Delta R^2 = .05$, $p < .01$). The sex difference in preference for serious romantic relationships ($R^2 = .07$, $p < .01$) was partially mediated by narcissism and psychopathy (total indirect effect = −.15, 95% CI [−.30, −.06]). Adding psychopathy and narcissism to the model explained an additional portion of variance ($\Delta R^2 = .08$, $p < .01$). Narcissism uniquely explained part of the sex difference in preferences for serious romantic relationships (indirect effect = −.08, 95% CI [−.19, −.02], Sobel's $z = 2.06$, $p < .05$). Psychopathy also uniquely explained part of the sex difference in preferences for serious romantic relationships, although the more conservative Sobel test was not quite statistically significant (indirect effect = −.07, 95% CI [−.17, −.01], Sobel's $z = 1.86$, $p = .06$).

4. Discussion

In this study, we have extended what we know about how the Dark Triad traits are related to choices in relationships. Past research suggests the traits are correlated with a short-term mating strategy (Jonason et al., 2009b; McHoskey, 2001) and not with a long-term mating style (Foster et al., 2006; Jonason et al., 2010b). However, there are numerous types of relationships one has to choose from (Epstein et al., 2009; Jonason et al., 2009; Wentland & Reissing, 2011). We examined the associations between relationship preferences for three short-term relationships (i.e., one-night stands, booty-call relationships, and friends-with-benefits) and one long-term relationship (i.e., serious romantic relationship) and the Dark Triad traits.

We suggested, consistent with prior work (Buffardi & Campbell, 2008; Foster & Trimm, 2008), narcissists' externally validated "egos" may lead them to create a social environment to stroke their own ego. Narcissism was correlated with preferences for all four relationships. When we controlled for the shared variance among the three, only the preference for booty-call relationships dropped out. By keeping oneself open to a variety of relationships, including serious relationships, one-night stands, and friends-with-benefits, the narcissist may allow her/himself sufficient sociosexual interactions to make oneself feel good.

Results suggested psychopathy and Machiavellianism, respectively, may play a secondary and even irrelevant role in predicting relationship choices. Although Machiavellianism was correlated with preferences for one-night stands, friends-with-benefits, and serious romantic relationships, when the shared variance among the Dark Triad was taken out, Machiavellianism did not predict any relationship preferences. This may be consistent with other work suggesting prior associations with Machiavellianism were driven by shared variance with the others (Jonason, Koenig, & Tost, 2010a; Jonason & Tost, 2010). After the same partialing, psychopathy was correlated with preferences for booty-call relationships. These relationships may be exploitive by their nature whereby

Table 1
Zero-order correlations and standardized regression coefficients of the Dark Triad traits with preferences for relationships.

	r (β)		
	Machiavellianism	Narcissism	Psychopathy
Preference for one-night stands	.19** (.13)	.27** (.20**)	.25** (.12)
Preference for booty-call relationships	.10 (−.01)	.22** (.13)	.27** (.22**)
Preference for friends-with-benefits	.16* (.11)	.22** (.19**)	.16* (.04)
Preference for serious romantic relationships	−.19** (−.10)	−.31** (−.23**)	−.28** (−.15*)

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

Table 2
Means and standard deviations (overall, and for men and women separately) of preferences for various relationship-types and the Dark Triad traits.

	Mean (*SD*)			*t*	*d*
	Overall	Men	Women		
Preference for one-night stands	0.78 (1.26)	1.24 (1.66)	0.42 (0.67)	4.90**	0.68
Preference for booty-call relationships	0.60 (0.95)	0.92 (1.17)	0.38 (0.66)	4.27**	0.59
Preference for friends-with-benefits	1.27 (1.61)	1.43 (1.51)	1.15 (1.67)	1.24	0.17
Preference for serious romantic relationships	7.30 (2.87)	6.41 (3.06)	7.97 (2.56)	4.02**	−0.56
Machiavellianism	2.90 (0.45)	2.98 (0.44)	2.87 (0.41)	1.88	0.26
Narcissism	12.67 (7.69)	14.41 (8.45)	11.35 (6.83)	2.90**	0.40
Psychopathy	1.96 (0.35)	2.05 (0.41)	1.90 (0.28)	3.09**	0.43

** $p < .01$.

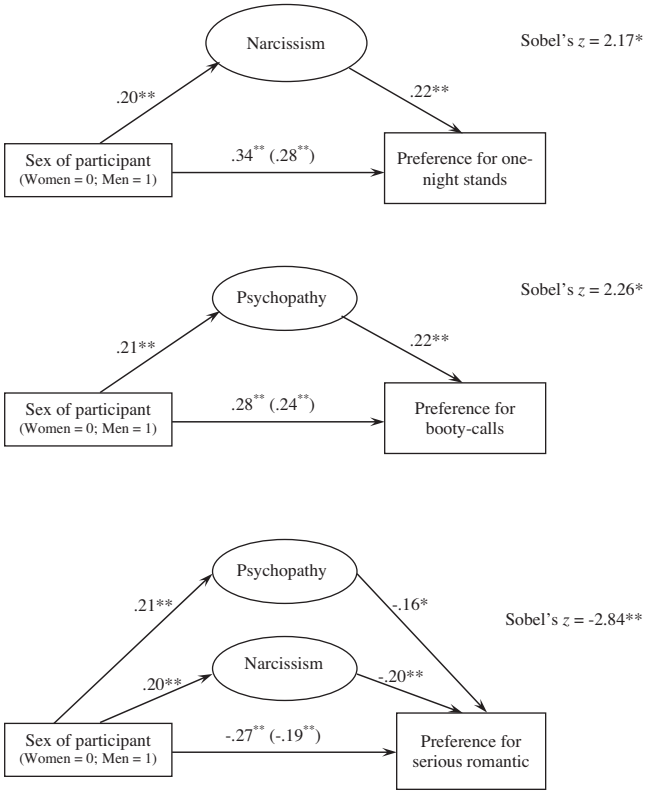

Fig. 1. Standardized regression coefficients demonstrating partial mediation of sex differences in relationships choices. *$p < .05$; **$p < .01$.

