



## Agentic and communal behavioral biases in the Dark Triad traits<sup>☆</sup>

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### ABSTRACT

We assessed the correlations between the Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism) and behavioroid manifestations of agency and communion ( $N = 294$ ). All three traits were positively associated with more agentic behavioral intentions and narcissism was also positively associated with communal behavioral intentions. The agency association was driven mostly by the shared variance as opposed to the unique variance in the traits, but both the unique and shared variance was necessary to derive a good fit between agency and the Dark Triad traits. Indeed, when the shared variance was partialled, the Dark Triad traits revealed a less agentic intentionality. Sex differences in the Dark Triad traits and agency were replicated but, we also found that sex differences in the latter were fully mediated by individual differences in the former. Results are discussed using a life history paradigm, suggesting that agentic behavioral intentions may be part of the *fast* life history strategy that characterizes the Dark Triad traits.

Considerable work on the Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism) has emerged over the last decade (Marcus & Zeigler-Hill, 2015). These traits capture individual differences in grandiosity, exhibitionism, superiority (i.e., narcissism), manipulativeness, cynicism (i.e., Machiavellianism), interpersonal antagonism, and callousness (i.e., psychopathy). The traits have theoretical and practical implications for various fields of research including organizational, clinical, and social psychology. However, one limitation of this work is that it tends to examine a somewhat haphazard assortment of traits, values, attitudes, cognitions, and behaviors (e.g., Jonason, Strosser, Kroll, Duineveld, & Baruffi, 2015; Jones & Olderbak, 2014; Semenyá & Honey, 2015) that interest the researchers instead of taking a macroscopic look at the nature of these traits. Researchers have rarely inquired as to how these traits might be related to the higher-order (i.e., macroscopic) individual differences like the “Big Two” traits of agency and communion (Abele & Bruckmüller, 2011; Abele & Wojciszke, 2014). In this report, we try to understand the Dark Triad traits in relation to this distinction.

Agency and communion reflect individual differences in “self-interested” and “other-interested” traits, respectively, and those characterized by the Dark Triad traits often behave in agentic ways which may be an expression of a hedonistic value system (Jonason, Sitnikova, & Oshio, 2018; Kajonius, Persson, & Jonason, 2015). People characterized by psychopathy and Machiavellianism often hold antagonistic values (Jonason, Strosser, et al., 2015), are low on communal social

strategies, and are high on exchange social strategies (Jonason, Duineveld, & Middleton, 2015). People characterized by narcissism often have independent self-construals (Jonason et al., 2017), are communal in social strategies (Jonason, Duineveld, & Middleton, 2015), and have self-interested (as opposed to antagonistic) values (Jonason, Strosser, et al., 2015). The Dark Triad traits, collectively, may predispose people to behave in agentic ways by enhancing assertiveness and predispose people towards limited communal values by attenuating soft-heartedness (Rauthmann & Kolar, 2013). The traits may further predispose people to engage in agentic behaviors like short-term mating (Jonason, Li, Webster, & Schmitt, 2009), having limited empathy (Jonason & Kroll, 2015), and engaging in interpersonal violence (Jonason, 2015).

If we step back, it seems that a general pattern is emerging; the Dark Triad traits are especially related to high levels agency and (less so) related to low levels of communion. However, the nature of narcissism may lead people to be characterized by an array of features different than the other two traits. Psychopathy and Machiavellianism are, by and large, exclusively “dark” traits with their characteristic exploitative, cold, and manipulative nature. It is with these features that narcissism is associated with psychopathy and Machiavellianism. The residual of variance associated with narcissism is “lighter” in nature and it is with this residual, albeit small, that narcissism is associated with communal behaviors (McDonald, Donnellan, & Navarrete, 2012). Unfortunately, most research on this question has been limited in several

<sup>☆</sup> Authors' note: This study represents a modified version of the Honors thesis of the second author at Western Sydney University.

