

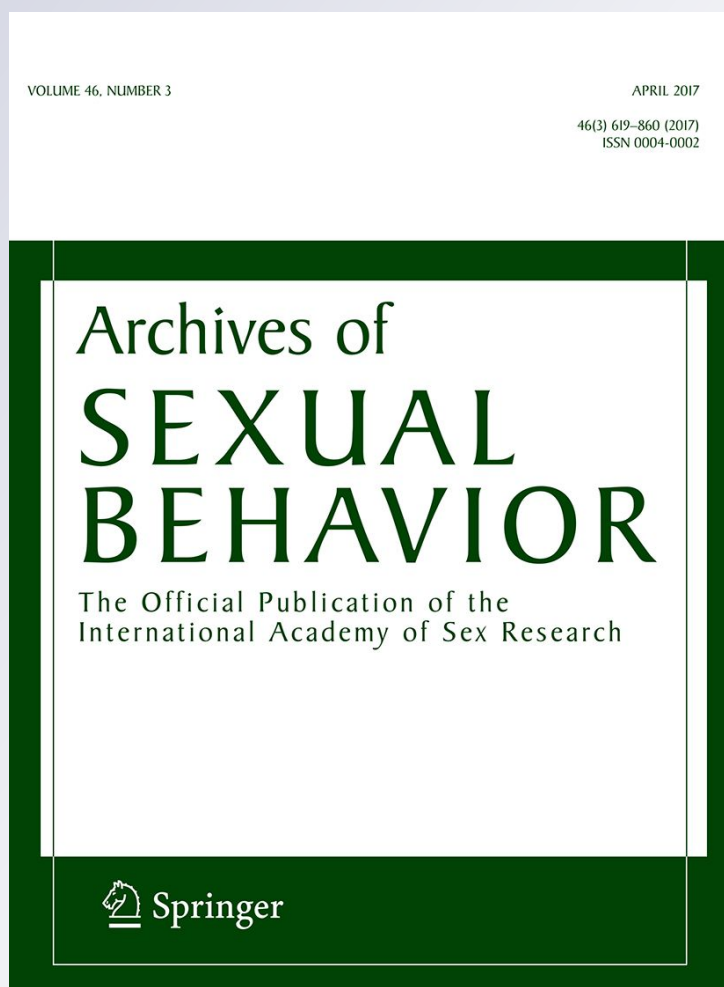
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# The Exploitive Mating Strategy of the Dark Triad Traits: Tests of Rape-Enabling Attitudes

Peter K. Jonason<sup>1</sup> · Mary Girgis<sup>2</sup> · Josephine Milne-Home<sup>1</sup>

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**Abstract** The Dark Triad traits have been repeatedly labeled as facilitating an exploitive mating strategy. However, various researchers have repeatedly conflated short-term mating or casual sex with an exploitive mating strategy. In this study using Mechanical Turk participants ( $N = 252$ ; 142 men, 110 women), we provided a better test of just how sexually exploitive those high on the Dark Triad traits might be by examining how the traits related to rape-enabling attitudes. We examined how each trait may facilitate rape, whether these associations were robust to partialing the variance associated with the Big Five traits and similar in men and women, and showed that one reason why men may be more likely to rape than women is they are characterized by the Dark Triad traits more than women are. In so doing, we test the confluence model of rape that asserts that personality traits similar to the Dark Triad traits act as one pathway to rape.

**Keywords** Narcissism · Machiavellianism · Psychopathy · Dark Triad · Sex differences · Rape

## Introduction

For years, the personality psychology landscape has been dominated by the Big Five traits (i.e., extraversion, agreeableness, neuroticism, conscientiousness, and openness or intellect; Costa & McCrae, 1995). While still important in understanding sweeping aspects of personality, the taxonomy may fall short in its abil-

ity to tap some of the “darker” and less socially desirable aspects of interindividual differences. One stream of research that has been quickly gaining momentum and addressing this theoretical and empirical gap is the work on the Dark Triad traits (Furnham, Richards, & Paulhus, 2013). The Dark Triad traits are characterized by vanity and self-centeredness (i.e., narcissism), manipulation and cynicism (i.e., Machiavellianism), and callous social attitudes and impulsivity (i.e., psychopathy). The traits have implications for organizational psychology, social psychology, and clinical psychology and may have implications for sex research, which we explore here. In this study, we are interested in the relationships between the Dark Triad traits and rape-enabling attitudes, whether sex differences in such attitudes might be accounted for by the Dark Triad traits, and whether the shared or unique variance in the Dark Triad traits is correlated with latent rape-enabling attitudes. Doing so will advance our understanding of both the Dark Triad traits but also the distal (as opposed to proximal traits like sociosexuality) personality predictors of rape.

