



## Deviating from the social consensus: Relations among the Dark Triad, moral normativity, and general social normativity

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### ABSTRACT

There are two plausible hypotheses for why those high in the Dark Triad traits (Machiavellianism, narcissism, and psychopathy) behave immorally: (1) They do not understand morality and are, consequently, unable to act morally or (2) they understand morality but simply disregard it when deciding how to act. In two studies, we tested these hypotheses by examining relations among the Dark Triad traits and a novel measure of moral normativity—a person's understanding of what is and is not a moral way to be—and general social normativity—a person's understanding of what is and is not a socially desirable way to be. Consistent with the first hypothesis, psychopathic individuals were less attuned to the morality of traits. Critically, their inability to understand what was socially desirable was attributable, at least in part, to an inability to understand what was moral. Those scoring high in Machiavellianism and narcissism showed no such deficits.

### 1. Introduction

In the *Handbook of Psychopathy and Law*, Borg and Sinnott-Armstrong (2013) outline two prevailing hypotheses for why psychopaths behave immorally. The first hypothesis, the *moral judgement hypothesis*, proposes that psychopaths are unable to understand morality and, as a consequence, are unable to behave in ways that most would consider moral. The second hypothesis, the *moral motivation hypothesis*, contends that psychopaths are able to understand morality but simply do not use these moral judgements to guide their behaviour. After reviewing the literature, Borg and Sinnott-Armstrong concluded, albeit tentatively, that psychopaths exhibit marginal deficits in moral reasoning and that the ostensibly immoral acts committed by psychopaths may be a result of a sort of moral apathy. They were emphatic, however, that future studies would need to be undertaken to further clarify this relationship.

The present study sought to both clarify and extend the literature by examining the relationship between each of the Dark Triad traits (Paulhus & Williams, 2002)—Machiavellianism, narcissism, and psychopathy—and a person's understanding of what is and is not a moral way to be, as well as what is and is not a socially desirable way to be. Although the Dark Triad traits appear to be linked by a common core of callousness (Jones & Figueredo, 2013; Marcus, Preszler, & Zeigler-Hill, 2018) and an agentic social style (Jonason, Li, & Teicher, 2010), each trait is conceptually distinct: Machiavellianism is characterized by

manipulativeness and cynicism (Christie & Geis, 1970); narcissism by grandiosity and entitlement (Raskin and Hall, 1979); and psychopathy by emotional vacancy and impulsivity (Paulhus, Neumann, & Hare, 2016). Given their unique features, each of the traits may be associated with a different understanding of what is moral and what is socially desirable. If there is any hope of developing interventions to combat the immoral behaviours of people with these traits, appreciating these differences is a crucial step.

#### 1.1. Disentangling morality and social desirability

Before we discuss the relations among the Dark Triad traits, morality, and social desirability, it may be helpful to describe why understanding what is moral is not necessarily the same thing as understanding what is socially desirable. Following established conventions, we use the term *social desirability* to describe any trait that is evaluated positively by others (e.g., Hampson, Goldberg, & John, 1987). For example, being attractive, friendly, mature, and witty would all be considered socially desirable qualities.

A clear definition of morality can be more of a challenge to narrow down, but Haidt (2008) offered a useful description of moral systems as “interlocking sets of values, practices, institutions, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make social life possible” (p. 8). According to this definition, a trait like generosity would be moral because it necessarily

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involves some degree of self-sacrifice and may, consequently, help facilitate social life. Intelligence, on the other hand, would not be a moral trait because it does not suppress or regulate selfishness, even if people believe it is socially desirable. A considerable amount of research has supported the idea that competence-related traits, such as intelligence, can be distinguished from moral traits, such as generosity (Rosenberg et al., 1968; Wojciszke et al., 1998; see also Cuddy et al., 2008). Additional research has also indicated that moral traits can be distinguished from a broader category of “warm” traits (Goodwin et al., 2014). Returning to the definition above, being sociable would not necessarily be a moral trait because, despite promoting social life, it does not involve self-sacrifice. This is all to say that a socially desirable trait—whether it be desirable to others because it signals competence, warmth, or attractiveness—is not necessarily a moral trait.