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ways. First, attempts to capture variance in the Big Two has relied on various personality proxies (e.g., self-construals; Jonason, Foster, et al., 2017) and generally not attempted to capture variance in the Big Two with ostensible downstream behaviors. Second, the relationship between the Dark Triad traits and potential agentic or communal behaviors has been measured with a somewhat random assortment of disconnected behaviors like engaging in casual sex (Jonason et al., 2009) and failed to capture a wide range of behaviors to get at potentially larger patterns. Third, while the Dark Triad traits might be correlated with both agency and communion (Rauthmann & Kolar, 2013), comparing the relative magnitude of these associations has been rare, yet it is important given the slightly orthogonal nature of agency and communion (Abele & Wojciszke, 2007). In this study, we attempt to better understand how the Dark Triad traits are related to the Big Two traits.

In this study, we capture individual differences in agency and communion using a behavioroid (i.e., behavioral intentions) method. We contend that agency can be revealed in a behavioral syndrome characterized by fast life history (i.e., *r*-selected; mating over survival, now over later) behaviors like pleasure-seeking, sexual encounters, and risk-taking whereas communion can be revealed in a behavioral syndrome characterized by slow life history behaviors (i.e., *K*-selected, survival over mating, the future over the present) like connecting with friends and family. Life history (Wilson, 1975) research on the Dark Triad traits has already revealed that the traits are related to range of ostensible agentic/fast behaviors like smoking, casual sex, and drug use (Jonason, Koenig, & Tost, 2010). Therefore, we predict that all the Dark Triad traits will be correlated with a behavioral bias towards agency; effects that will be especially pronounced, relative to communal biases, in those characterized by psychopathy and Machiavellianism. However, as noted above, people characterized by narcissism might also be characterized by some communal biases. For instance, while narcissism has its agentic roots, it also has been studied in the form of “communal narcissism” as well (Gebauer, Sedikides, Verplanken, & Maio, 2012). Therefore, we predict narcissism will also be correlated with a communal behavioral bias; an effect that will be equal to that of agency given the balance of dark and light aspects of narcissism.

Around the world, there are sex differences in the Dark Triad traits (Jonason, Foster, et al., 2017) and agency and communion (Kashima et al., 1995). Both may reflect men's greater tendency to engage in fast life history strategies than women. Men may be more agentic, and higher on the Dark Triad traits, because ancestrally, the social and physical cost-benefit ratio is more favorable than it is for women. Being self-interested may allow men, more than women, to improve their reproductive success and resource acquisition while paying fewer costs (Jonason & Lavertu, 2017). Because modern psychological systems are a function of ancestral challenges (according to evolutionary psychologists), we expect to replicate sex differences in both. The fast life, selfish strategies to deal with intersexual and intrasexual conflict along with survival challenges, like the Dark Triad traits, are not typical of the entire male population. Given the selfish nature of agency, we expect that men characterized by the Dark Triad traits may be especially likely to engage in agentic behaviors. Therefore, we expect sex differences in behavioral manifestations of agency and communion to be mediated by individual differences in the Dark Triad traits.

In this report, we detail our efforts to understand the Dark Triad traits in relation to the Big Two traits. We adopted an adaptionist paradigm and test for sex differences and mediation based on life history theory. We present the first study (we know of) using a behavioroid measure of agentic and communal behaviors in relation to the Dark Triad traits.

## 1. Method

### 1.1. Participants and procedure

Predominantly (70%) white/European American participants

( $N = 294$ ; 142 men),<sup>1</sup> aged 18–71 years ( $M = 35.51$ ,  $SD = 11.03$ ) were paid US\$1 through Amazon's Mechanical Turk to complete an online questionnaire. 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. Participants were informed of the nature of study and if they consented, proceeded through a series of self-report measures described below. Upon completion, participants were thanked, debriefed, and paid.

### 1.2. Measures

The 27-item Short Dark Triad questionnaire (Jones & Paulhus, 2014) was used to assess the Dark Triad traits. Participants indicated how much they agreed (1 = *Strongly disagree*; 5 = *Strongly agree*) with items such as “It's not wise to tell your secrets” (i.e., Machiavellianism), “people see me as a natural leader” (i.e., narcissism), and “Payback needs to be quick and nasty” (i.e., psychopathy). Items were averaged for the corresponding measures of Machiavellianism (Cronbach's  $\alpha = 0.84$ ), narcissism ( $\alpha = 0.75$ ), and psychopathy ( $\alpha = 0.77$ ).

