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Short Communication

Liar liar pants on fire: Cheater strategies linked to the Dark Triad

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1. Introduction

The Dark Triad (i.e., narcissism, Machiavellianism, psychopathy; Paulhus & Williams, 2002) is a personality cluster of three distinct but overlapping traits. Narcissism is defined by dominance, entitlement, and superiority (Emmons, 1984). Machiavellianism is characterized by manipulativeness and glib social charm (Christie & Geis, 1970). Psychopathy is exhibited through high thrill seeking, impulsivity, and low empathy (Hare, 1985). While generally viewed as socially maladaptive and pathological, recent work suggests these traits embody cheater adaptations that are linked to mating success (Jonason, Li, Webster, & Schmitt, 2009) and the adoption of a wide range of social influence tactics (Jonason & Webster, 2012). In this study, we test the "cheater strategy" hypothesis by examining links between the Dark Triad traits and deception-related behavior, emotions, and cognitions.

Recent work has provided initial support for the various cheater strategies (i.e., intersexual and intrasexual deception) linked to the Dark Triad traits (Jonason, Baughman, Lyons, & Vernon, 2014). However, more detail is warranted. First, most work making the case for the cheater strategy has not directly tested the hypothesis (Jonason & Webster, 2012). Second, the work that has directly tested it (Jonason et al., 2014) relied on a sample of British undergraduates, on one conceptualization of the Dark Triad traits,

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ABSTRACT

The present study (N = 462) examined the relationship between the Dark Triad traits (i.e., narcissism, Machiavellianism, and psychopathy) and deception in domain-general and domain-specific contexts. As predicted, psychopathy and Machiavellianism were linked to the propensity to lie in different contexts, including mating and academic dishonesty. Psychopathy was related to experiencing more positive emotions associated with lying and Machiavellianism was associated with increased amount of cognitive effort associated with deception. Sex differences in deception were partially mediated by individual differences in the Dark Triad traits. Our findings have important implications for the interpersonal strategies employed by those high on the Dark Triad.

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failed to examine emotional and cognitive aspects of deception, and did not juxtapose deception in different contexts. Therefore, we examine the Dark Triad traits and deception in the domaingeneral and domain-specific contexts. We also extend previous research by delving deeper into the emotional and cognitive aspects of lying. In addition, we consider domain-specific lying in evolutionary relevant (i.e., mating) and novel (i.e., academic) contexts.

We make a number of predictions about the deceptive tactics related to the Dark Triad traits. We predict that psychopathy and Machiavellianism will be positively related to the frequency of lying in the domain-general context. Psychopathy and Machiavellianism share a number of common characteristics (McHoskey, Worzel, & Szyarto, 1998), including manipulativeness and deceitfulness, which are portrayed by pathological lying and other deceptive behaviors (Hare, 1985; Christie & Geis, 1970). In other words, we would expect these individuals to lie more often in everyday life. However, given the exploitative mating strategy that is associated with psychopathy but not Machiavellianism (Jonason, Luévano, & Adams, 2012), we expect lying in the domain-specific context of mating will be stronger among psychopaths than Machiavellians.

In addition to understanding how the Dark Triad traits function in the mating context, we also examine how they function in an evolutionarily-novel context, namely, academic dishonesty. Among the traits, psychopathy is the least sensitive to contextual differences (Jonason & Webster, 2012) and we predict that the deception tendencies underlying psychopathy should be invariant





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across contexts. In other words, those high in psychopathy appear insensitive to the modulating force of context (or even target) of their actions and this may extend to lying. However, as individuals high in Machiavellianism are motivated specifically by power and status (Christie & Geis, 1970), they may engage less in deception in mating contexts but more in academic contexts, where status is earned.

Lying is a cognitively demanding task, especially so when telling elaborate lies. As such, we predict that the Dark Triad traits will be linked to more cognitive effort expended on lying, regardless of context. In other words, we would expect individuals high on the Dark Triad to expend more cognitive resources in order to lie successfully. If deception is an adaptive strategy, we would also expect these same individuals to (1) believe others are fooled by their lies and (2) derive some pleasure from lying to others.

Therefore, we assess the relationships between the Dark Triad traits and perception of cognitive effort expended to lie, degree of enjoyment derived from lying, and degree to which high Dark Triad individuals believe (rightly or wrongly) that they convince others with their lies. We contend these three factors come together as part of the suite of psychological factors that facilitate the purported cheater strategy that Dark Triad traits embody (Jonason et al., 2014).

Previous findings indicate that men lie more than women do and score higher on the Dark Triad traits (Jonason et al., 2009, 2014). This suggests to us that sex differences in lying might be driven, in part, by individual differences in the Dark Triad traits. We expect this to be primarily attributable to the effects of Machiavellianism and psychopathy, the "darker" traits of the cluster (Rauthmann, 2012).

To date there has only been one direct test (that we know of) of the cheater strategy hypothesis suggested for either psychopathy on its own (Mealey, 1995) or the Dark Triad traits collectively (Jonason et al., 2014). In order to further test this hypothesis and to provide new and interesting details about the deception related links to the Dark Triad traits we present this brief report. In it we assess the correlations between the Dark Triad traits and domain-specific and domain-general lying along with deception in mating and academic contexts.