The obvious follow-up question, then, is whether a moral trait is necessarily a socially desirable trait. The latter part of the definition provided by Haidt (2008) (i.e., that moral systems make social life possible) would seem to imply that, yes, a moral trait is fundamentally socially desirable. This is not a particularly novel suggestion. The idea that morality provides a benefit to a person’s social group and would be, by that very fact, socially desirable is a shared feature of nearly all accounts of morality extended by evolutionary researchers (Boehm, 1982; Brosnan, 2011; Krebs, 2008; Tomasello and Vaish, 2013). Consistent with this notion, we consider moral traits to simply be one type of a broader set of socially desirable traits.

### 1.2. The Dark Triad, morality, and social desirability

Numerous studies have suggested that people with *dark personalities*, if not lacking morals entirely, have different moral constitutions. The Dark Triad, but most commonly psychopathy, has been associated with a host of immoral behaviours and beliefs, including lying (Baughman, Jonason, Lyons, & Vernon, 2014; Brewer, De Griffa, & Uzun, 2019; Jonason, Lyons, Baughman, & Vernon, 2014); cheating in relationships (Adams, Luevano, & Jonason, 2014; Alavi, Kye Mei, & Mehrinezhad, 2018; Brewer, Hunt, James, & Abell, 2015; Jones & Weiser, 2014), academics, (Nathanson et al., 2006; Williams et al., 2010), and sports (Nicholls, Madigan, Backhouse, & Levy, 2017); acts of sexual violence (Figueredo, Gladden, Sisco, Patch, & Jones, 2015; Jonason, Girgis, & Milne-Home, 2017; Kiire, 2017; March & Wagstaff, 2017; Zeigler-Hill, Besser, Morag, & Keith Campbell, 2016); abusing animals (Kavanagh, Signal, & Taylor, 2013); holding racist (Jones, 2013) or racism-adjacent beliefs (Jonason, 2015); and various other minor and major forms of criminality (Azizli et al., 2016; Chabrol, Bouvet, & Goutaudier, 2017; Lyons & Jonason, 2015; Modic, Palomäki, Drosinou, & Laakasuo, 2018). Fairly recent evidence has also suggested that people high in the Dark Triad are less morally developed (Campbell et al., 2009), find it easier to deviate from their moral principles (Egan, Hughes, & Palmer, 2015), and subscribe to different moral codes (Arvan, 2013; Bartels & Pizarro, 2011; Djeriouat & Trémolière, 2014; Karandikar, Kapoor, Fernandes, & Jonason, 2019; Marshall, Watts, & Lilienfeld, 2018).

Perhaps most relevant to the present study, however, is the three-part examination of the Dark Triad traits on moral and social values conducted by Jonason, Strosser, Kroll, Duineveld, & Baruffi, 2015. Jonason and colleagues concluded that Machiavellianism is associated with moral flexibility, as Machiavellian individuals required the least amount of incentives to say that they would engage in, if not immoral, morally-suspect acts (e.g., kicking a dog in the head, attempting to rig an election). People high in narcissism were, in contrast, deemed to be status-enhancing moralists, appearing to endorse morals in order to appear more desirable. Rather unsurprisingly, given that among the Dark Triad traits psychopathy is often the strongest predictor of engagement in immoral behaviours, psychopathy was associated with having a diminished sense of morality.

The relationship between the Dark Triad and social desirability as an individual differences descriptor has received considerably less

attention than morality. An impression can, nonetheless, be garnered from work investigating the relationship between the Dark Triad and socially desirable responding. The research tends to indicate that people high in Machiavellianism and psychopathy are less concerned with appearing socially desirable, whereas narcissistic individuals have generally, but not always (e.g., Auerbach, 1984; Watson, Grisham, Trotter, & Biderman, 1984), been found to be more concerned with appearing socially desirable (Gamache, Savard, & Maheux-Caron, 2018; Kowalski, Rogoza, Vernon, & Schermer, 2018; Womick, Foltz, & King, 2019). People scoring high in narcissism also seem to be more willing to endorse values that are in line with their group’s values (Jonason, Foster, Kavanagh, Gouveia, & Birkás, 2018) and engage in tactics aimed at appearing more desirable (e.g., over-claiming; Paulhus et al., 2003). These behaviours would be expected if a person was trying to appear more socially desirable.