To measure agentic and communal behaviors, we created an *ad hoc* list of 20 potential behaviors people might engage in. These items (and no other items) were chosen to capture a range of agentic and communal behaviors and a range of socially acceptable/unacceptable behaviors. Participants reported the likelihood (1 = *Very unlikely*; 5 = *Very likely*) of engaging in each behavior. Instead of engaging in pesky and problematic item-analyses, we reduced the 20 behaviors into two factors—agentic and communal behaviors—using principle components analysis (Table 1).<sup>2</sup> These two aspects were somewhat orthogonal ( $r(292) = 0.25$ ,  $p < .001$ ). Correlations between the individual items and each Dark Triad trait can be found in Appendix A.

## 2. Results

People were more communal than agentic ( $t(293) = 21.69$ ,  $p < .001$ , Cohen's  $d = 1.55$ ). Men scored higher in the Dark Triad traits and agency than women, but there was no difference in communion (see Table 2). The Dark Triad traits were correlated with more agentic behavior, narcissism was positively associated with communion, and Machiavellianism and psychopathy were more (positively) associated with agency than communion (see Table 3); effects that were constant across the sexes.

To disentangle the shared and unique variance in the Dark Triad traits, we tested three structural equation models where the latent and unique variance predicted a latent agency factor (Fig. 1;  $\chi^2/df = 2.85$ ), a model with only the unique relationships to the latent agency factor (Fig. 2;  $\chi^2/df = 6.72$ ), and a model where only the latent variance predicted the agency factor (Fig. 3;  $\chi^2/df = 4.58$ ). The latent variance was a strong predictor (standardized coefficients) of more agentic behavior whereas the residual variance in each trait predicted less agentic behavior. Fig. 2 presents the most parsimonious model but only had an acceptable fit whereas Fig. 3 had unacceptable fit. This is a weak confirmation of other work highlighting the utility of a latent Dark Triad factor over the traits themselves. Nevertheless, Fig. 1 was the best fitting model, suggesting that the shared and unique variance of each trait has something to offer to explain variance in agentic behaviors.

Last, we turn to the potential for mediation of sex differences in agency, but not communion given the lack of sex difference in the latter. In a hierarchical multiple regression, participant's sex (Step 1)

<sup>1</sup> Sample size was determined based on estimates of when the average correlation in the field (Richard, Bond Jr., & Stokes-Zoota, 2003) stabilizes (Schönbrodt & Perugini, 2013).

<sup>2</sup> As part of this study, participants were asked to imagine and write about the best day, their worst day, or the weather, but this was ineffective, so we collapsed across the distinction. More details about these analyses are available upon request.

**Table 1**  
Component loadings from a principle components analysis with a varimax rotation for behavioroid items.

	Components		
	Communion	Agency	<i>h</i> <sup>2</sup>
Go for a walk	0.74	–	0.55
Spend time with a partner	0.55	–	0.30
Seek out a friend	0.64	–	0.44
Listen to music	0.58	–	0.33
Pray and/or Meditate	0.51	–	0.27
Go for coffee	0.49	–	0.27
Sit under a tree	0.65	–	0.46
Spend time with friends	0.72	–	0.53
Engage in exercise	0.65	–	0.44
Paint or draw	0.57	–	0.34
Eat	0.52	–	0.28
Masturbate	–	0.63	0.41
Drive a motor vehicle fast	–	0.53	0.38
Engage in drug use	–	0.71	0.53
Mull over past wrongs	–	0.44	0.22
Visit a strip club	–	0.73	0.55
Drink alcohol	–	0.54	0.34
Engage in casual sex	–	0.71	0.52
Smoke tobacco	–	0.36	0.18
Plan revenge	–	0.58	0.34
Eigenvalues	4.87	2.79	
Percentage of Variance	24.53	13.94	38.29
Cronbach's $\alpha$	0.83	0.75	

Note. Component loadings < 0.30 have been suppressed.

