Short Communication

A gender role view of the Dark Triad traits☆

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ABSTRACT

In two college-student samples from Australia ($N = 305$) and Alabama ($N = 207$), we examined how the Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism) were correlated with individual differences in gender roles and whether gender roles can account for sex differences in the Dark Triad traits. In Study 1, the Dark Triad traits were associated with less femininity and more masculinity and sex differences in the traits were mediated by femininity only. In Study 2, psychopathy and Machiavellianism were associated with less femininity and narcissism and psychopathy were associated with more masculinity and we replicated the mediation for psychopathy and Machiavellianism. We discuss how the gender roles may be part of the coordinated systems of adaptations that comprise the Dark Triad traits.

"Gender" is a term used to define sociocultural aspects of being a man (i.e., masculinity) and a woman (i.e., femininity) and is composed of different psychological features that are considered "appropriate" for each sex to enact in a given society (Unger, 1990). Masculinity is reflective of an underlying dimension defined by assertiveness, boldness, dominance, self-sufficiency, and instrumentality, while femininity is defined by nurturance, expression of emotion, and empathy. Here we assess how the Dark Triad traits might be correlated with individual differences in gender roles.

The Dark Triad traits are associated with a variety of sex-differentiated and gender-relevant aspects of psychology including limited empathy (Jonason, Lyons, Bethell, & Ross, 2013), impulsivity (Jones & Paulhus, 2011), and seeking dominance and prestige (Semenyna & Honey, 2015) and are, themselves, more common in men than in women. These aspects of personality may act as parts of the coordinated system that allow men to better enact a *fast* life history strategy (i.e., mating over survival; now over tomorrow). Another part of this coordinated system may be having a masculine (and low feminine) gender identity. Being masculine (as opposed to feminine) may orient men towards pursuing a wide array of agentic tasks through characteristics like assertiveness. In contrast, a feminine disposition may directly interfere with the aggressive exploitation of conspecifics by encouraging, for instance, compassion. Therefore, we predict (1) the Dark Triad traits should be correlated with the more masculinity/less femininity and (2) sex differences in the Dark Triad traits should be facilitated (i.e., mediated) by gender identity.

In this brief study, we ask a simple question. Does being

characterized by the Dark Triad traits just mean being low in femininity/high on masculinity? In two datasets, drawn from two universities, we examine the correlations between the Dark Triad traits and measures of psychological gender roles and test whether sex differences in the Dark Triad traits are a function of individual differences in gender roles.

1. Study 1

We begin to study the relationship between gender roles and the Dark Triad traits by assessing the correlations between the traits and three measures of masculinity/femininity. We also replicate sex differences and test mediation of sex differences in the Dark Triad traits gender roles. We expect sex differences in the Dark Triad traits are spuriously driven by sex differences in gender roles.

2. Method

2.1. Participants and procedure

The sample consisted of 305 undergraduate students (29% male) from Western Sydney University, aged 17–53 ($M = 21.20$, $SD = 5.32$) who were recruited via the School of Social Science and Psychology's research participation system in exchange for credit for completion of a larger study. Participants came to a lab, were guided into individual testing rooms with desktop computers, were given an information sheet, and had an opportunity to ask questions before giving written

consent. The measures were completed at a computer, online through Surveymonkey®. Upon completion, participants were debriefed and thanked for participation.

2.2. Measures

To assess psychopathy, the Self-Report Psychopathy Scale-III (Paulhus, Neumann, & Hare, 2009) was used. Participants indicated how much they agreed (1 = *Not at all*; 5 = *Extremely*), with statements such as "Rules are made to be broken" and "I enjoy taking chances". The responses were averaged to create an index of psychopathy (Cronbach's α = 0.82).

Narcissism was assessed using the 16-item Narcissism Personality Inventory (Ames, Rose, & Anderson, 2006). For each item the participants were presented with two statements from which they had to choose the statement that applied to them best. Of the statements, one reflected a narcissistic attitude (e.g., "I am more capable than other people"), whereas the other did not (e.g., "There is a lot I can learn from other people"). By summing the total number of narcissistic statements chosen, the overall narcissism score of the participant was calculated (α = 0.73).

