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The Dark Triad personality: Attractiveness to women

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ABSTRACT

It has been suggested that the Dark Triad (DT) personality constellation is an evolved facilitator of men's short-term mating strategies. However, previous studies have relied on self-report data to consider the sexual success of DT men. To explore the attractiveness of the DT personality to the other sex, 128 women rated created (male) characters designed to capture high DT facets of personality or a control personality. Physicality was held constant. Women rated the high DT character as significantly more attractive. Moreover, this greater attractiveness was not explained by correlated perceptions of Big 5 traits. These findings are considered in light of mating strategies, the evolutionary 'arms race' and individual differences.

1. Introduction

In light of sex differences in the Dark Triad (narcissism, Machiavellianism and psychopathy), it has been proposed that this trait constellation may represent an evolved male adaptation for short-term mating. If so, this personality should be attractive to women: we test this hypothesis in the present study. Past studies indicate the DT has strong associations with the Big Five personality factors; consequently, it is possible that the increased attractiveness of these men may result not from their DT qualities, but from associated personality correlates. This is also examined.

Short-term mating is considered more evolutionarily adaptive for males than females, due to males' higher fitness variance and lower obligate parental investment (Buss & Schmitt, 1993). Although women may be prepared to engage in uncommitted mating where 'good genes' represent a trade-off for lack of investment (Gangestad, 1993), casual sexual encounters for women involve a number of potential costs (pregnancy; infection; physical injury) resulting in them typically being less predisposed, evolutionarily, to casual sexual congress than men.

Successful pursuit of short-term mating by men is largely dependent on their attractiveness to women. In short-term contexts, women (like men) place a high value on facial and bodily attractiveness (e.g. Van Dongen & Gangestad, 2011), and evidence suggests the DT and its constituent traits are associated with higher physical attractiveness (Holtzman & Strube, 2010; Visser, Pozzebon, Bogaert, & Ashton, 2010). However, less attention has been paid to the role of DT personality in attractiveness. Outside the laboratory, visual impressions are modified in light of further information, often derived from conversations with the target. In the present study, we therefore hold physicality constant to examine the extent to which women are attracted to the DT personality. We first review the component traits in relation to sex differences and men's mating strategy, before examining the DT itself.

Narcissism is defined by a sense of entitlement, dominance and a grandiose self-view (Raskin & Terry, 1988). Virtually all studies report greater narcissism in men, including cross-culturally (Foster, Campbell, & Twenge, 2003). Holtzman and Strube (2010) propose that narcissism emerged in response to problems posed by the adoption of a short-term mating strategy in men. Adaptive narcissistic solutions include a willingness and ability to compete with one's own sex, and to repel mates shortly after intercourse. Narcissists find it comparatively easy to begin new relationships, perceive multiple opportunities available to them, and are less likely to remain monogamous (Campbell & Foster, 2002; Campbell, Foster, & Finkel, 2002). Narcissistic men also have more illegitimate children than those scoring lower for the trait (Rowe, 1995). Campbell and Foster (2002) report that male narcissists groom and advertise wealth and resource provision in a manner attractive to women (Vazire, Naumann, Rentfrow, & Gosling, 2008). Perhaps as a consequence, other-rated levels of physical attractiveness are positively correlated with narcissism (Holtzman & Strube, 2012).

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Machiavellians are interpersonally duplicitous (McHoskey, 2001a), insincere (Christie & Geis, 1970) and extraverted (Allsopp, Eysenck, & Eysenck, 1991). Men score higher than women on Machiavellian traits (Lee & Ashton, 2005; McHoskey, 2001b). Machiavellianism is associated with social manipulation and opportunism, both beneficial to the pursuit of short-term mating. Machiavellians report a tendency towards promiscuous behaviours and love-feigning (McHoskey, 2001b). Machiavellian men also report more sexual partners (including affairs), earlier sexual activity, and are inclined towards sexual coercion (McHoskey, 2001b).

Psychopathy consists of callousness, a lack of empathy, and antisocial, erratic behaviour (Hare, 2003). Men show higher levels of sub-clinical psychopathy than women (Lee & Ashton, 2005). Reise and Wright (1996) propose that psychopathic traits (lack of morality; interpersonal hostility) are beneficial to a short-term strategy and are correlated with unrestricted pattern of sexual behaviour. Psychopathy is further associated with superficial charm, and a deceitful and sexually-exploitative interpersonal style (Paulhus & Williams, 2002). Psychopathy is significantly correlated with a larger number of self-reported sexual partners, long-term relationship breakdown, earlier age of first intercourse, and self- and female-rated physical attractiveness (Visser et al., 2010).