**Table 2**  
Sex differences and descriptive statistics for the Dark Triad traits and behavioroid measures of communion and agency.

	<i>M</i> ( <i>SD</i> )			<i>t</i>	<i>d</i>
	Overall	Men	Women		
Machiavellianism	2.69 (0.81)	2.84 (0.85)	2.54 (0.74)	3.21*	0.57
Narcissism	2.56 (0.69)	2.67 (0.66)	2.46 (0.70)	2.67*	0.31
Psychopathy	2.06 (0.70)	2.27 (0.74)	1.86 (0.60)	5.31**	0.61
Communion	2.95 (0.83)	2.91 (0.80)	3.00 (0.86)	–0.87	–0.11
Agency	1.77 (0.68)	1.95 (0.77)	1.61 (0.51)	4.40**	0.52

Note. *d* = Cohen's *d* for effect size.

\* *p* < 0.01.

\*\* *p* < 0.001.

accounted for 6% ( $F = 19.71, p < .01$ ) of the variance in agency. When we added the three traits (Step 2), they accounted for an additional 29% ( $\Delta F = 45.67, p < .01$ ). Because the correlation for sex ( $\beta = -0.25, p < .01$ ) shrunk to near-zero ( $\beta = -0.08, p = .09$ ), we concluded the three traits fully mediated the sex difference in agency. Psychopathy retained a residual association ( $\beta = 0.55, p < .01$ ), suggesting it was the primary hub of the mediation effect and that the mediation for narcissism and Machiavellianism were partially artifacts of the shared variance with psychopathy.

**Table 3**  
Correlations between the Dark Triad traits and communion and agency.

	Overall			Men			Women		
	Communion	Agency	<i>z</i>	Communion	Agency	<i>z</i>	Communion	Agency	<i>z</i>
Machiavellianism	–0.02	0.41*	6.45*	–0.01	0.42*	–4.81*	–0.01	0.32*	–3.24*
Narcissism	0.23*	0.30*	0.42	0.27*	0.27*	0.00	0.22*	0.28*	–0.60
Psychopathy	0.02	0.59*	9.32*	0.08	0.58*	–6.02*	–0.02	0.53*	–5.80*

Note. Steiger's *z* to calculate the difference between dependent correlations.

\* *p* < 0.001.

### 3. Discussion

Researchers have already documented that those high in the Dark Triad traits engage in casual sex, do drugs, drink alcohol, and discount the future (Jonason et al., 2010). These associations have recently been framed in terms of life history theory. However, the research tends to capture only a small picture of the behavioral manifestations associated with the Dark Triad traits and fails to consider how the various behavioral outcomes might themselves be understood using the Big Two traits of agency and communion (Abele & Wojciszke, 2014). In this study, we examined the associations between the Dark Triad traits and behavioroid manifestations of agency and communion in an online sample.

The Dark Triad traits are all linked to agentic behavioral intentions, as predicted (Jonason, Duineveld, & Middleton, 2015; Kajonius et al., 2015). Such work is consistent with prior work on the Dark Triad traits (Rauthmann & Kolar, 2013) and may be consistent with a life history model of the traits (Jonason et al., 2010). In contrast, communal behaviors were only correlated with narcissism. Communal behaviors center around more prosocial ways of expressing oneself and being “good”. However, this is inconsistent with prior work (Rauthmann & Kolar, 2013) suggesting all the Dark Triad traits were correlated with limited communalism (i.e., “consequences for others”). It is difficult to say why this discrepancy exists, however, given the inconsistencies across both studies including sample and method. Some caution in the interpretation of our effect is warranted given its size; a size that might reflect error as opposed to a bona fide relationship. This association might be related to work on communal narcissism that suggests that normative conformity can be a way to satisfy one's ego-needs in societies where such conformity is rewarded (Gebauer, Wegner, Sedikides, & Neberich, 2013). Prior work also found that agency and communion existed on the same continuum which is inconsistent with what we found here and the idea that the Big Two are orthogonal (Abele & Bruckmüller, 2011; Abele & Wojciszke, 2007). Nevertheless, if we can trust it, the present study reveals a novel association which might be a function of residual variance associated with narcissism that leads people towards communal behaviors.