2. Method

2.1. Participants and procedure

A sample of 462 Canadian undergraduate students (130 men), aged between 16 and 80 years (M = 19.49, SD = 4.86), participated in an online testing session for an introductory psychology course. Once participants had completed the questionnaires, they were debriefed and compensated with course credit.

2.2. Measures

The Dark Triad traits were assessed with the 27-item Short-D3 (Jones & Paulhus, 2014). Respondents are asked to rate the degree to which they agree with statements (1 = *Disagree Strongly*; 5 = *Agree Strongly*) reflective of narcissism (e.g., "I like to be the center of attention"), Machiavellianism (e.g., "It's not wise to tell your secrets"), and psychopathy (e.g., "I like to get revenge on authorities"). Items were averaged into indexes of narcissism (Cronbach's α = .70), Machiavellianism (α = .66), and psychopathy (α = .77).¹

We assessed participants' perceptions of lying with an amended version of a measure used in previous research (Gonza, Vrij, & Bull, 2001). We added items tapping into the cognitive and emotional aspects of lying. Participants responded to a number of items on 7-point Likert scales in two contexts (i.e., mating and academic; see Appendix A). Exploratory factor analyses (with various rotations) yielded an unclear multidimensional structure, so we adopted a modified Thematic Analysis to reduce the number of variables and Type I error (Jonason & Buss, 2012). This was accomplished by grouping the items into face-valid composites based on internal consistency where possible (otherwise we correlated the two items)². Items were reduced into four composites for each scenario to assess various aspects of lying across and within-contexts (varied order; within-participants). First, participants were asked (1) how often they lie, and (2) how often their lies are detected. Participants reported how likely they would lie in the given situation (2 items: r(460) = .31 and .46, p < .001), with higher scores representing a greater inclination to lie. They also indicated their emotional state (8 items; α = .80 and .82), with higher scores being characteristic of positive emotions (e.g., joy or satisfaction). Participants also indicated how much cognitive effort they would expend in order to lie successfully (5 items; α = .64 and .71), with higher scores signifying more effort (e.g., planning, originality). Lastly, participants were asked the degree to which they believed that the person being lied to (i.e., partner or lecturer) would believe their lie.

3. Results

In terms of the Dark Triad, men scored higher than women on Machiavellianism and psychopathy (t's(460) = 2.53 and 2.46, p's < .01, Hedge's g's = 0.24 and 0.26, respectively). In the mating context, men reported a greater inclination to lie, a more positive emotional state, and an expected positive reaction from their partner than women (t's(460) = 2.67 to 4.09, p's < .01, g's = 0.26 to 0.46). In the academic context, men reported a more positive emotional state in relation to lying than women (t(460) = 3.38, p < .01, g = 0.36).

We report the associations between the Dark Triad traits and our various measures of lying in Table 1. All three Dark Triad traits were positively related to self-reported lying frequency. After controlling for the shared variance among the traits, this association was entirely attributable to psychopathy and Machiavellianism. Those who scored high on the Dark Triad traits did not report that they were better at lying than others, which may raise concerns about social desirability. Psychopathy had the strongest link with positive emotions while lying in both contexts. Machiavellianism was related to planning ahead and constructing a lie to be more original and to include more detail, particularly in the academic context.

In order to examine whether the Dark Triad traits mediate sex differences in lying, we conducted hierarchical regressions (Step 1 included sex of the participant; Step 2 included the Dark Triad traits). Sex differences in one's emotional state while lying in the mating context were partially mediated by the Dark Triad traits ($\Delta R^2 = .15$; *F*(4,413) = 23.58, *p* < .01), such that the direct effect ($\beta = .19$, *p* < .01) was reduced ($\beta = .12$, *p* < .01) when the indirect effects of Machiavellianism ($\beta = .16$, *p* < .01) and psychopathy ($\beta = .25$, *p* < .01) were added. Further, sex differences in one's emotional state while lying in the academic context was fully mediated by the Dark Triad traits ($\Delta R^2 = .13$; *F*(4,417) = 17.89, *p* < .01), such that the direct effect ($\beta = .09$, *ns*) when the indirect effects of narcissism ($\beta = .14$, *p* < .01), Machiavellianism ($\beta = .15$, *p* < .01) and psychopathy

¹ Psychopathy was correlated with Machiavellianism (r(460) = .49, p < .001) and narcissism (r(460) = .34, p < .001). Narcissism was correlated with Machiavellianism (r(460) = .26, p < .001).

² More details upon request.

Table 1

Zero-order correlations and standardized regression coefficients for the Dark Triad traits and domain-specific contexts of deception.

	r(β)		
	Narcissism	Machiavellianism	Psychopathy
Mating context Probability of lying Emotional state Cognitive effort Partner's reaction	.07 (.03) .25** (.10*) .18** (.10) .11* (.08)	.10° (.06) .34° (.18°) .15° (.15°) .13° (.16°)	.13** (.09*) .46** (.25**) .14** (.03) .06 (02)
Academic context Probability of lying Emotional state Cognitive effort Lecturer's reaction	.14** (.06) .28** (.14**) .08 (.02) .19** (.14**)	.25** (.18**) .33** (.16**) .28** (.29**) .16** (.08)	.19** (.09) .42** (.19**) .10* (04) .17** (.09)

^{*} *p* < .05.

