



Short Communication

The Napoleon complex, revisited: Those high on the Dark Triad traits are dissatisfied with their height and are short[☆]Monika A. Kozłowska^a, Daniel Talbot^{b,c,d}, Peter K. Jonason^{e,f,*}^a University of Wrocław, Poland^b Westmead Hospital, Australia^c University of Sydney, Australia^d University of Notre Dame, Australia^e University of Padua, Italy^f University of Cardinal Stefan Wyszyński, Poland

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ABSTRACT

In this study ($N = 367$; 62.53 % men) we reconsidered the Napoleon complex that suggests shorter people—men in particular—may compensate for their shortness with antagonistic behaviors. We conceptualized antagonism as individual differences in the Dark Triad traits (i.e., psychopathy, narcissism, and Machiavellianism) and found they were associated with not only being shorter but also with the wish to be taller; these associations were similar in the sexes. We discussed our results from an evolutionary (i.e., calibrating formidability) perspective.

1. Introduction

The Napoleon complex is the popular belief that shorter stature is a disadvantage for men which leads to compensatory behaviors. For example, shorter men may exhibit indirect aggressive behaviors towards taller men, show behavioral flexibility in securing resources when they are physically less competitive, and are more likely to be jealous of their romantic partners (Brewer & Riley, 2009; Just & Morris, 2003; Knapen et al., 2018). In this study, we provide evidence for such a complex in those characterized by the Dark Triad traits of psychopathy (i.e., callousness, criminality), narcissism (i.e., inflated sense of self, grandiosity), and Machiavellianism (i.e., pragmatic cynicism, duplicity).

The Napoleon complex could be a marker of inferiority as in the complex theory (Adler, 1927) or an adaptive strategy to compensate for diminished intrasexual competitive abilities (Barber, 1995). Although the origins of the Napoleon complex are attributed specifically to the former, its premises do not sufficiently predict and explain systematic connections between lower stature, varied compensatory behaviors, and sex differences therein. In contrast, the adaptationist perspective may provide a more specific explanation of the Napoleon complex. It leads to

the prediction that physical characteristics of key importance in the context of natural and sexual selection may be linked to psychological functioning. The variable of interest—height—is one of the traits that may affect one's success in intersexual selection and intrasexual competition. For both men and women, height is an essential factor in determining suitability for relationships, attractiveness, and reproductive success (Pawlowski et al., 2000; Perkins et al., 2021). Height may also play an important role in intrasexual selection because physical characteristics, like strength and size, provide advantages during physical confrontations (Archer & Thanzami, 2007; Sell et al., 2012).

There is considerable research linking personality traits to body image concerns (Adams, 1980; Allen & Robson, 2020; Ishikawa et al., 2001), including the Dark Triad traits. For instance, narcissism is related to eating disorders, body checking, and excessive exercise in women (Campbell & Waller, 2010; Waller et al., 2008). Additionally, Machiavellianism is a risk factor in the relationship between body image concerns and self-objectification (Dryden & Anderson, 2019). However, this research tends to focus more on weight than height.

Given that height is a key contributor to body image and satisfaction, and quality of life for both sexes (Griffiths et al., 2019; Perkins et al.,

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2021), and there are established relationships between body-related variables and personality traits, we explored the relationship between height, attitudes about one's height, and the Dark Triad traits. Based on previous studies, we hypothesized that shorter participants and those with more negative attitudes towards their height should score higher on Dark Triad traits. Based on Adlerian views, we tested whether those correlations were stronger in men than women.

2. Method

2.1. Participants and procedure

The data used in the present study was collected as part of a larger project aimed at understanding the role of the Dark Triad traits and body image. The initial sample consisted of 420 adults (265 men, 155 women) from the USA recruited from Amazon's MTurk (US\$1.20). After screening, the total number of participants used in analyses was 367 (233 men, 134 women), aged between 20 and 72 years ($M = 36.57, SD = 10.02$), who were predominantly heterosexual (84.19 %) and White (74.11 %). The necessary sample size was determined based on the average effect size in personality psychology ($r \approx 0.20$; Gignac & Szodorai, 2016) and guidelines ($N \approx 250$) for reducing estimation error in personality psychology (Schönbrodt & Perugini, 2013). Participants were informed about the tasks and given instructions. Ethics approval for the study was granted by institutional Human Ethics Research Board at the University of Notre Dame, Sydney Australia (ID: 2021-010S) and the data is available on the Open Science Framework (<https://osf.io/w2g98/>).