One reason for the momentum these traits have garnered stems from their integration into an evolutionary or adaptationist paradigm (Carter, Campbell, & Muncer, 2014; Jonason, Jones, & Lyons, 2013a). One important claim to come out of this paradigm is that the Dark Triad traits facilitate an exploitive mating strategy (Jonason, Li, Webster, & Schmitt, 2009; Jonason, Valentine, Li, & Harbeson, 2011b). These traits may be partly responsible for the successful sexual exploitation of others through deception in mating contexts (Jonason, Lyons, Baughman, & Vernon, 2014), a manipulative social style (Jonason & Webster, 2012), interpersonal aggression (Jones & Olderbak, 2014), “deviant” sexual fantasies (Baughman, Jonason, Veselka, & Vernon, 2014), and limited empathy (Jonason, Lyons, Bethell, & Ross, 2013c), all of which may facilitate rape. Indeed, narcissism is associated with the acceptance of rape myths (Bushman, Bonacci, Van Dijk, & Baumeister, 2003; Hepper, Hart, Meek, Cisek, & Sedikides, 2014), psychopathy is associated with sexual coercion (Figueredo, Glad-

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den, Sisco, Patch, & Jones, 2015; Jonason, 2015) and sexually “predatory” behavior (O’Connell & Marcus, 2016), and the confluence model of rape (Malamuth, Heavey, & Linz, 1993; Malamuth, Linz, Heavey, Barnes, & Acker, 1995; Malamuth, Sockloskie, Koss, & Tanaka, 1991) suggests there are two paths to rape and sexual aggression—*hostile masculinity* and *impersonal sex*—which are commonly linked to the Dark Triad traits (Adams, Luévano, & Jonason, 2014; Jonason, Li, & Czarna, 2013b; O’Connell & Marcus, 2016).

We would contend that those making the case for this exploitive mating strategy have conflated “short-term mating” with “exploitive” where rape is *the* ostensible form of exploitive mating (Ellis, 1991; Palmer, 1991; Thornhill & Palmer, 2000). This is not an uncommon mistake. Short-term mating has traditionally been pathologized in the literature, in diagnostic tools, and in the media (Fortenberry, 2003). For instance, social psychologists often treat casual sex as an implicit pathology, attempting to link it to dysfunctions in attachment systems (Sprecher, 2013), links that appear to be extremely tenuous at best (Schmitt & Jonason, 2015). As such, we wish to provide a more rigorous and direct test of the exploitive mating hypotheses related to the Dark Triad traits. In particular, we examine the associations between the Dark Triad traits and empathy toward victims, empathy toward perpetrators, and rape myth acceptance.

## The Current Study

In this study, we treat the Dark Triad traits as distal predictors that shape the value systems and attitudes (Kajonius, Persson, & Jonason, 2015) that people hold and these attitudes will then predict behaviors like rape (Lonsway & Fitzgerald, 1995) as they predict risk-taking, drug use, and future-discounting (Jonason, Koenig, & Tost, 2010). However, each trait has unique psychosocial outcomes and correlates (Furnham et al., 2013). Therefore, while we expect the Dark Triad traits to be related to rape-enabling attitudes, we briefly make predictions for each. First, Machiavellianism appears to be of little use in predicting mating-related behaviors when in concert with the other two traits (Jonason, Luévano, & Adams, 2012), and, thus, we predict it will play a minor role in predicting rape-related attitudes.<sup>1</sup> Psychopathy may be the darkest trait of the group (Rauthmann & Kolar, 2012), with its characteristically compromised morality and antisocial tendencies; thus, we expect it to stand out as the main hub of the associations between the Dark Triad traits and rape-enabling attitudes. The commission of rape comes with serious interpersonal consequences but those high on psychopathy appear to be rather immune to context-effects in social behavior (Jonason & Webster, 2012). And last, although narcissism has been linked to rape-enabling attitudes in prior

studies (Bushman et al., 2003), we expect it to no longer matter after the shared variance is accounted for (Jonason, 2015). Importantly, narcissism appears to be associated with somewhat different value systems and social strategies than psychopathy (Jonason, Duineveld, & Middleton, 2015; Kajonius et al., 2015), ones that may facilitate social connections that would be compromised by the commission of the overtly exploitive mating strategy of rape.

Men and women’s mating strategies differ as a function of the investment in the relationship and offspring (Buss & Schmitt, 1993). Rape could be considered an extreme case of short-term mating, and it is in this context the sexes differ the most in what they want in their mates and their willingness to engage in such behavior. For instance, when approached by a stranger, few women agree to have sex but nearly 75% of men acquiesce (Clark & Hatfield, 1989), effects that may be moderated by the attractiveness of the one making the request in real-life interactions (Guéguen, 2011). Prior research suggests the Dark Triad traits might facilitate a short-term mating strategy in men (Jonason et al., 2009, 2011b). Moreover, sexually coercive male chimpanzees sire more offspring (Feldblum et al., 2014) and the Dark Triad traits are associated with sexual coercion (Figueredo et al., 2015; Jonason, 2015; O’Connell & Marcus, 2016). This may be because of the asymmetries in engaging in a *fast* life strategy (Buss & Duntley, 2006; Daly & Wilson, 1988, 1996). If the traits also facilitate rape as a mating strategy in men, then sex differences in rape-enabling attitudes (Bohner et al., 1998) should be mediated (i.e., partially accounted for) by sex differences in the Dark Triad traits, and if our predictions from the above are correct, mostly by psychopathy.<sup>2</sup> Said another way, it is not that men are all rapists or even predisposed to be so; it is just those men who have a mating strategy based on the exploitation of sexual opportunities who do so.