The Dark Triad is the collective term for these moderately intercorrelated, self-interested traits (Paulhus & Williams, 2002). Common to all three are extraverted behaviours likely to make a good first impression, such as a tendency to socialise and to talk about friends. All three overlap in exploitation, manipulation and self-importance (Lee & Ashton, 2005). Consistent with findings for the constituent traits, the composite Dark Triad is positively correlated with number of self-reported lifetime sex-partners, preference for an unrestricted, short-term mating style and high rates of mate-poaching (Jonason, Li, & Buss, 2010a; Jonason, Li, Webster, & Schmitt, 2009). It has been suggested that, for men, the Dark Triad "reflects an evolutionarily stable solution to the adaptive problem of reproduction" (Jonason et al., 2009, p. 13; see also Paulhus & Williams, 2002).

However, the majority of studies have employed self-report measures of the DT (or its components) and mating successes. Given the value attached to casual sexual experiences by young men in Western cultures, it is very possible that reported correlations reflect a tendency for DT men to over-report their success in this domain, commensurate with their high self-esteem and willingness to deceive. Studies which have used observer ratings of the DT components have focused exclusively on physical attractiveness (e.g. Holtzman & Strube, 2010). We therefore examine whether women find the Dark Triad *personality* attractive, independent of physical appearance.

Researchers have also considered how the DT may be conceptualised within existing personality frameworks – specifically, the Big Five (Lee & Ashton, 2005). It may be that the DT's attractiveness to women is a result of correlations with other personality traits, including the Big 5 dimensions. In short, women may simply find DT correlates attractive, rather than the DT itself. However, previous studies of correlations between Big Five scores and DT components do not suggest that the DT personality is a very attractive one. With regard to Agreeableness, evidence to date shows significant negative correlations with narcissism, Machiavellianism, and psychopathy (Jakobwitz & Egan, 2006) and the DT as a whole (Paulhus & Williams, 2002). Conscientiousness and Neuroticism are negatively correlated with the component traits and the DT as a whole (Jonason, Li, & Teicher, 2010b; Lee & Ashton, 2005; Lee et al., 2012), whilst Openness correlates positively with the DT (Jonason et al., 2010b; Paulhus & Williams, 2002). Extraversion is also positively correlated with the DT, narcissism and psychopathy, but less so with Machiavellianism (Jonason et al., 2010b; Lee & Ashton, 2005; Paulhus & Williams, 2002). These results are based upon self-reported psychometric assessments, whereas our study will assess the extent to which these correlated traits are apparent to others. It allows clarification of whether the attractiveness of DT men stems from observers' appraisals of the DT qualities themselves, or from correlated personality dimensions.

Vignettes have previously been used to examine the attractiveness of the three subcomponents of DT personalities (Rauthmann & Kolar, 2013). Participants read about an opposite-sex individual who scored highly on four items associated with narcissism, Machiavellianism or psychopathy on the 'Dirty Dozen' measure of the DT (Jonason & Webster, 2010). These bogus characters were rated for attractiveness, as well as perceived Big 5 scores. However, as the authors acknowledge, they do not present low-scoring characters, so their comparison of attractiveness (with higher scores for narcissism than Machiavellianism and psychopathy) is only between component traits. With no comparison character, there are also no manipulation checks to establish if their characters objectively manifest the intended traits, and no evaluation of whether perceived Big 5 traits affect attractiveness ratings.

If the Dark Triad has indeed evolved to facilitate short-term mating in men, their presence must be detectable by prospective mates, in some capacity. Individuals demonstrating the trait constellation should also be perceived as more attractive by women. In order to evaluate this hypothesis, the current study will present participants with one of two self-descriptions, developed to represent either a high DT or control individual. Participants will be asked to rate the personality for attractiveness. Participants will also rate the target individual on the Big Five personality factors to establish whether any enhancement in attractiveness rating remains when the effects of any Big Five correlates are removed. It is anticipated that women will rate the high DT individual as more attractive than the control character, that the results will support existing literature regarding the DT's relationship to other personality variables, and that higher attractiveness ratings for the DT character will be independent of associated variation in the Big Five traits.