2.2. Measures

To measure individual differences in Dark Triad traits we used the 12-item Dirty Dozen Dark Triad questionnaire (Jonason & Webster, 2010). Participants reported their agreement (1 = strongly disagree; 5 = strongly agree) with items like "I tend to manipulate others to get my way" (i.e., Machiavellianism), "I tend to be callous or insensitive" (i.e., psychopathy), and "I tend to want others to admire me" (i.e., narcissism). Items were averaged to create indices of the traits.

We captured individual differences in height in three ways. First, we asked participants to report their actual height (the data was also used to calculate body mass index). Next we measured attitudes towards one's height with two items comprising the height dissatisfaction subscale of the male body attitudes scale (Tylka et al., 2005). The statements (i.e., "I wish I were taller" and "I am satisfied with my height"). Participants reported frequency of experiencing such attitudes (1 = never; 6 = always). Both measures were treated separately because they were uncorrelated ($p = .06$).

Table 1

Descriptive statistics, correlations within and between Dark Triad traits and measures of body image, and sex differences for measures of Dark Triad and body image ($N = 367$).

	1	2	3	4	5	6	7
1. Machiavellianism							
2. Psychopathy	0.79**						
3. Narcissism	0.70**	0.66**					
4. Actual height	-0.16**	-0.13*	-0.16**				
5. Body Mass Index	-0.04	-0.06	-0.01	-0.24**			
6. Wish to be taller	0.44**	0.46**	0.39**	-0.18*	<0.01		
7. Height satisfaction	-0.11*	-0.01	-0.16**	0.04	0.14**	0.10	
Cronbach's α	0.85	0.87	0.82	-	-	-	-
Overall: M (SD)	2.96 (1.13)	2.85 (1.17)	3.24 (1.02)	168.07 (13.50)	26.4 (7.33)	3.28 (1.60)	2.75 (1.40)
Men: M (SD)	3.06 (1.09)	2.99 (1.09)	3.33 (0.95)	172.72 (14.04)	26.19 (6.63)	3.40 (1.63)	2.78 (1.37)
Women: M (SD)	2.79 (1.17)	2.61 (1.25)	3.08 (1.11)	163.48 (11.09)	26.79 (8.41)	3.08 (1.53)	2.71 (1.47)
t -Test	2.27*	2.98**	2.81*	4.91**	-0.75	1.84	0.45
Cohen's d	0.25	0.32	0.25	0.53	-0.08	0.20	0.04

* $p < .05$.

** $p < .01$.

3. Results

Shorter people, and those who wished to be taller were higher on the Dark Triad traits (Table 1). When we examined whether the correlations were moderated (Fisher's z) by participant's sex, we found limited evidence for moderation ($Mz = 0.12, SD = 1.02, Range = -1.98$ to 1.11). Despite this, we found one moderation effect suggesting that the correlation between height and narcissism was stronger ($z = -1.98, p < .05$) in men ($r = -0.27, p < .01$) and nonexistent in women ($r = -0.06$). Hints of a similar effect existed for psychopathy ($z = -1.22, p = .11$).

When we compared effects between the traits (Steiger's z), we found that the correlations did not differ much on average ($Mz = -0.23, SD = 1.65, Range = -2.95$ to 3.50). However, the correlations with the item asking whether people wished to be taller were higher in psychopathy than narcissism ($z = 1.83, p < .05$), whereas correlations with the item reflecting satisfaction with one's height were higher in Machiavellianism ($z = -2.95, p < .01$) and in narcissism ($z = -3.50, p < .01$) than psychopathy.