We would also expect that trying to appear socially desirable would result in actually being perceived as more socially desirable. Narcissism is associated with positive first impressions (Paulhus, 1998) and is, among the Dark Triad traits, perceived the most favourably (Rauthmann & Kolar, 2012). As with individual differences in morality, it appears that each of the Dark Triad traits is differentially related to a concern with appearing socially desirable.

### 1.3. Moral normativity and general social normativity

The majority of the findings discussed above assessed morality using a self-report scale or, more specifically, the Moral Foundations Questionnaire (Graham et al., 2011). We have no objection to the use of the Moral Foundations Questionnaire, but, in the present study, we opted for a measure of morality and social desirability that directly assesses the association between what a person understands is a moral and socially desirable way to be and what the average person understands is a moral and socially desirable way to be.

Imagine a woman lives in a society where people differ on only two dimensions: kindness and dependability. If most people in that society believe kindness is moral, and the woman also believes kindness is moral, we might say that the woman is morally normative. In other words, what she believes is moral aligns with what the average person believes is moral. Likewise, if most people in the society believe dependability is desirable and the woman also believes dependability is desirable, we might say that the woman is high in general social normativity. What she believes is desirable aligns with what the average person believes is desirable.

Most of us do not live in the personality-equivalent of *Flatland*—the fictional two-dimensional world populated by lines and polygons that was thought up by Abbott (1884) to satirize nineteenth-century England. We are surrounded by people who differ in seemingly innumerable ways. Even so, the same general approach to that described above can be used to examine the degree to which people subscribe to norms concerning what is moral (i.e., moral normativity) and what is socially desirable (i.e., general social normativity). In doing so, we are able to capture, not only what an individual considers to be moral or socially desirable, but also how the individual’s beliefs about what is moral or socially desirable compare to what their peers believe is moral or socially desirable.

Normativity indices also benefit from having inherently meaningful units. Whereas a person who gets a 30 out of 30 on the Moral Foundations Questionnaire *could not* be said to be 100.00% moral, a person who gets the highest score on a measure of moral normativity *could* be said to endorse 100.00% of the moral norms of their group. Furthermore, since measures of moral normativity and general social normativity do not rely on a normative framework designed by researchers, it obviates the need to make decisions about what constitutes a moral error (see Pizarro and Uhlmann, 2005) and precludes the possibility that the assessment of morality represents a normative framework that is only present in certain cultures (see Iurino & Saucier,

2018).

#### 1.4. The current study

Turning to specific hypotheses, if Machiavellian individuals are morally flexible, we would expect them to have an intact sense of morality (i.e., Machiavellianism *would not* be negatively associated with moral normativity) but differ from the average person in what their conception of social desirability is (i.e., Machiavellianism *would* be negatively associated with general social normativity). Said another way, we believe the immoral acts perpetrated by people scoring high in Machiavellianism would be best explained by the moral motivation hypothesis. In terms of narcissistic individuals, we would expect them to be high in both moral normativity and general social normativity. Endorsing morals in order to appear more favourable would seem to require being especially sensitive to what society views as moral and socially desirable. Finally, if psychopaths suffer from a diminished sense of morality, we would expect them to be less morally normative and, being unable to recognize morality, less able to recognize what is and isn't socially desirable. In other words, we contend that the immoral behaviours exhibited by psychopathic individuals are best explained by the moral judgement hypothesis.

## 2. Study 1

In Study 1, participants rated how moral and socially desirable they believed 97 traits to be. By correlating the participants' 97 ratings with the average ratings of the 97 traits, we were able to create an index of moral normativity and an index of general social normativity. The participants' levels of the Dark Triad traits were assessed using the Dirty Dozen (Jonason & Webster, 2010). Two regression analyses and a mediation analysis were employed to explore the relations among the Dark Triad traits, moral normativity, and general social normativity.

### 2.1. Method

#### 2.1.1. Participants

Undergraduate students ( $N = 250$ ) at a large university in the Pacific Northwest were awarded research credit for completing an online survey. Participants who sped through ( $n = 1$ ) or straightlined ( $n = 1$ ) the survey were excluded from analysis. Participants identifying as neither a woman nor a man were also excluded in order to create gender-specific groups that were large enough to meaningfully compare ( $n = 5$ ).