2. Method

2.1. Participants

One hundred and twenty eight female undergraduates at a British university, (mean age, 19.4; range, 18–36) participated in the study, conducted via online questionnaire. Participants were given course credit for taking part.

2.2. Materials

Two self-descriptions were generated to represent high DT and control men. The high DT self-description contained manifestations of the trait descriptors that comprise Jonason & Webster, 2010 'Dirty Dozen' measure (a desire for attention, admiration, favours, and prestige; the manipulation, exploitation, deceit and flattery of others; a lack of remorse, morality concerns and sensitivity, and cynicism). The 'Dirty Dozen' is a concise, amalgamated version of the Narcissistic Personality Inventory (Raskin & Terry, 1988), Mach-IV (Christie & Geis, 1970) and Psychopathy Scale-III (Paulhus, Hemphill, & Hare, 2012). The control self-description was written to match that of the high DT while omitting these Dark Triad elements (references to pursuits and activities were kept consistent). In order to limit potential bias, the descriptions avoided making reference to attributes found to affect attractiveness ratings, such as resource ownership (Buss & Barnes, 1986) and educational level (Baize & Schroeder, 1995).

2.3. Procedure

After logging on, participants were presented with one of the two self-descriptions (DT or control). Presentation of stimuli was alternated between successive participants. All participants were then asked a series of questions, answered on a six-point Likert scale. The first pertained to the attractiveness of the individual's personality, with the following questions presented in randomised order. As a manipulation check, three questions asked participants to rate the target on narcissism ('Overvalues their own importance'), Machiavellianism ('Is manipulative'), and psychopathy ('Not sensitive to others' feelings'). Participants then rated the target on the Big Five dimensions as per the Five-Item Personality Inventory (FIPI; Gosling, Rentfrow, & Swann, 2003).

3. Results

3.1. Manipulation check

In order to establish that our experimental conditions (the DT and control characters) were sufficiently distinct and were perceived as accurate depictions of different personality types, t-tests were conducted on narcissism, Machiavellianism and psychopathy ratings. The results were significant ($t_{126} = 8.40$, $p < .001$, $d = 1.33$; $t_{126} = 10.91$, $p < .001$, $d = 1.73$; $t_{126} = 7.06$, $p < .001$, $d = 1.81$, respectively), with the DT character rated higher for each trait (see Table 1).

3.2. Attractiveness ratings and the Big 5

A t-test showed the high DT character was rated as significantly more attractive than the control character ($t_{126} = 5.40$, $p < .001$, $d = 0.94$) supporting our hypotheses (see Table 2). For the Big Five, t-tests showed the high DT character was rated as significantly lower on Conscientiousness ($t_{126} = -5.19$, $p < .001$, $d = 0.98$), Agreeableness ($t_{126} = -6.00$, $p < .001$, $d = -1.18$) and Neuroticism ($t_{126} = -9.48$, $p < .001$, $d = -1.74$), and significantly higher on Extraversion ($t_{126} = 7.99$, $p < .001$, $d = 1.34$). He was also rated lower for Openness ($t_{126} = -2.29$, $p = .03$, $d = -0.49$), although this did not survive Bonferroni correction for multiple tests ($p < .01$). The full correlation matrix can be seen in Table 3.

3.3. Structural modelling

Our experimental manipulation of the DT traits resulted in higher ratings of attractiveness for the high DT character compared with the control character. However, the manipulation also resulted in differences in ratings on the Big Five dimensions. The High DT character's greater attractiveness could therefore be the result of these correlated differences. Is there a significant increase in the attractiveness of the High DT character, even when the Big Five personality variables are controlled?

We used structural equation modelling to see if the DT manipulation was having an effect independent of the other five personality variables. First, we constructed the best possible model of the Big Five as mediating variables between experimental condition and the dependent variable of attractiveness. Including all five traits resulted in a poor fit ($X_{2,11} = 44.0$, CFI = .86). This was improved by removing Openness, Agreeableness, and Conscientiousness. Retaining Extraversion and Neuroticism gave a significantly better fit ($X_{2,9} = 34.6$, $p < .001$) with the following statistics: $X_{2,2} = 9.4$, CFI = .95. We then added a direct path between experimental condition and attractiveness (see Fig. 1); if condition has an effect on attractiveness independent of Neuroticism and Extraversion, the model fit indices should improve. We can also estimate the direct effect of DT condition when the effects of the two personality variables are controlled.