In three standard multiple regressions with the Dark Triad traits as dependent variables, we found the three height variables accounted for variance in Machiavellianism (22.80 %; $F[3, 361] = 35.62, p < .001$), psychopathy (22.46 %; $F[3, 361] = 34.92, p < .001$), and narcissism (20.79 %; $F[3, 361] = 31.66, p < .001$). The results were invariant by sex. In all three regressions those who wished to be taller scored higher on the Dark Triad traits ($p < .001$). Those who were satisfied with their height were less narcissistic and less Machiavellian. ($p < .001$). Also, there was a residual correlation indicating that shorter men were more Machiavellian ($p < .01, p = .63$ for women).

Last, we examined the incremental validity of accounting for the Dark Triad traits on psychological aspects of height (Step 2) over physical aspects of height (Step 1). Actual height explained 3.27 % of the variance in the wish to be taller ($R^2 = 0.03; F[1, 363] = 12.29, p < .01$). After entering the Dark Triad traits, the amount of explained variance raised to 21.93 % ($R^2 = 0.25; F[4, 360] = 30.32, p < .001$). In case of the height satisfaction, actual height explained 0.1 % of the variance ($R^2 = 0.001; F[1, 363] = 0.47, p = .48$). After the inclusion of the Dark Triad traits, the explained variance raised to 4.78 % ($R^2 = 0.05; F[4, 360] = 4.65, p < .01$).

4. Discussion

Our study provided the first examination of the relationship between height, height attitudes, and the Dark Triad traits. Generally, our hypotheses were supported: all three traits were associated with the wish to be taller and shorter stature. The correlations were not moderated by participants' sex, barring one weak effect for narcissism, suggesting the Adlerian view might be incorrect. The Dark Triad traits explained

variance in the wish to be taller and height satisfaction beyond actual height.

These relationships may be best understood from an evolutionary framework, suggesting that when people cannot be physically formidable, they may then be psychologically formidable instead. Shorter men can demand respect, impose costs on others, acquire resources, and impress romantic partners by their traits. Shorter women can use deception to appear more desirable or to gain protection and resources. Additionally, appearing more powerful may in turn affect others' perceptions of one's estimated height (Fessler et al., 2012; Sorokowski, 2010). We propose that psychological formidability may provide advantages in survival and mating domains that offset losses in physical formidability. The Dark Triad traits may thus be calibrated, based on height, to better enable people to solve life history tasks.

4.1. Limitations and conclusions

Despite its novelty, the study has several limitations. First, by relying on the Dirty Dozen measure we may have underestimated the correlations between the traits and the height variables, and we cannot examine aspects of each trait. Also, because of a lack of sophisticated methods to analyze height-related issues, we used one-item indicators of height satisfaction and another for the wish to be taller. Second, our results may be American-specific in terms of height estimates which may not change the correlations themselves but, instead, fail to address the fact that people living in other countries than their birth may make different social comparisons which may affect height attitudes. Third, the use of Mechanical Turk as a data source could be problematic if we assume different traits like height may lead people to adopt different lifestyles, including taking online surveys. And last, given that our data is cross-sectional, we cannot track how these traits may be related to actual growth. For instance, at what point do these traits activate adaptive responses is an intriguing question as high scores on these traits in pre- v. post-pubertal development may better test the facultative calibration idea.

Despite these shortcomings—no pun intended—our study provides the first assessment (we know of) of how the Dark Triad traits relate to height and height attitudes. We showed that not only are people high on the Dark Triad traits less satisfied with their height, but this may be because they are actually shorter. This leads us to believe that the behavioral syndromes of the Dark Triad traits may be part of a suite of psychological systems designed by natural selection to better enable those of shorter stature a way to still compete in life's great challenges.

CRedit authorship contribution statement

Monika A. Kozłowska: Conceptualization, Investigation, Writing – original draft, Data curation, Formal analysis, Visualization. **Daniel Talbot:** Conceptualization, Investigation, Data curation, Writing –

original draft. **Peter K. Jonason:** Conceptualization, Methodology, Investigation, Writing – original draft, Writing – review & editing, Resources, Project administration.

Data availability

<https://osf.io/w2g98/>

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