Machiavellianism was measured with the 20-item MACH-IV (Christie & Geis, 1970). Participants were asked how much they agreed (1 = *Not at all*; 5 = *Extremely*) with statements such as "Anyone who completely trusts anyone else is asking for trouble" and "Never tell anyone the real reason you did something unless it is useful to do so." The items were averaged to create the index of Machiavellianism (α = 0.69).[1]

Individual differences in masculinity and femininity with the Bem Sex Role Inventory (Bem, 1974) were measured. It is composed of ten items measuring femininity (e.g., "I am tender.") and ten items measuring masculinity (e.g., "I am ambitious.") where participants reported their agreement with each item (1 = *Strongly disagree*; 7 = *Strongly agree*). The scores for each measure were averaged to create a score of masculinity (α = 0.87; MTI) and femininity (α = 0.88; FTI).

For measurement heterogeneity, the California Personality Index femininity scale (Bohannon & Mills, 1979) was used as a second measure gender identity. For each item, participants were asked to rate whether they agreed if the 38 statements accurately described them by selecting either "*true*" or "*false*" on items such as "*I am somewhat afraid of the dark*" and "*at times I feel like picking a fist fight with someone.*" These responses were keyed either masculine (negative) or feminine (positive), and the scores were summed to create an index of femininity (α = 0.51).[2]

3. Results and discussion

Men scored higher than women did on the Dark Triad traits and women were more feminine than men were using only the CPI instrument (Table 1, top panel). When examining the correlations (Table 2, top panel), the Dark Triad traits were associated with limited femininity and enhanced masculinity. However, the association for narcissism and femininity appear to be a function of shared variance with the other two traits as the associations drop out when the shared variance in accounted for. The relationship between masculinity (MTI) and Machiavellianism appears non-significant until the shared variance is removed whereas its relationship to femininity (CPI) is lost when the shared variance was accounted for. Psychopathy was consistently correlated

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[1] Psychopathy was correlated with narcissism (*r* = 0.50, *p* < 0.01) and Machiavellianism (*r* = 0.47, *p* < 0.01). Narcissism correlated with Machiavellianism (*r* = 0.28, *p* < 0.01).

[2] The MTI was positively related to the FTI (*r*(305) = 0.18, *p* < 0.05), while the CPI's femininity scale showed the expected negative relationship with the MTI (*r*(305) = − 0.19, *p* < 0.01), and a positive relationship with the FTI (*r*(305) = 0.15, *p* < 0.05).

Table 1
Descriptive statistics and sex differences in the Dark Triad traits and gender roles.

	M (SD)			*t*	*g*
	Overall	Men	Women		
Study 1 (*N* = 305)					
Dark Triad traits					
Psychopathy	1.97	2.06	1.93	− 2.96**	− 0.36
	(0.36)	(0.40)	(0.34)		
Narcissism	3.79	4.55	3.50	− 2.83**	− 0.35
	(2.99)	(3.24)	(2.84)		
Machiavellianism	2.67	2.76	2.64	− 2.42*	− 0.29
	(0.42)	(0.42)	(0.41)		
Gender roles					
Feminine Trait Index	51.90	50.83	52.53	1.59	− 0.23
	(7.44)	(7.57)	(7.36)		
Masculine Trait Index	45.09	45.64	44.87	− 0.61	− 0.08
	(9.98)	(9.27)	(10.27)		
Femininity (CPI)	20.80	17.82	21.99	9.63**	1.20
	(3.90)	(3.46)	(3.40)		
Study 2 (*N* = 207)					
Dark Triad traits					
Psychopathy	2.39	2.79	2.25	− 4.73**	− 0.76
	(0.74)	(0.62)	(0.74)		
Narcissism	2.90	3.04	2.86	− 1.54	− 0.25
	(0.74)	(0.71)	(0.74)		
Machiavellianism	2.40	2.77	2.28	− 3.73**	− 0.60
	(0.85)	(0.89)	(0.80)		
Gender roles					
Feminine Trait Index	4.00	3.74	4.08	− 3.37**	− 0.54
	(0.66)	(0.62)	(0.65)		
Masculine Trait Index	3.61	3.73	3.58	1.70	0.27
	(0.57)	(0.58)	(0.57)		

Note. *g* is Hedge's *g* for effect size.
* *p* < 0.05.
** *p* < 0.01.