Above, we have focused on predictions regarding each trait. However, doing so might be flawed for a number of reasons. First, in the real world, the Dark Triad traits are likely to co-occur in individuals (Paulhus & Williams, 2002) and, therefore, isolating (e.g., by using multiple regression) the effects for each trait lacks ecological validity. Second, the removal of the shared variance may be obscuring the important relationships because after the shared variance among the traits is accounted for, all that is left over to be explained are shadows of the traits’ former selves. Third, as the claim is that the Dark Triad traits are a coordinated system of adaptations for exploitation (Jonason et al., 2009; Jonason & Webster, 2012), it is the shared variance that is of interest, not the unshared variance. In order to address this, we compare three structural equation models (Figueredo et al., 2015; Jonason, Kavanagh, Webster, & Fitzgerald, 2011a; Kavanagh, Signal, & Taylor, 2013). We examine the decrease in fit between a model that allows the Dark Triad traits and a latent measure of the Dark Triad traits to predict

<sup>1</sup> So long as one accepts the premise that rape is a mating strategy as opposed to an aberration (Palmer, 1991). Evolutionary psychologists and biologists have identified that in some instances and in some species forced copulation can have reproductive returns (Bondar, 2015). Pregnancy from rape hovers around 5% (Holmes, Resnick, Kilpatrick, & Best, 1996).

<sup>2</sup> We do not make moderation-by-participant’s sex predictions because downstream outcomes like rape-enabling attitudes should be predicted by the same traits as in men as the core personality features remain the same. The lacking empathy, callousness, and cruelty found in these traits should be associated with the same outcomes in men and women.

individual differences in rape-enabling attitudes with a model that is composed with only one of the former factors. We predict that the model that includes no direct links between the traits themselves and rape-enabling attitudes, leaving the link to be isolated to the latent Dark Triad, will fit the data best and will make the most theoretical sense. Such a model would be consistent with work on sexual coercion (Figueredo et al., 2015) and evolutionary personality psychologists' contention that these traits act as a coordinated system enabling reproductive fitness.

Just how exploitive is the mating strategy associated with the Dark Triad traits? Various researchers have repeatedly conflated "exploitive" with "short-term" mating (e.g., Jonason et al., 2009). To improve on this, we present data from American (MTurk) adults where we expect the Dark Triad traits—psychopathy in particular—to be associated with rape-enabling attitudes and expect these associations to be robust to the partialing of variance associated with the Big Five traits (Voller & Long, 2009). In so doing, we expand knowledge on the Dark Triad traits and predictors of rape.

## Method

### Participants and Procedure

American participants ( $N = 252$ ; 142 men), aged 18–68 years ( $M = 31.98$ ,  $SD = 10.44$ ), were paid US\$1 for the completion of a 15-min study on Amazon's Mechanical Turk (i.e., MTurk). Only those participants from unique IP addresses were included to avoid violating the assumption of independence, and only those participants who completed all the questions were included to address any concerns regarding missing data (we removed 51 participants not included in the description above). The participants identified themselves as Caucasian (70.6%), Asian (12.3%), Hispanic (8.3%), and African-American (7.1%). The participants were told that the study was about personality and social attitudes (rape was not mentioned specifically) and completed four self-report measures (in the order listed below), provided their demographic details, and were then debriefed.

### Measures

The Big Five personality dimensions were measured using the 20-item short International Personality Item Pool (Donnellan, Oswald, Baird, & Lucas, 2006). The participants were asked the degree to which they agreed (1 = *very inaccurate*; 5 = *very accurate*) with statements like: "Have a vivid imagination" (openness), "Get chores done right away" (conscientiousness), "I am the life of the party" (extraversion), "Sympathize with others' feelings" (agreeableness), and "Have frequent mood swings" (neuroticism). Items were averaged to create composites of openness (Cronbach's  $\alpha = .79$ ), conscientiousness ( $\alpha = .54$ ),<sup>3</sup> extraversion ( $\alpha = .85$ ), agreeableness ( $\alpha = .82$ ), and neuroticism ( $\alpha = .81$ ).

The Dark Triad traits were measured using the 27-item Short Dark Triad scale (Jones & Paulhus, 2014). The participants were asked the degree to which they agreed (1 = *disagree strongly*; 5 = *agree strongly*) with statements like: "I'll say anything to get what I want" (psychopathy), "I insist on getting the respect I deserve" (narcissism), and "It's not wise to tell your secrets" (Machiavellianism). Items were averaged to create indexes for psychopathy ( $\alpha = .81$ ), narcissism ( $\alpha = .78$ ), and Machiavellianism ( $\alpha = .82$ ).