This model was significantly better ($X_{2,1} = 6.8$, $p < .001$) and had excellent fit indices ($X_{2,1} = 2.6$, CFI = .99). As Fig. 1 shows, both Extraversion and Neuroticism are strongly affected by experimental condition, but their impact on attractiveness ratings is modest and non-significant. Standardised regression weights confirm the

Table 1
Descriptive statistics for ratings.

Condition	Narcissism		Machiavellianism		Psychopathy	
	Mean	SD	Mean	SD	Mean	SD
High DT	3.67	1.27	4.56	1.12	3.78	1.43
Low DT	2.17	1.13	2.08	1.43	1.97	1.00
All	2.91	1.41	3.29	1.79	2.87	1.53

Table 2
Descriptive statistics for Attractiveness and Big 5 ratings.

Condition	Attractiveness		Openness		Conscientiousness		Neuroticism		Agreeableness		Extraversion	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
High DT	4.44	1.17	3.27	1.42	3.33	1.19	2.14	1.13	2.81	1.29	4.32	1.13
Low DT	3.34	1.17	3.77	1.03	4.43	1.12	3.97	1.05	4.06	1.06	2.62	1.27
All	3.88	1.29	3.52	1.25	3.89	1.31	3.07	1.42	3.45	1.33	3.45	1.47

Table 3
Correlations between the Dark Triad and perceptions of the Big 5.

	1	2	3	4	5	6	7	8	9	10
Dark Triad	–	.83**	.85**	.85**	.37**	.04	−.38**	−.57**	−.29**	.69**
Narcissism		–	.53**	.63**	.28**	.20*	−.34**	−.42**	−.23*	.57**
Machiavellianism			–	.55**	.32**	−.17	−.34**	−.47**	−.39**	.66**
Psychopathy				–	.38**	.12	−.29**	−.56**	−.08	.49**
Attractiveness					–	.01	−.17	−.35**	−.04	.33**
Openness						–	.05	.02	.28**	.05
Conscientiousness							–	.32**	.40**	−.23*
Neuroticism								–	.42**	−.46**
Agreeableness									–	−.18*
Extraversion										–

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

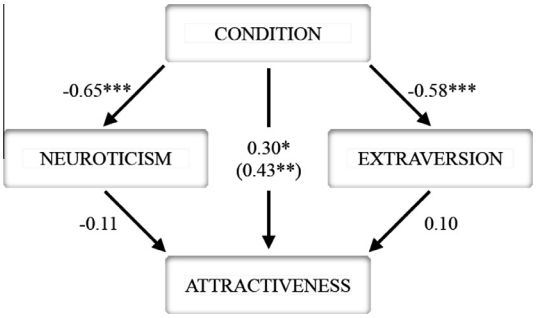

Fig. 1. Structural model of the Dark Triad-Attractiveness relationship.

significant effect of DT condition on attractiveness remains, independent of indirect effects through Neuroticism and Extraversion. The total effect of DT condition on attractiveness ($\beta = .43$, $p < .001$) remained significant ($\beta = .30$, $p = .02$) after partial mediation by Extraversion and Neuroticism.

We repeated the above analysis using the average of the participant's ratings of the three DT qualities in place of experimental condition. Once again, the fit was excellent ($X_{2,1} = 1.68$, CFI = 1). In this case, the indirect effects were stronger ($\beta = .19$ compared with $\beta = .13$) so the direct effect of DT on attractiveness after controlling for Extraversion and Neuroticism was weaker ($\beta = .19$). Nonetheless, both analyses indicate that the DT has a significant effect on attractiveness, independent of its effects on Big Five traits.

4. Discussion

No previous studies, to our knowledge, have considered the attractiveness of the Dark Triad personality constellation to the other sex. Past research has demonstrated that the DT is associated with self-reported mating success and increased number of sexual partners; however, these findings are subject to the criticism that the association is an artefact of DT individuals' proneness to deceit; narcissists, in particular, over-claim (Paulhus & Williams, 2002). Our results, though, demonstrate that the DT personality is indeed attractive to women.

The results of our study are also largely in keeping with attempts to map the Dark Triad on to the Big Five traits – albeit through observers' perception of the Dark Triad personality rather than psychometric self-report. All three components have repeatedly been found to correlate negatively with self-reported Agreeableness (e.g. Jonason et al., 2009); in the present study, women rated the DT individual as less Agreeable than the control character. While this may seem to mitigate attractiveness, low Agreeableness has been found to correlate with higher levels of casual sex for both men and women (Trapnell & Meston, 1996). Women also perceived the Dark Triad character as lower in Conscientiousness and Neuroticism, and higher in Extraversion than the control, echoing similar findings from self-reported studies (Jakobwitz & Egan, 2006; Jonason et al., 2010b; Lee & Ashton, 2005; Paulhus & Williams, 2002).