Table 2
Zero-order correlations and standardized multiple regression coefficients describing the associations between the Dark Triad traits and measures of gender roles.

	Machiavellianism	Psychopathy	Narcissism
Study 1 (*N* = 305)			
Masculine Trait Index	0.04 (0.18**)	0.34** (0.18**)	0.55** (0.51**)
Feminine Trait Index	− 0.36** (− 0.27**)	− 0.32** (− 0.22**)	− 0.13* (0.06)
Femininity	− 0.16** (0.02)	− 0.37** (− 0.33**)	− 0.25** (− 0.09)
Study 2 (*N* = 207)			
Masculine Trait Index	0.11 (− 0.12)	0.19** (0.15)	0.25** (0.16**)
Feminine Trait Index	− 0.31** (− 0.19*)	− 0.44** (− 41**)	− 0.11 (0.17*)

Note. These correlations did not differ across participant's sex (*p* < 0.01).
* *p* < 0.05.
** *p* < 0.01.

with a "masculine" gender role.

We tested whether sex differences in the Dark Triad traits were merely a function of sex differences in gender roles. Given that the only sex difference we detected amongst gender roles was with the CPI instrument, we conducted three hierarchical regressions with this variable as the mediator. Sex differences in all three traits (Step 1: βs = 0.14 to 0.17, *ps* < 0.01) were fully mediated (Step 2: βs = − 0.01 to 0.08) by individual differences in femininity, suggesting that the men who are high on narcissism (ΔR^2 = 0.04, *p* < 0.01), psychopathy (ΔR^2 = 0.11, *p* < 0.01), and (to a lesser extent) Machiavellianism (ΔR^2 = 0.01, *p* < 0.06) are especially low on femininity but not necessarily more masculine.

4. Study 2

Study 1 suggests masculinity and femininity might be correlated with the Dark Triad traits which appears to account for the sex difference in the traits. However, we failed to find sex differences in the Bem measures of gender roles and the CPI measure had only the minimum level of acceptable internal consistency (Schmitt, 1996). In addition, the results are bound to only one measurement model of the Dark Triad traits. In Study 2, the Dirty Dozen measure of the Dark Triad traits was used to attempt to re-test the associations with the Bem measure and replicate effects from Study 1.

4.1. Participants and procedure

Participants were 207 (25% male) undergraduate volunteers from the University of West Alabama aged between 18 and 58 years ($M = 22.56$, $SD = 7.19$). Participants were contacted through their psychology classes and asked to participate in a larger 15-min survey and provided a link to follow to participate. If they followed it, they were informed of the nature of the study. If they consented, they proceeded through a self-report study on Qualtrics®. Upon completion, they were thanked and debriefed.

4.2. Measures

Like above, the Bem Sex Role Inventory was used to measure individual differences in masculinity and femininity. Participants reported agreement (1 = *Strongly disagree*; 5 = *Strongly agree*) with the item. Items were averaged to create an index of femininity ($\alpha = 0.89$) and masculinity ($\alpha = 0.79$) that were correlated ($r(205) = 0.35$, $p < 0.01$).

To measure the Dark Triad traits, the Dark Triad Dirty Dozen (Jonason & Webster, 2010) was used. Participants were asked how much they agreed (1 = *Strongly disagree*; 5 = *Strongly agree*) with statements such as: "I tend to want others to admire me" (i.e., narcissism), "I tend to lack remorse" (i.e., psychopathy), and "I have used deceit or lied to get my way" (i.e., Machiavellianism). Items were averaged together to create an index of narcissism ($\alpha = 0.66$), Machiavellianism ($\alpha = 0.78$), and psychopathy ($\alpha = 0.65$).[3]

5. Results and discussion

Men were more psychopathic and Machiavellianism than women were, and women were more feminine than men were, but the sexes did not differ in masculinity or narcissism (Table 1, bottom panel). At the zero-order level (Table 2, bottom panel), more masculinity was associated with more psychopathy and narcissism whereas more femininity was associated with less psychopathy and less Machiavellianism. When we partialed the shared variance in the Dark Triad traits, it was only narcissism that was correlated with masculinity and narcissism was now also associated with more femininity suggesting the residual of narcissism was both feminine and masculine.