Rape myth acceptance was measured using the Updated Illinois Rape Myth Acceptance Scale, which consists of 22 items divided into four subsets (McMahon & Farmer, 2011). We selected the five items that loaded the best in factor analysis (as reported in McMahon & Farmer, 2011) because of the sensitive nature of the topic and to reduce participant fatigue. The participants were asked the degree to which they agreed (1 = *disagree strongly*; 5 = *agree strongly*) with the following statements: "A lot of times, individuals who claim they were raped have emotional problems (i.e., she lied)," "If an individual doesn't physically fight back, you can't really say it was rape (i.e., it wasn't really rape)," "When girls go to parties wearing slutty clothes, they are asking for trouble (i.e., she was asking for it)," and "Rape happens when a guy's sex drive goes out of control (i.e., he didn't mean it)." Items were averaged to create an index of rape myth acceptance ( $\alpha = .81$ ).

Rape empathy was measured using two scales: Rape Victim Empathy Scale and Rape Perpetrator Empathy Scale (Smith & Frieze, 2003). Both scales contained 20 items, but again we only used the five items that loaded best on each scale from the factor analysis reported previously (Smith & Frieze, 2003). Participants were asked the degree to which they agreed (1 = *disagree strongly*; 5 = *agree strongly*) to statements such as "I can understand how helpless a rape victim might feel" (i.e., victim empathy) and "I can understand a rapist's feelings after a rape" (i.e., perpetrator empathy). We averaged items to create indexes of victim empathy ( $\alpha = .85$ ) and perpetrator empathy ( $\alpha = .79$ ).

## Results

### Basic Analyses

First, we tested for sex differences (Table 1). Men scored higher than women did on psychopathy, Machiavellianism, rape myth acceptance, and empathy for the rapist; however, they scored lower on empathy for the survivor. Rape myth acceptance was correlated with lack of empathy for the survivor,  $r(250) = -.43$ ,  $p < .01$ , and empathy for the rapist,  $r(250) = .30$ ,  $p < .01$ . Lack of empathy for the survivor was not correlated with empathy for the rapist. Men,

<sup>3</sup> While low, it is understandable given that the IPIP measure of Big Five traits assesses broadband traits with only four indicators. Given that this is only included to test for incremental validity above the Big Five traits by the Dark Triad traits, this should not be a major concern.



**Table 1** Descriptive statistics and sex differences for the Dark Triad traits and rape-enabling attitudes

	Men M (SD)	Women M (SD)	<i>t</i>	<i>d</i>
Psychopathy	22.40 (5.18)	20.20 (5.44)	3.28*	0.41
Narcissism	24.15 (3.71)	24.16 (3.27)	<1	0.00
Machiavellianism	36.19 (6.72)	33.01 (6.73)	3.73*	0.47
Rape myth acceptance	10.61 (3.85)	8.05 (3.06)	5.87*	0.74
Rape survivor empathy	18.32 (3.98)	21.66 (3.01)	−7.33*	0.95
Rape perpetrator empathy	14.21 (3.91)	13.06 (4.46)	2.14*	0.27

*d* is Cohen's *d* for effect size; 142 men, 110 women; absolute range for Dark Traits = 9–54; for RMA = 9–54; for RSE/RPE = 20–100; effect sizes calculated using the calculator at [www.uccs.edu/~lbecker/](http://www.uccs.edu/~lbecker/)

\*  $p < .05$ ; \*\*  $p < .01$

$r = .16$ , and women,  $r = .31$ ,  $p < .01$ , did not differ, Fisher's  $z = -1.24$ , in the degree to which rape myth acceptance and empathy for the victim were correlated. Empathy for the perpetrator and the victim were correlated in men,  $r = .22$ ,  $p < .01$ , but not in women,  $r = -.07$ , which was a significant difference,  $z = 2.28$ ,  $p < .01$ . The correlation between victim empathy and rape myth acceptances was more strongly,  $z = 1.96$ ,  $p < .05$ , correlated in women,  $r = -.46$ ,  $p < .01$ , than in men,  $r = -.24$ ,  $p < .01$ .

Second, we correlated the Dark Triad traits with rape-enabling attitudes. We also used multiple regression to control for shared variance among the Dark Triad traits (Table 2). Psychopathy and Machiavellianism were associated with rape myth acceptance, lack of empathy for the survivor, and empathy for the rapist (one at a time). Narcissism was associated with rape myth acceptance and empathy for the rapist. Using Fisher's  $z$  tests to compare independent correlations, we compared the correlations above in men and women and found no evidence for moderation ( $|z|s = 0.07-1.55$ ).<sup>4</sup>

In order to test the incremental variance accounted for by the Dark Triad traits, we used hierarchical multiple regression for each rape measure independently (i.e., three tests) and with all of the Big Five traits in Step 1 and all of the Dark Triad traits in Step 2. The Dark Triad traits accounted for 8.7% ( $R = .57$ ,  $p < .01$ ) more variance in rape myth acceptance, 2.8% ( $R = .32$ ,  $p < .01$ ) more variance in victim empathy, and 3.3% ( $R = .37$ ,  $p < .05$ ) more variance in perpetrator empathy. These effects were primarily found in psychopathy (not so much for narcissism and Machiavellianism) and in regard to rape myth acceptance and victim empathy (not so much for perpetrator empathy).