The structural equation model makes it clear that the DT personality's attractiveness is not explicable solely in terms of associated Big Five trait perceptions. Although DT men are perceived as lower in Neuroticism and higher in Extraversion – and these qualities do explain a significant proportion of their rated attractiveness – other factors beyond these must be at work. What, then, explains the Dark Triad's attractiveness? There are at least two possibilities. A *sexual selection* explanation suggests women are responding to some indicator of male quality. Women, particularly in respect of short-term mating, may be attracted to 'bad boys', possessing confidence, hard-headedness and an inclination to risk-take – all accurate descriptors of Dark Triad men; all attractive to women (Bassett & Moss, 2004; Hall & Benning, 2006).

A second explanation derives from a *sexual conflict* perspective (Chapman, Arnqvist, Bangham, & Rowe, 2003). Women may be responding to DT men's ability to 'sell themselves'; a useful tactic in a co-evolutionary 'arms race' in which men convince women to pursue the former's preferred sexual strategy. This ability may derive from a 'used-car dealer' ability to charm and manipulate, and DT-associated traits such as assertiveness (Petrides, Vernon, Schermer, & Veselka, 2011). Men with a DT personality are undoubtedly well-placed to successfully implement such a strategy. The greater latitude in men with regard to parental investment is reflected in their greater variance in sexually-selected morphological and behavioural traits (Archer & Mehdikhani, 2003).

We note that in animal research, others have highlighted the difficulty of disentangling the female choice and sexual conflict proposals of mate preferences (Arnqvist & Rowe, 2005). A female preference may be an evolved contingent choice that enhances her reproductive success, or it may be the result of exploitation by males in the evolutionary time lag before females have evolved a response. In either case, we are not asserting that female respondents who rated the DT character as attractive would necessarily be willing to engage in sex with them. However, our findings do indicate that the DT personality is attractive to our participants. This in turn supports previous work that has suggested DT men are more sexually successful.

We acknowledge limitations in the present study. Participants were all undergraduate students, a youthful population more short-term in their relationship orientation. We have assumed that the current sample viewed our characters with a primarily short-term perspective, but this conclusion should be supported by follow-up work. Replication with a community sample would be valuable, as would assessment of the characters' appeal as short- versus long-term mates. We did not enquire whether our participants were currently engaged in relationships, nor did we assess their sociosexual orientation. These and other variables associated with the status of respondent could be usefully pursued in future work. Women low in Agreeableness are more likely to engage in casual sex than Agreeable women (Trapnell & Meston, 1996), and may recognise – and find attractive – DT men. The menstrual cycle may also increase the attractiveness of DT individuals, given its documented effect on the short-term mating preferences of women (e.g. Gangestad, Garver-Apgar, Simpson, & Cousins, 2007).

Regarding our characters, our DT character manifested all the points of Jonason & Webster, 2010 'Dirty Dozen' prototype whilst the control character manifests none of them. In the population at large, individuals vary not only along a DT continuum, but also in the relative weighting of the DT subcomponents. Previous research has reported that the relationship between the DT component traits is complex, with varying degrees of correlation between them, ranging from non-significance ($r = .17$ between narcissism and Machiavellianism; Lee & Ashton, 2005) to very strong ($r = .70$ between psychopathy and Machiavellianism; Jakobwitz & Egan, 2006). This suggests a complicated, variable intertwining of the components. A design manipulating a range of DT subcomponent weightings would be useful. Real-world choices, such as dating websites or personal advertisements (which could be assessed for DT indicators) would also be valuable. A speed-dating study, examining women's responses to high and low DT men, could provide valuable behavioural data.

5. Conclusion

In conclusion, the results of our study demonstrate that the Dark Triad male personality is attractive to women and this effect

is not mediated by these men's greater perceived Extraversion or Neuroticism. Further work in the sexual marketplace could usefully pursue interactions (statistical and social) between sellers (Dark Triad men) and buyers (women). Regarding the former, does their attractiveness reside in female choice, or in their capacity to persuade and manipulate? For the latter, does the appeal of Dark Triad charm extend to only a subset of women?

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