The resulting sample comprised 243 students (71.19% women), ranging in age from 18 to 42 ( $M$  age = 19.68;  $SD$  age = 2.73). A power analysis indicated that a sample of this size would have an 88.67% possibility of correctly detecting a small effect when such an effect existed. Approximately 60.08% of participants identified as White or Caucasian, 17.70% identified as Asian or Asian-American, 9.05% identified as mixed race, and 8.64% identified as Hispanic, Latinx, or Spanish. The remaining 4.53% identified as some other ethnicity or preferred not to answer the question.

#### 2.1.2. Materials and procedures

Participants provided consent before completing the measures of moral normativity and general social normativity described below. The participants' levels of the Dark Triad traits were assessed immediately prior to demographic information being collected. The final page of the survey included a debriefing form.

**2.1.2.1. Moral normativity and general social normativity.** In order to assess moral normativity, participants rated 97 trait adjectives (e.g., prejudiced, quiet) on how moral they believed each adjective to be on a 9-point scale (1 = "very amoral for someone to act this way"; 9 = "very moral for someone to act this way"). The adjectives were drawn

from a survey administered in 2001 entitled *Dispositions and Views* (see Goldberg, 2008). To convert the morality ratings of the 97 words to a single moral normativity value for each participant, we used a similar process to that used by Bou Malham and Saucier (2016) to calculate cultural normativity scores. The process essentially involves conducting a profile similarity analysis (see McRae, 1993, 2008) between each participants' ratings of the 97 traits and the group's average ratings of the 97 traits.

First, we averaged the morality ratings of each word across all participants. The result was 97 values representing the average morality rating for each word. For example, *kindness* was considered the most moral of the traits ( $M = 7.56$ ,  $SD = 1.66$ ), *evilness* was considered the least moral of the traits ( $M = 7.56$ ,  $SD = 1.61$ ), and *shyness* was considered nearly perfectly amoral ( $M = 4.96$ ,  $SD = 1.16$ ). Overall, these values represent the moral norms of the group: The group's collective understanding of what is moral, immoral, and not moral at all.

In the second part of the procedure, the average ratings of the 97 words were transposed and correlated with each participant's ratings of the 97 words.<sup>1</sup> The single Pearson correlation coefficient that resulted for each participant indicated how close their ratings of the 97 words hewed to the average ratings of the 97 words. A coefficient of 1.00 would mean that a participant's ratings of the morality of the 97 words perfectly paralleled the average morality ratings of the 97 adjectives (i.e., perfect moral normativity); a correlation of 0.00 would indicate that there was no relation between a participant's rating of the 97 adjectives and the average rating of the 97 adjectives (i.e., no moral normativity).

The process was repeated to create an index of each participant's level of general social normativity. Participants rated the 97 words on how socially desirable they believed each word to be using a 9-point response scale (1 = "very undesirable for someone to act this way"; 9 = "very desirable for someone to act this way"), and their social desirability ratings of the words was correlated with the average ratings of the words. The average social desirability ratings of the 97 words in our sample was nearly perfectly correlated with the average social desirability ratings of those same 97 words in a 2001 community sample collected in Oregon ( $r = 0.96$ ,  $p < .001$ ) (see Goldberg, 2008). The average social desirability ratings of 47 of the words was also nearly perfectly correlated with the average social desirability ratings of those same 47 words in a 1993 student sample collected in Illinois ( $r = 0.98$ ,  $p < .001$ ) (see Saucier and Goldberg, 1998). This is all to say that there appears to be some evidence that the general social norms captured in our sample are generalizable to other American samples.

**2.1.2.2. Self-report Dark Triad.** Participants completed the Dirty Dozen measure of the Dark Triad (Jonason & Webster, 2010). The measure includes four items assessing each of Machiavellianism (e.g., "I tend to exploit others towards my own end.";  $\alpha = 0.74$ ), narcissism (e.g., "I tend to seek prestige or status.";  $\alpha = 0.70$ ), and psychopathy (e.g., "I tend to be callous or insensitive.";  $\alpha = 0.64$ ). Participants responded on a 5-point Likert scale (1 = "Do not agree at all"; 5 = "Completely agree").