### Mediation Analyses

In order to test whether sex differences in rape-enabling attitudes might be accounted for (i.e., mediated) by sex differences in the Dark Triad traits, we used the Baron and Kenny (1986) approach to mediation given that we had reasonably normal data and a

sufficiently large sample size (Fritz, Kenny, & MacKinnon, 2014) and bootstrapping with 5000 samples (see Table 3). We tested each Dark Triad trait and measure of rape-enabling attitudes independently. Evidence was found for two instances of full mediation. Psychopathy mediated the relationship between sex and empathy for the rapist,  $\Delta R^2 = .05$ ,  $F(2, 249) = 7.11$ ,  $p < .01$ , as the direct path between sex and empathy for the rapist,  $\beta = -.14$ ,  $t = -2.17$ ,  $p < .05$ , became nonsignificant when psychopathy was added,  $\beta = -.10$ ,  $t = -1.54$ ,  $p = .12$ . Machiavellianism also mediated the relationship between sex and empathy for the rapist,  $\Delta R^2 = .05$ ,  $F(2, 249) = 6.17$ ,  $p < .01$ , as the direct path,  $\beta = -.14$ ,  $t = -2.17$ ,  $p < .05$ , became nonsignificant when Machiavellianism was added,  $\beta = -.10$ ,  $t = -1.52$ ,  $p = .13$ .

Three cases of partial mediations were also found. Psychopathy partially mediated the relationship between sex and empathy for the survivor,  $\Delta R^2 = .20$ ,  $F(2, 249) = 30.22$ ,  $p < .01$ , as the direct path,  $\beta = .42$ ,  $t = 7.33$ ,  $p < .01$ , remained significant when psychopathy was added,  $\beta = .39$ ,  $t = 6.76$ ,  $p < .01$ . Psychopathy also partially mediated the relationship between sex and rape myth acceptance,  $\Delta R^2 = .25$ ,  $F(2, 249) = 42.18$ ,  $p < .01$ , as the direct path,  $\beta = -.34$ ,  $t = -5.71$ ,  $p < .01$ , remained significant when psychopathy was added,  $\beta = -.26$ ,  $t = -4.69$ ,  $p < .01$ . Lastly, Machiavellianism partially mediated the relationship between sex and rape myth acceptance,  $\Delta R^2 = .16$ ,  $F(2, 249) = 22.93$ ,  $p < .01$ , as the direct path between sex and rape myth acceptance,  $\beta = -.34$ ,  $t = -5.71$ ,  $p < .01$ , remained significant when Machiavellianism was added,  $\beta = -.29$ ,  $t = -4.88$ ,  $p < .01$ .

### Structural Equation Modeling

In order compare the relative contribution of each Dark Triad traits and the shared variance among them in accounting for rape-enabling attitudes, we compared three potential models (reporting standardized path coefficients). Figure 1 is a model where the individual Dark Triad traits and the latent Dark Triad predict latent rape attitudes. Figure 2 depicts a model where just the individual traits are used to predict the latent rape attitudes, a model that resembles the multiple regression

<sup>4</sup> Full details are available upon request.

**Table 2** Zero-order correlations and standardized regression weights using the Dark Triad traits to predict rape-enabling attitudes

	<i>r</i> ( $\beta$ )		
	Psychopathy	Narcissism	Machiavellianism
Rape myth acceptance	.42** (.37*)	.18** (.05)	.28** (.07)
Rape survivor empathy	-.24** (-.25*)	-.02 (.06)	-.13* (-.01)
Rape perpetrator empathy	.23** (.15*)	.14* (.07)	.20** (.10)

Equivalent in men and women using the calculator for the Fisher's *z* test found on [www.quantpsy.org/corrttest/corrttest.htm](http://www.quantpsy.org/corrttest/corrttest.htm); three multiple regressions were run here for each of the rape-enabling attitudes with all three of the Dark Triad traits entered simultaneously

\*  $p < .05$ ; \*\*  $p < .01$

**Table 3** Summary of tests for bootstrapped mediation tests of sex differences in rape-enabling attitude by the Dark Triad traits

	Rape myth acceptance	Empathy for perpetrator	Empathy for victim
<b>Machiavellianism</b>			
Step 1			
<i>R</i>	.12*	.14*	.42**
Bootstrapped B [95% CI]	-2.56 [-3.42, -1.69]	-1.15 [7.70, 14.74]	3.34 [2.44, 4.20]
Step 2			
<i>R</i>	.16*	.22**	.42**
Bootstrapped B [95% CI]	-2.20 [-3.09, -1.31]	-0.81 [-1.86, 0.28]	3.30 [2.41, 4.16]
<b>Narcissism</b>			
Step 1			
<i>R</i>	.34**	.14*	.42**
Bootstrapped B [95% CI]	-2.56 [-3.43, -1.69]	-1.15 [-2.19, -0.11]	3.34 [2.45, 4.19]
Step 2			
<i>R</i>	.40**	.21**	.42**
Bootstrapped B [95% CI]	-2.56 [-3.39, 1.70]	-1.15 [-2.18, -0.12]	3.34 [2.45, 4.20]
<b>Psychopathy</b>			
Step 1			
<i>R</i>	.34**	.14*	.42**
Bootstrapped B [95% CI]	-2.56 [-3.41, -1.71]	-1.15 [-2.18, -0.11]	3.34 [2.50, 4.20]
Step 2			
<i>R</i>	.50**	.23**	.44**
Bootstrapped B [95% CI]	-1.98 [-2.80, -1.15]	-0.82 [-1.84, 0.23]	3.12 [2.25, 4.00]