Indeed, something of a solution might be offered in how we partialled variance in the Dark Triad traits. It was the shared variance, more than the unique variance, that predicted agentic behaviors (see Figs. 1 and 3). However, when the latent and unique variances predicted agency (see Fig. 1), the associations between the Dark Triad traits and agentic behavior appear to be negative, not positive, suggesting that the residual of all three traits are less inclined to be agentic whereas, it is only the considerable overlap between the traits that drives the agency. This is important to note here because the Dark Triad traits are multi-dimensional traits that are a combination of fast and slow life history strategies (McDonald et al., 2012). Interestingly, however, the residuals of psychopathy and Machiavellianism do not mirror this effect, and instead, merely reveal low levels of agency as opposed to high rates of communalism. Fig. 1 was the best fitting model, suggesting the shared and unique variances of each traits has something to offer in helping researchers understand agentic behavior.

We replicated sex differences in the Dark Triad traits (Jonason,

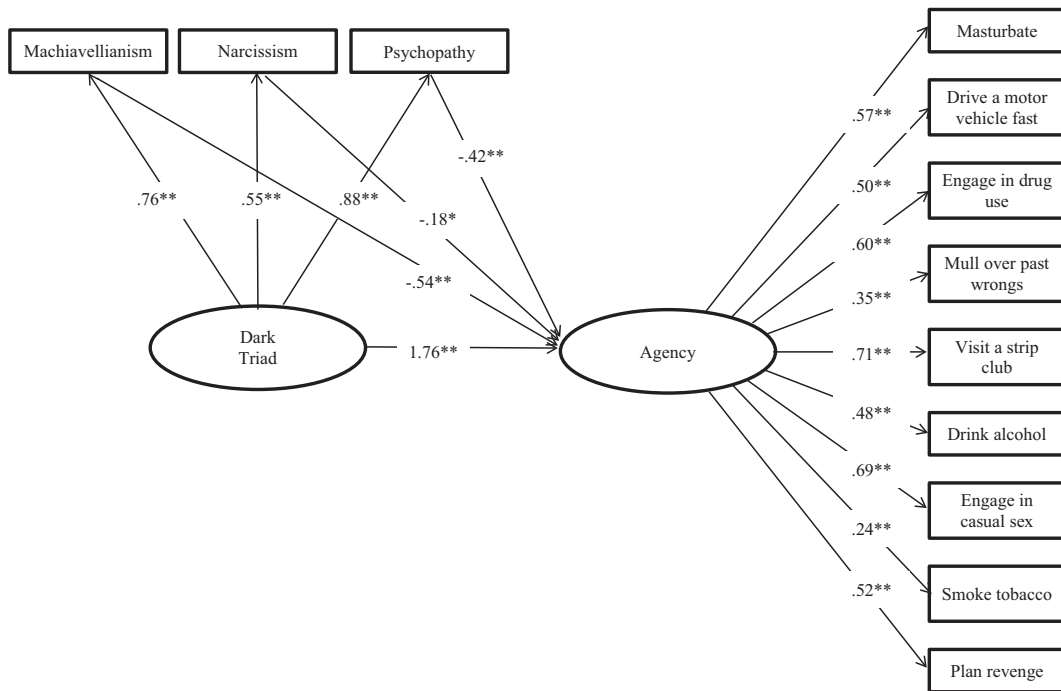


Fig. 1. SEM where the Dark Triad traits and the latent Dark Triad predicted latent agency.  $\chi^2(51) = 145.06, p < .01, CFI = 0.90, RMSEA = 0.08$  (90%CI 0.06, 0.10). \*  $p < .05, ** p < .01$ .