## 2.2. Results and discussion

Descriptive statistics, gender comparisons, and intercorrelations among the Dark Triad traits, moral normativity, and general social normativity can be found in Table 1. Not accounting for shared

<sup>1</sup> As originally noted by Cattell (1949), the use of a simple correlation only allows researchers to make conclusions about the similarity of the shape of the profiles rather than differences in the elevations of the profiles. We have used simple correlations here because we are interested in the participants' ability to discern what is and isn't moral (shape), not the participants' overall moral reactivity (elevation).

**Table 1**

Descriptive statistics, gender comparisons, and intercorrelations for the Dark Triad traits, moral normativity, and general social normativity.

	Mean (SD)			<i>t</i>	<i>g</i>	Intercorrelations					
	Overall	Women	Men			1	2	3	4	5	
<i>Study 1</i>											
1. Machiavellianism	1.94 (0.78)	1.86 (0.74)	2.15 (0.83)	-2.57*	-0.36	-					
2. Narcissism	2.47 (0.79)	2.46 (0.78)	2.51 (0.82)	-0.49	-0.07	0.44**	-				
3. Psychopathy	1.80 (0.71)	1.68 (0.65)	2.09 (0.76)	-4.02**	-0.57	0.44**	0.19*	-			
4. Morality	0.68 (0.25)	0.71 (0.21)	0.61 (0.31)	2.39	0.34	-0.19*	0.04	-0.29**	-		
5. Desirability	0.76 (0.24)	0.78 (0.22)	0.70 (0.29)	2.04	0.29	-0.28**	-0.01	-0.35**	0.67**	-	
<i>Study 2</i>											
1. Machiavellianism	2.95 (0.56)	2.91 (0.58)	3.01 (0.53)	-1.34	-0.18	-					
2. Narcissism	2.93 (0.54)	2.83 (0.51)	3.08 (0.54)	-3.41**	-0.45	0.21**	-				
3. Psychopathy	2.33 (0.53)	2.22 (0.50)	2.50 (0.54)	-4.07**	-0.54	0.51**	0.37**	-			
4. Morality	0.70 (0.22)	0.73 (0.18)	0.65 (0.27)	2.48*	0.34	-0.02	-0.02	-0.25**	-		
5. Desirability	0.74 (0.28)	0.78 (0.23)	0.68 (0.35)	2.25	0.31	-0.01	-0.04	-0.18*	0.52**	-	

Note. \*  $p < .05$ , \*\*  $p < .01$ . *P*-values were adjusted for multiple comparisons using the Holm–Bonferroni method. *g* refers to Hedges' *g*.

variance among the Dark Triad traits, psychopathy showed a strong negative correlation with both moral normativity ( $r = -0.29$ ,  $p < .001$ ) and general social normativity ( $r = -0.35$ ,  $p < .001$ ). Machiavellianism also exhibited a moderate-to-large negative correlation with both forms of normativity (moral normativity:  $r = -0.19$ ,  $p = .013$ ; general social normativity:  $r = -0.28$ ,  $p < .001$ ), while narcissism was associated with neither moral normativity ( $r = 0.04$ ,  $p > 0.999$ ) nor general social normativity ( $r = -0.01$ ,  $p > 0.999$ ).

### 2.2.1. Predicting moral normativity

The participants' moral normativity scores were regressed on the participants' levels of the Dark Triad traits and, in order to account for previously demonstrated gender-related differences in the Dark Triad traits (Muris, Merckelbach, Otgaar, & Meijer, 2017), the participants' genders. The model explained a significant proportion of variance in moral normativity,  $R^2 = 0.12$ ,  $F(5, 233) = 8.10$ ,  $p < .001$ .<sup>2,3</sup> A person with an average level of Machiavellianism, narcissism, and psychopathy was associated with a moral normativity score of 0.70, 95% CI [0.67, 0.74],  $t(233) = 39.24$ ,  $SE = 0.02$ ,  $p < .001$ . Controlling for the other Dark Triad traits, every one-standard-deviation increase in narcissism was associated with a 0.04 greater moral normativity score (95% CI [0.01, 0.08],  $t(233) = 2.50$ ,  $SE = 0.02$ ,  $p = 0.013$ ), whereas every one-standard-deviation increase in psychopathy was associated with a 0.06 lower moral normativity score (95% CI [-0.09, -0.02],  $t(233) = -3.36$ ,  $SE = 0.02$ ,  $p < .001$ ). The effect of gender and Machiavellianism on moral normativity could not be ruled out as being due to chance ( $ps > 0.069$ ).