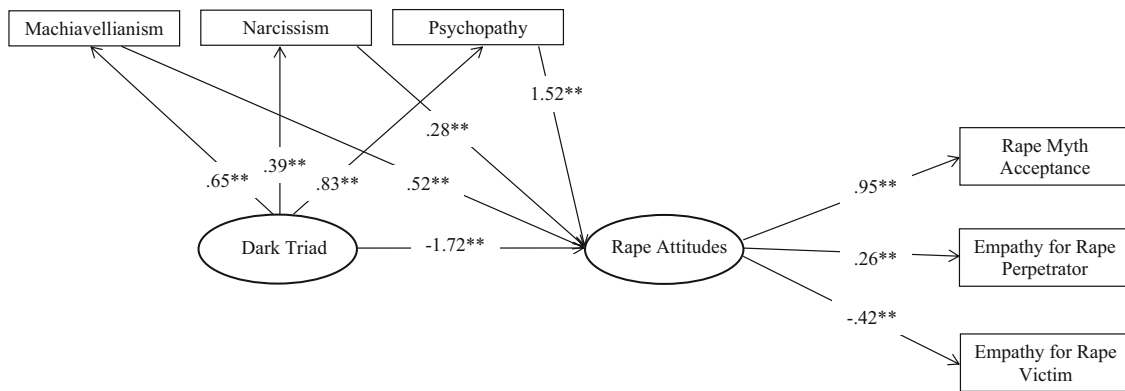
Bootstrap mediation with 5000 samples; effects refer to participant's sex only

\*  $p < .05$ ; \*\*  $p < .01$

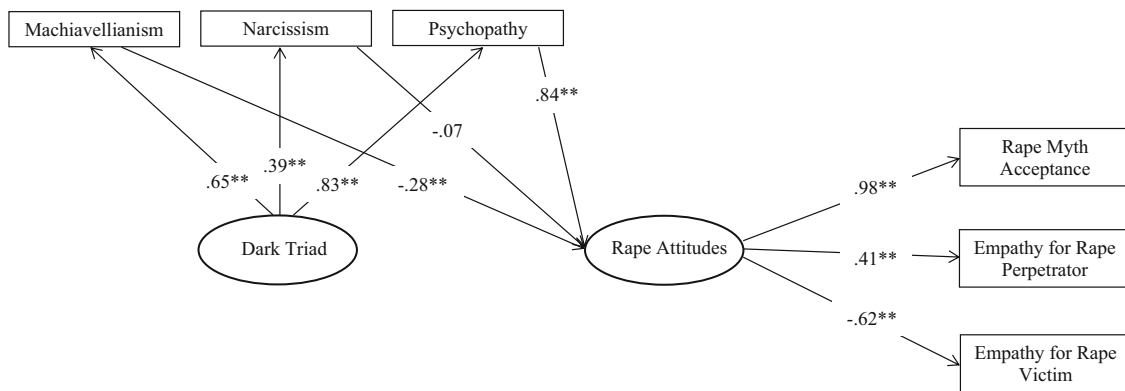
results reported in Table 2. In Fig. 3, we present a model where only the latent Dark Triad predicts latent rape attitudes, a model that assesses how well the collective variance in the Dark Triad traits predicts rape attitudes. Figure 3 represents the best and most sensible fit for the data overall, better than Fig. 2 ( $\Delta\chi^2 = 113.74, p < .01$ ) and similar to Fig. 1 ( $\Delta\chi^2 = 1.88$ ). While its fit was only slightly better than Fig. 1 (2 of 3 fit indexes), some of the standardized path coefficients in Fig. 1 were nonsensical and may be the result of correlated errors (Trafimow, 2003) or that once the shared variance in each trait is removed, what is left over no longer resembles the original construct each is attempting to measure.