individuals are essentially "using" one another for sex. Psychopathy has been repeatedly labeled antisocial, exploitative, and part of a cheater strategy (Figueredo et al., 2006; Jonason, Li, Webster, & Schmitt, 2009; Mealey, 1995).

Interestingly, both psychopathy and narcissism were negatively correlated with expressed preferences for a serious romantic relationship. Although past research has revealed a near-zero correlation between the Dark Triad traits and long-term mating interest (Jonason, Li, Webster, & Schmitt, 2009; Jonason & Webster, 2010), the budget-allocation technique (Li et al., 2002) may more strongly reveal this negative correlation. The method forces participants to allocate mate dollars to their preferences thereby (and perhaps artificially) creating a void for traits one does not prioritize. This void may be why these correlations were significant.

We found sex differences consistent with prior work whereby women were more interested in long-term relationships than men were and men were more interested in short-term relationships than women were (Buss & Schmitt, 1993; Clark & Hatfield, 1989). However, sex differences in relationship choice begs the question of what are the psychological mechanisms that drive these differences. In other words, what are the psychological aspects that differ between men and women that lead to such differences? One of the reasons sex differences are so controversial is that documenting sex differences is descriptive science. Such research, while interesting, is only the start of a research program for researchers who hope to understand how men and women differ and are the same. Prior research suggests the Dark Triad composite facilitates short-term mating in men (Jonason, Li, Webster, & Schmitt, 2009). Unfortunately, because Machiavellianism was not correlated with narcissism, we were forced to do mediation analyses with just psychopathy and narcissism. We found that psychopathy partially mediated the sex difference in preferences for booty-call relationships whereas narcissism partially mediated the sex difference in preferences for one-night stands. Both of these are consistent with prior work and predictions. However, we also found that the sex difference in preferences for serious romantic relationships was partially mediated by both narcissism and psychopathy. This was an unexpected finding and we offer only tentative explanations. As noted above, we are not sure whether the negative associations between preference for this type of relationship and psychopathy and narcissism were artifacts of the budget-allocation technique or a previously unknown association. If we assume the correlations are veridical, they suggest that being low on these traits facilitates long-term mating in women. This poses an interesting counterpoint to prior work (Jonason, Li, Webster, & Schmitt, 2009) and highlights a potential limitation in work on the Dark Triad in that it tends to focus on positive correlations instead of negative ones (Jonason, Li, & Buss, 2010b; Jones & Paulhus, 2010).

We have already noted a potential limitation in the budget-allocation technique that has hitherto received limited notice. While the budget-allocation technique has been used before in studies on the Dark Triad (Jonason et al., 2011) and it may be a more ecologically valid technique to understanding mate choices because of the constrained nature of the decision making it requires of participants (Li et al., 2002, 2011) it creates a somewhat ipsative data structure which pose special problems for correlational analyses. Typical ipsative data (i.e., forced-choice) are especially lacking, relegating analyses to non-parametric tests. However, the budget-allocation method provides increased variability (albeit positively skewed as a direct result of the constraining nature of the method) in responses beyond categorical choices that may permit parametric tests to be conducted. When we verified our results, correcting for the skew, we found nearly identical results. While budget-allocation does not provide for the same variability normative questions (e.g., Likert style) do, it reduces extreme responding which is a valuable feature of the method. Nevertheless, future studies could utilize normative-style questions to replicate and extend our results. Moreover, future research

should explore the methodological limitations and benefits of the budget-allocation technique.

Our study is also limited in its reliance on American volunteers. Little work has examined the Dark Triad in international samples and to do so would undermine or verify the contention of some (Jonason, Li, Webster, & Schmitt, 2009; Jonason, Valentine, Li, & Harbeson, 2011) that these traits represent adaptive individual differences. Nevertheless, this study did not utilize a college-student sample, which is itself noteworthy. A final limitation is our failure to find a sex difference in Machiavellianism and a correlation between Machiavellianism and narcissism. This correlation has proven elusive before (Jonason et al., 2010b), in part precipitating the creation of the Dark Triad Dirty Dozen measure (Jonason & Webster, 2010). This limitation meant it would be in err to treat the Dark Triad as a composite (Jonason, Li, Webster, & Schmitt, 2009; Jonason, Valentine, Li, & Harbeson, 2011) but it allowed us to detail the specific trait(s) that mediate the sex differences in relationship choices we replicated.

The manner through which the situation and the person interact are of paramount concern for modern social-personality psychology (Buss, 1984, 1987). In this study, we have provided nuanced detail about how the Dark Triad traits may facilitate the creation of a variety of mating environments. It appears that narcissism provides the greatest variety of relationship options; psychopathy provides a potentially exploitive relationship option; and sex differences in one's interest in long-term and short-term relationships may be mediated by psychopathy and narcissism. In terms of relationships, you can't always get what you want, but if you are high on the Dark Triad, you may have sufficient options to get what you need.

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