Like above, we tested whether sex differences in the Dark Triad traits were a function of gender roles. However, because there were no sex differences in masculinity or narcissism we excluded them from analyses. Sex differences in Machiavellianism (Step 1: $\beta = 0.26$, $p < 0.01$) were partially mediated (Step 2: $\beta = 0.16$, $p < 0.05$) by individual differences in femininity ($\Delta R^2 = 0.07$, $p < 0.01$). Sex differences in psychopathy (Step 1: $\beta = 0.23$, $p < 0.01$) were fully mediated (Step 2: $\beta = 0.10$) by individual differences in femininity ($\Delta R^2 = 0.15$, $p < 0.01$). Together, these tests suggest that being

psychopathic or Machiavellian is strongly a function of being psychologically unfeminine.

6. General discussion

In this study, we tested two hypotheses. First, we tested whether the Dark Triad traits may be related to having a masculine and unfeminine psychological gender role. Second, we considered whether sex differences in the Dark Triad traits might be mediated by individual differences in gender roles. We tentatively confirmed these predictions given the heterogeneity in our results and the wide array of potential ways to measure gender role/identities. We also replicated some of the sex differences in the Dark Triad traits and gender roles. Some interesting qualifiers emerged as well. For example, it was narcissism that was the strongest correlate to masculinity whereas psychopathy was particularly linked to limited femininity. However, narcissism was also linked to femininity in Study 2 (although using a different measure than Study 1). These results affirm the rather antisocial nature of psychopathy and the prosocial nature of narcissism (Jonason, Strosser, Kroll, Duineveld, & Baruffi, 2015). Nevertheless, our results are consistent with life history models of the Dark Triad traits, suggesting that gender roles may be part of the coordinated system of adaptations that allow men, in particular, who are characterized by the Dark Triad traits to engage in a selfish, approach to social interactions.

6.1. Limitations and conclusions

This was a straightforward study, and yet, it still is characterized by several limitations. First, our samples were predominantly female and were W.E.I.R.D. (i.e., western, educated, industrialized, rich, and democratic; Henrich, Heine, & Norenzayan, 2010) as is common in research using psychology student samples. We used the Hedges' measure of effect size to adjust for the sex ratio imbalance to get more trustworthy estimates of the effects. If masculinity and femininity are defined differently in different cultures, our results may also be bound to Western samples only. Third, we adopted two measures of gender roles, but others might be worth pursuing as well (Stern, Barak & Gould, 1987). Fourth, we confined our study to psychological aspects of gender roles, but physiological factors like 2D:4D and testosterone might also be worth examining. Fifth, we only examined higher-order traits in Study 1 and cannot examine lower-order traits in Study 2. Examination of these might be fruitful, but we saw them as exploratory in nature and refrained from reporting them here. Future work should attempt to address these limitations.

In conclusion, we examined the associations between individual differences in gender roles and the Dark Triad traits. Psychopathy, in particular, was low on femininity which may reflect its antisocial, unempathetic, and selfish tendencies. In contrast, it was narcissism's masculine tendencies may step from ambition, status-seeking, and assertiveness. And last, we found that sex differences in the Dark Triad traits appear to be a function of low rates of femininity (not necessarily high rates of masculinity). We conclude that high masculinity and low femininity (in particular) are part of the coordinated system of exploitation found in the Dark Triad traits.

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[3] Machiavellianism was correlated with psychopathy ($r = 0.54$, $p < 0.01$) and narcissism ($r = 0.60$, $p < 0.01$) and narcissism was correlated with psychopathy ($r = 0.41$, $p < 0.01$).

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