## Discussion

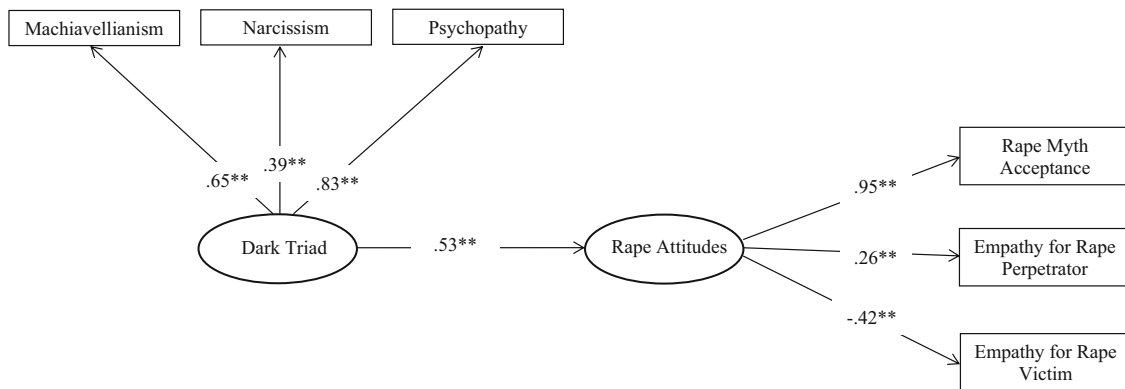
Most evolutionary psychologists (e.g., Ellis, 1991; Palmer, 1991; Thornhill & Palmer, 2000) and feminist scholars (e.g., Aronowitz, Lambert, & Davidoff, 2012; Bohner et al., 1998; Brownmiller, 1975; Donat & D'Emilio, 1992; Lea, 2007; Tyler, 2008) would agree that rape is an extreme form of exploitive mating. Where they would disagree is why people, men in particular, rape in the first place. For instance, a popular idea is that the cause of rape is a culture that endorses rape, also called a *rape culture* (Doherty & Anderson, 1998; Sanday, 1981, 2003; Sommers, 1995). However, recent work in behavioral genetics suggests that people do not



**Fig. 1** Structural equation model where the Dark Triad traits and the latent Dark Triad were allowed to predict latent rape-enabling attitudes.  $\chi^2(7) = 15.97, p < .05, \chi^2/df = 2.28, CFI = .96, RMSEA = .07$  (90% CI .02, .12),  $p$  closeness = .19. \* $p < .05$ ; \*\* $p < .01$



**Fig. 2** Structural equation model where only the Dark Triad traits were allowed to predict latent rape-enabling attitudes.  $\chi^2(8) = 131.59, p < .01, \chi^2/df = 22.70, CFI = .24, RMSEA = .29$  (90% CI .26, .23),  $p$  closeness = .01. \* $p < .05$ ; \*\* $p < .01$



**Fig. 3** Structural equation model where only the latent Dark Triad was allowed to predict latent rape-enabling attitudes.  $\chi^2(9) = 17.85, p < .05, \chi^2/df = 1.98, CFI = .96, RMSEA = .06$  (90% CI .02, .11),  $p$  closeness = .27. \* $p < .05$ ; \*\* $p < .01$

learn that rape is acceptable so much as they inherit genetic dispositions that facilitate rape (Barnes, TenEyck, Boutwell, & Beaver, 2013; Långström, Babchishin, Fazel, Lichtenstein, & Frisell, 2015) and sexual coercion is associated with more offspring in our closest living relatives, chimpanzee (*Pan troglodytes*; Feldblum et al., 2014). Therefore, what may be more likely is an interplay of predetermined factors like personality traits and contextual factors

that may come together to predict rape but without these preexisting dispositions: Rape is unlikely because the person lacks the predisposition for such exploitive behavior (Jonason et al., 2013c). Just such a position is taken by researchers using the confluence model of sexual aggression (Abbey, Jacques-Tiura, & LeBreton, 2011; Malamuth, 1996). In this study, we examined how the three distal personality traits of the Dark Triad—as opposed to more proximal



mal ones like empathy or attitudes toward casual sex—predicted rape-enabling, examined whether individual differences were responsible for some of the sex differences in rape-enabling attitudes, and tested three causal models of the relationship between “dark” personality traits and rape-enabling attitudes.

Various lines of evidence converge to suggest traits like psychopathy (Fernandez & Marshall, 2003; Jonason, 2015; Jones & Olderbak, 2014; O’Connell & Marcus, 2016), narcissism (Bushman et al., 2003; Hepper et al., 2014), and Machiavellianism may be related to attitudes that facilitate rape. For instance, the Dark Triad traits are associated with limited empathy (Jonason et al., 2013c) and impulsivity (Jones & Paulhus, 2011), both of which may be proximal predictors of rape (Mouilso, Calhoun, & Rosenbloom, 2013; O’Connell & Marcus, 2016; Wheeler, George, & Dahl, 2002). In addition, if the evolutionary psychologists studying the Dark Triad traits are correct and the traits do facilitate an exploitive mating strategy (Jonason et al., 2009, 2011b, 2012), rape seems like a prime candidate for investigation. In this study, we found that while all three of the Dark Triad traits predicted rape-enabling attitudes, only psychopathy had any unique association with these attitudes after the shared variance among the traits was partialled out (Table 2; Fig. 2). However, the best predictive model (i.e., Fig. 3) was when the shared variance (i.e., the latent Dark Triad) among the traits was considered on its own, an effect found when examining sexual coercion as a proxy for rape (Figueredo et al., 2015), but also in research on animal cruelty (Kavanagh et al., 2013) and sociosexuality (Jonason et al., 2011a).<sup>5</sup> Said another way, the unique aspects of each trait (i.e., Fig. 2) provide a small, relatively meaningless, and nonsignificant improvement on accounting for individual differences in rape attitudes. This suggests the traits represent a coordinated system that works best together to facilitate the exploitive mating strategy of rape. In addition, the Dark Triad traits facilitate rape-enabling attitudes in men, suggesting they capture part of the psychological systems that enable men to engage in such exploitive mating behavior more than women.