** p < .01.

 $(\beta = .18, p < .01)$ were added. Last, we found that narcissism $(\beta = .09, ns)$, Machiavellianism $(\beta = .10, ns)$ and psychopathy $(\beta = .04, ns)$ did not account for any unique variance, however we found evidence for partial mediation $(\Delta R^2 = .03; F(4,431) = 4.11, p < .01)$, such that the direct effect $(\beta = .11, p < .05)$ was reduced when the indirect effect $(\beta = .08, ns)$ was added.

4. Discussion

In the present study we adopt an evolutionary framework that views the Dark Triad traits as adaptive in terms of an exploitative, self-serving life strategy (Jonason & Webster, 2012; Jonason et al., 2009). The assertion that the Dark Triad traits are characterized by underlying cheater strategies has only recently been empirically supported (Jonason et al., 2014). We sought to replicate previous work by testing the "cheater strategy" hypothesis in the domain-general and domain-specific contexts of deception. We extended this further by examining high-stakes lying in evolutionary relevant (i.e., mating) and novel (i.e., academics) settings and focused on the emotional and cognitive aspects of lying.

In the mating context, Machiavellianism was related to the belief that one's partner would believe the lie, whereas narcissism was related to a belief one's lecturer would believe the lie. Consistent with our predictions, we found that psychopathy was related to a greater probability of lying and more pleasure derived from lying; links that were equivalent across the two contexts. This may reveal the "darker" nature of psychopathy (Rauthmann, 2012) and is consistent with the "one-size fits all" approach these individuals engage in (Jonason & Webster, 2012). A similar pattern was detected in narcissism but the links were weaker. In contrast, Machiavellianism was related to an increase in cognitive effort while lying in both contexts, but considerably more so for lies involving academic integrity. It appears that Machiavellianism may be more associated with various aspects of lying in the context of academics. Machiavellianism may be less directly involved in mating decisions (Jonason et al., 2012) but, instead, be more involved with social maneuvering and the attainment of status, which may be found in academic settings. Importantly, this may distinguish psychopathy from Machiavellianism. It suggests that these two traits differ as a function of context more than content: both may use deception but the reasons, goals, and contexts those high on either trait employ deception may differ.

We replicated sex differences in deceptive attitudes and tactics; however, our findings are not fully consistent with most of the Dark Triad literature, as a significant difference did not emerge for narcissism. Aside from methodological artifacts, it is possible that women are increasingly endorsing this trait (Giammarco & Vernon, 2014). Without thorough longitudinal studies, however, we cannot be certain. Our results indicate that men adopted cheater strategies more so than women, particularly in the mating context. From an evolutionary perspective, being "bad" comes with fewer costs and more benefits (i.e., mate acquisition, status attainment) for men than for women (Figueredo et al., 2006), and having these "darker" personality traits may be more adaptive in men (Jonason et al., 2009). We also found that sex differences in deception were partially accounted for by individual differences in the Dark Triad traits, namely Machiavellianism and psychopathy.

The present study is not without limitations. First, our study relied on a sample of university undergraduates. While this is a standard sample in mainstream social-personality psychology, it might be important to extend our research to special populations such as offenders, who have actively engaged in a more costly cheater strategy than academic misconduct. Similarly, by relying on undergraduate students we may have missed important other contexts where lying might be adaptive or functionally useful, such as the workplace. In addition, we assessed self-reported lying rather than actual lying ability. However, assessing actual lying ability in the high stakes context is a difficult task (Mann, Vrij, & Bull, 2002). Nevertheless, our findings provide support for the unique cheater strategies linked to the Dark Triad.

Appendix A.

Lying questionnaire scenarios

Scenario 1 (mating context)

You and your partner have been in a healthy relationship for over two years. One day, you receive an email from your ex-partner asking if you want to meet up for coffee. Although hesitant at first, you agree to meet with them. You decide not to tell your current partner about this meeting. While you are having coffee at the café with your ex-partner, you notice that a friend of your current partner is looking at you from across the room. Instead of approaching you to say hello, this friend walks out of the café. When you return home, your partner says that they heard from a friend about your meeting with your ex and demands to know your side of the story.

Scenario 2 (academic context)

It is near to the end of the semester and you have assignments building up and exams to study for. One important assignment is due in and you have yet to write it. The marks for the assignment count for 40% of your overall grade for this course and it is not your best subject. You are friends with a student who took the same course the year before you and they offer to give you their assignment to help you out. They got 82% for their essay. You finish the assignment and hand it in on time, although you have plagiarized a substantial amount of your friend's work. You then think nothing more about it. When the assignments have been marked, your lecturer asks to have a word with you about some of the assignment he recognizes. He suspects you have plagiarized but you tell him that the essay was all your own work.

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