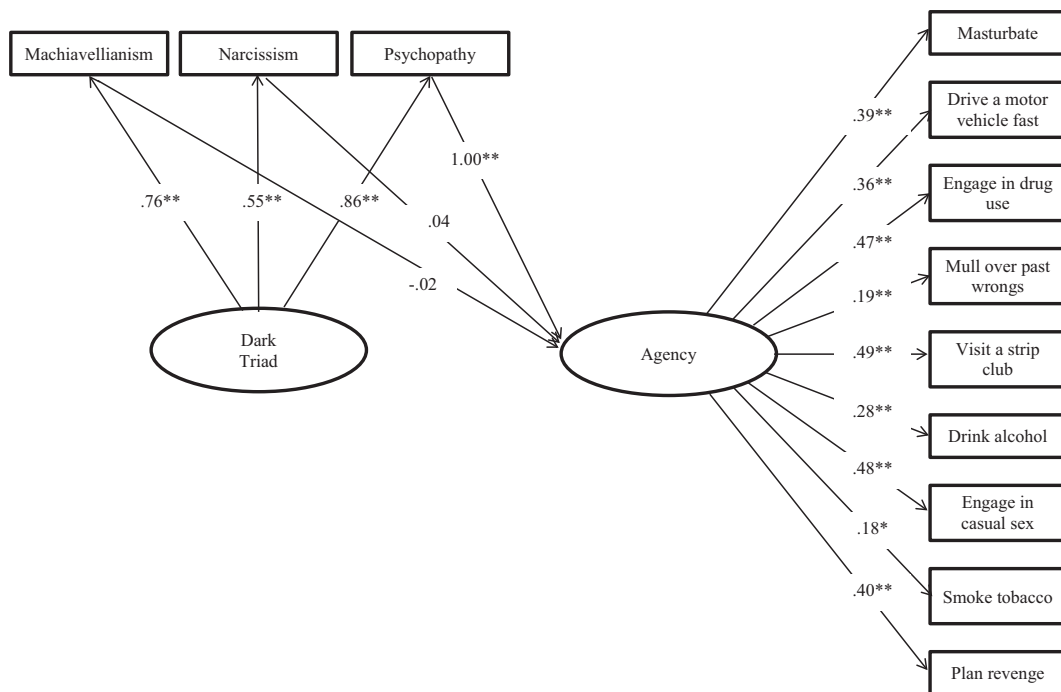


Fig. 2. SEM where only the Dark Triad traits predicted latent agency.  $\chi^2(52) = 349.29, p < .01, CFI = 0.69, RMSEA = 0.14$  (90%CI 0.13, 0.14). \*  $p < .05, ** p < .01$ .

Foster, et al., 2017) and in agency, but not communion (Kashima et al., 1995). We add to this a mediation effect suggesting that agentic behaviors are more common in men because the Dark Triad dispositions may be responsible for differences in men and women's psychological systems related to costs and benefits. While this cannot be definitively stated here given the cross-sectional methods, it seems more likely that traits lead to behaviors than behaviors lead to traits. Traits are thought

to have causal properties in the world, leading people to make choices and engage in certain behaviors over others (Buss, 1987). We did not, however, find (as predicted) that women would be more communal than men or that low Dark Triad scores would facilitate high communalism. This may be because communal behaviors tap species-typical behavioral intentions in the shape of slow life history biases (i.e., survival over mating; tomorrow over now). Indeed, participants were