An important consideration provided only by evolutionary psychologists when examining rape (and other psychological phenomena) is to examine both proximate (i.e., mechanistic) and ultimate (i.e., functional) causes (Goetz, Shackelford, & Camilleri, 2008; Symons, 1979). In this study, we failed to examine proximal factors like cultural attitudes and lower-order personality traits like empathy, sociosexuality, and impulsivity as they have already been researched. While the examination of these proximal factors is important, we wished to say something larger about (1) the exploitive mating hypothesis in regard to the Dark Triad traits and (2) about who and why people might have rape-enabling attitudes in the first place. In order to do so, we have

adopted an evolutionary paradigm. This paradigm makes no value judgment about acceptable or unacceptable behavior and, instead, tries to examine the phenomenon of rape (or any other phenomena) from a detached, theoretical position (Thornhill & Thornhill, 1983, 1987). As such, we have focused on ultimate factors like heritable personality traits and the adaptive significance, albeit controversial, of rape as a mating strategy. From this perspective, it is unsurprising that men had more rape-enabling attitudes than women did and the fact that individual differences in the Dark Triad traits facilitated such attitudes in men suggest the cognitive mechanisms present in some men to enable them to rape. As men (over evolutionary time) could have benefited more from an exploitive mating strategy than women could have (Buss & Schmitt, 1993), natural selection might have acted on the psychological systems captured (partially) by the Dark Triad traits in some men to enable reproductive fitness (Jonason et al., 2009, 2011b). In other words, the Dark Triad traits might be adaptations for sexual exploitation. This does not mean there are not moderating or mediating factors or that all men will be rapists. It merely provides answers to the questions of why rape exists in the first place and why it is so much more prevalent in men than it is in women. We have added detail here in regard to how this might occur with an examination of the psychological systems that might be responsible for such effects.

## Limitations and Conclusions

Despite the novelty and statistical rigor of our study, it had a few limitations. First, one might criticize our reliance on a WEIRD (i.e., Western, Educated, Industrialized, Rich, and Democratic; see Henrich, Heine, & Norenzayan, 2010) sample. The possibility—in theory—exists that the associations we found between rape-enabling attitudes and the Dark Triad traits might be localized to Western, online samples. However, we see no good reason to expect such effects; we do not see Westerners/online participants as particularly “evil” relative to others around the world. In the absence of such evidence/logic, we feel confident in our conclusions.

Second, one might criticize our study because we have conducted no efforts to reduce rape as others have done (O’Donohue, Yeater, & Fanetti, 2003; Piccigallo, Lilley, & Miller, 2012; Schewe & O’Donohue, 1993). That is, as rape is viewed as a serious social ill, our focus on theoretical questions about rape is mistaken; priority should be given to taking efforts at reducing rape. We would argue that the best way to reduce rape is to determine what really causes rape. Spending lots of time on rape-sensitivity training and advocating for gender equality might be a fool’s errand if the genuine causes of rape are not related to such conditions and not subject to learning effects (Barnes et al., 2013; Långström et al., 2015). In our opinion, more “blue sky” research is warranted on rape and rape-enabling attitudes in order to provide a clearer and more balanced picture of this behavior.

Third, one might criticize our reliance on self-report measures. Truth-be-told, however, this might be an overzealous concern for a number of reasons. For instance, self-report methods are standard in

<sup>5</sup> We suspect that the individual traits will have more predictive utility when examining nonadaptive tasks because selection pressures are likely to line coordinated systems up in a way that evolutionary novel/irrelevant tasks may not.

personality psychology and we would be hard-pressed to measure personality traits in a non-self-report form. As we used well-validated measures, we feel confident in our adoption of this methodology. In addition, measuring the behavior of rape might seriously undermine the power of our tests in self-report biases and the actual rarity of rape (Jonason, 2015); attitudes that facilitate rape are likely easier to assess and more prevalent. Nevertheless, we cannot provide causal evidence as to the mechanisms behind rape. Instead, we have provided theoretical tests based on the confluence model (Malamuth et al., 1991, 1995) of the relationship between distal personality traits and rape-enabling attitudes (Lonsway & Fitzgerald, 1995; Voller & Long, 2009).

In conclusion, rape is a serious problem with serious consequences from either an evolutionary or feminist perspective (Thornhill & Palmer, 2000). We have provided further detail about who rapes and why they, men in particular, might commit rape. We focused on personality traits that map onto both proximal paths of the confluence model: *hostile masculinity* and *impersonal sex*. The Dark Triad traits appear to (1) predict rape-enabling attitudes, (2) mediate sex differences in rape-enabling attitudes, and (3) constitute a coordinated system for sexual exploitation. We encourage more work on the personality mechanisms to predict rape from an evolutionary perspective.

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#### Compliance with Ethical Standards

**Conflict of interest** None.

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