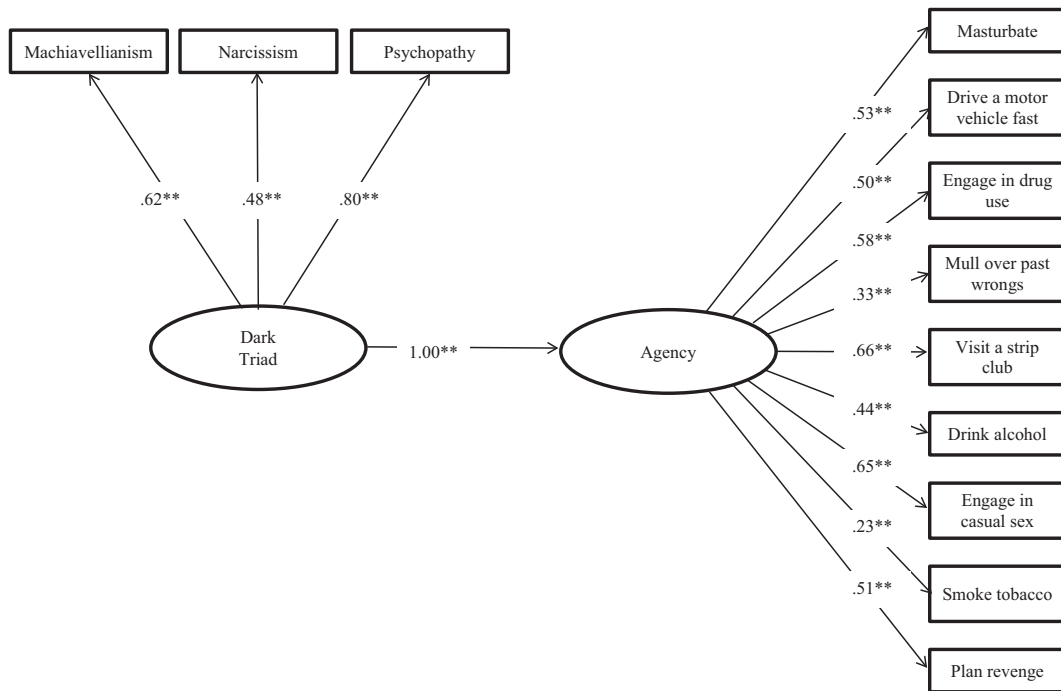


Fig. 3. SEM where only the latent Dark Triad predicted latent agency.  $\chi^2(54) = 247.51, p < .01, CFI = 0.80, RMSEA = 0.11$  (90%CI 0.10, 0.13) \*  $p < .05, ** p < .01$ .

more communal than they were agentic suggesting that it is only a subset of people who engage in agentic, fast life history strategies. Prior research confirms that the common life history strategy for humans is rather slow (Mace, 2000) and this applies to both sexes. Alternatively, this effect may be driven by the socially undesirable nature of the behaviors that comprise agency here. Women may merely be less willing to admit to engaging in these behaviors than are men, whereas the benign nature of the communal behaviors may reduce such social desirability effects.

4. Limitations and conclusions

Despite presenting a unique test of the agency hypothesis of the Dark Triad traits, the study, is nonetheless limited. First, the sample was W.E.I.R.D. (i.e., Western, educated, industrialized, rich, and democratic; Henrich, Heine, & Norenzayan, 2010). It is possible that agentic motives and behaviors best serve individuals in individualistic societies, making those out for personal gain motivated to be agentic. However, in societies with more communal values, being communal might come with rewards that motivate those high in the Dark Triad traits—narcissism in particular—to feign communal behaviors (Gebauer et al., 2013). Second, our measures of agentic and communal behavior were self-reported behavioral intentions and may be subject to response biases and the measures have not been validated here or elsewhere. Given that our predictions regarding this measure line up with theory, we are reasonably confident in the utility of this measure. However, because this scale has not been rigorously validated, the fit indexes were all (unsurprisingly) poor-to-acceptable. Our tests here were geared more towards testing the agency-communion links with the Dark Triad

traits as opposed to presenting a new scale to assess the former. We suspect more rigorous testing of this scale might yield better fit, but this was not the goal of the present study. Instead, the goal of these tests, presently, was to show that the latent model would fit the data better—albeit not great itself—than the unique model. Third, we have confined ourselves to just the Dark Triad traits when sadism and spitefulness might be worth pursuing in the future (but see, Jonason, Zeigler-Hill, & Okan, 2017). And fourth, our results are similar to work suggesting the Dark Triad traits are correlated with self-reports of agency and communion, but we failed to tap other-reports of the same behaviors. Prior work has also failed to show that other-reports of agency or communion (Rauthmann & Kolar, 2013), which may be because there is something of a covert nature to these traits or simply that people tend to not infer aversive personality traits from a few instances of behavior (as is common in experimental methods), although the fundamental attribution error suggests otherwise.

In conclusion, we have provided a unique test of how the Dark Triad traits might be related to agentic and communal behavioral intentions. While the traits are predominantly agentic—which likely leads to their negative perceptions (Rauthmann & Kolar, 2013)—they come with at least a glimmer of “light” in the form of an equal association with communal behaviors for narcissism. In addition, sex differences in agency appear to be a function of individual differences in the Dark Triad traits, shedding light on who “misbehaves” (i.e., often men) and why they do so. We encourage more systematic work on the Dark Triad traits in relation to the Big Two traits because of the latter’s utility in personality research and its ability to provide more systematic, macroscopic insights into the darkness than other, more scattered, microscopic approaches.

Appendix A. Correlations between the Dark Triad traits and the behavioroid items

Communions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1. Go for a walk	–																						
2. Spend time with a partner	.26**	–																					
3. Seek out a friend	.40**	.28**	–																				
4. Listen to music	.41**	.17*	.24**	–																			
5. Pray and/or Meditate	.37**	.26**	.21**	.17**	–																		
6. Go for coffee	.40**	.21**	.37**	.30**	.09	–																	
7. Sit under a tree	.46**	.33**	.37**	.28**	.33**	–																	
8. Spend time with friends	.44**	.46**	.62**	.32**	.27**	.21**	.39**	–															
9. Engage in exercise	.49**	.28**	.36**	.37**	.28**	.24**	.37**	.41**	–														
10. Paint or draw	.34**	.21**	.31**	.26**	.33**	.28**	.48**	.29**	.29**	–													
11. Eat	.31**	.28**	.24**	.36**	.16**	.20**	.21**	.32**	.30**	.22**	–												
Agency																							
12. Masturbate	.11	.02	.06	.22**	–.11	.12*	.14*	.06	.12*	.14*	.28**	–											
13. Drive a motor vehicle fast	.19**	.21**	.25**	.15**	.08	.23**	.26**	.20**	.24**	.22**	.19**	.27**	–										
14. Engage in drug use	–.05	–.04	.07	–.11	–.04	.11	.09	–.05	.03	.07	–.08	.31**	.26**	–									
15. Mull over past wrongs	.14*	.01	.17**	.16**	.16**	.10	.22**	.09	.04	.15*	.19**	.32**	.26**	.25**	–								
16. Visit a strip club	.10	.11	.17**	.04	–.01	.12*	.23**	.13*	.18**	.17**	.07	.44**	.31**	.37**	.23**	–							
17. Drink alcohol	.15*	.09	.24**	.10	.03	.22**	.15**	.19**	.15**	.16**	.18**	.24**	.35**	.36**	.15**	.37**	–						
18. Engage in casual sex	.05	.09	.19**	.05	–.06	.08	.14*	.14*	.18**	.13*	.13*	.37**	.36**	.38**	.14*	.53**	.40**	–					
19. Smoke tobacco	–.11	–.08	–.00	–.09	–.03	.04	–.05	–.11	–.11*	–.04	–.09	.08	.06	.36**	.09	.09	.11	.19**	–				
20. Plan revenge	.05	.04	.05	.04	.04	.09	.12*	–.01	.11	.10	.09	.31**	.26**	.32**	.30**	.43**	.07	.32**	.07	–			
Dark Triad																							
21. Machiavellianism	–.08	–.03	–.04	.05	–.09	.05	.00	–.09	–.03	.01	.08	.27**	.32**	.28**	.21**	.27**	.18**	.30**	.09	.29**	–		
22. Narcissism	.14*	.16**	.11	.09	.12*	.13*	.10	.16**	.21**	.12*	.16**	.19**	.27**	.14*	.01	.31**	.22**	.30**	.04	.12*	.42**	–	
23. Psychopathy	–.11	–.02	.01	–.02	–.09	.06	.09	–.00	–.01	.09	.10	.39**	.36**	.48**	.19**	.48**	.27**	.48**	.18**	.40**	.67**	.48**	

\*  $p < .05$ .

\*\*  $p < .01$ .

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