Partialling out shared variance among the Dark Triad traits can result in a sort of construct slippage whereby the partialled variable no longer represents the underlying construct (Vize, Collison, Miller, & Lynam, 2018). As such, Miller, Vize, Crowe, & Lynam, 2019 advised researchers to be cautious when interpreting the results of regression models that include the Dark Triad traits. Considering the results of the regression model in concert with the zero-order correlations, we can tentatively conclude that (1) Machiavellian individuals have an intact or moderately diminished sense of morality, (2) narcissistic individuals have an intact or slightly enhanced sense of morality, and (3) psychopathic individuals have an altogether diminished sense of morality.

<sup>2</sup> All models in the present paper showed negatively skewed residuals. Transforming the outcome variable did reduce the skew in the residuals, but resulted in the same general pattern of results while being substantially more difficult to interpret. We present the results of the unadulterated models here.

<sup>3</sup> A participant was flagged for having 35.32 times as much influence on the estimated regression line than the average participant (*Cook's D* = 0.16), but their exclusion did not meaningfully change the interpretation of the final model. We interpret the model using the complete dataset here.

### 2.2.2. Predicting general social normativity

The participants' levels of the Dark Triad traits and the participants' genders also explained a significant proportion of variance in general social normativity,  $R^2 = 0.18$ ,  $F(5, 233) = 12.56$ ,  $p < .001$ .<sup>4</sup> At an average level of Machiavellianism, narcissism, and psychopathy, a person was estimated to have a general social normativity score of 0.77, 95% CI [0.73, 0.80],  $t(233) = 44.31$ ,  $SE = 0.02$ ,  $p < .001$ . Accounting for the other Dark Triad traits, general social normativity decreased by 0.05 for every one-standard-deviation increase in Machiavellianism (95% CI [-0.09, -0.02],  $t(233) = -2.93$ ,  $SE = 0.02$ ,  $p = 0.004$ ) and increased by 0.04 for every one-standard-deviation increase in narcissism (95% CI [0.01, 0.08],  $t(233) = 2.66$ ,  $SE = 0.02$ ,  $p = 0.008$ ). General social normativity decreased by 0.07 for every one-standard-deviation increase in psychopathy, 95% CI [-0.11, -0.04],  $t(233) = -4.36$ ,  $SE = 0.02$ ,  $p < .001$ . The effect of gender was non-significant ( $p > 0.371$ ). Considering the results of the regression model in conjunction with the zero-order correlations would suggest people high in Machiavellianism and psychopathy are less attuned to what is and isn't socially desirable, whereas narcissistic individuals appear to have an intact or enhanced sense of what is and isn't socially desirable.

### 2.2.3. Moral normativity as a mediator

Using mediation analysis, we examined whether the association of narcissism and psychopathy with general social normativity could be explained by the participants' levels of moral normativity. The indirect effects were estimated using 10,000 bootstrapped samples and the participants' genders and levels of the other Dark Triad traits were entered as covariates. The effect of narcissism on general social normativity dropped from 0.04 (95% CI [0.01, 0.08],  $p = .002$ ) to 0.02 (95% CI [-0.01, 0.04],  $p = 0.130$ ) when the indirect effect of moral normativity ( $b = 0.03$ , 95% CI [0.01, 0.04],  $p = 0.002$ ) was excluded, a case of full mediation. These results seem to indicate that the heightened sense of what is and isn't considered socially desirable seen in narcissistic individuals is completely attributable to a heightened sense of what is and isn't considered moral. This result aligns with the notion that narcissists are status-enhancing moralists, at least when shared variance with Machiavellianism and psychopathy is taken into account.

Moral normativity partially mediated the relationship between psychopathy and general social normativity, dropping the direct effect of psychopathy on general social normativity from -0.07 (95% CI [-0.12, -0.03],  $p < .001$ ) to -0.04 (95% CI [-0.08, -0.00],  $p =$

<sup>4</sup> A different participant than in the moral normativity model was flagged for having 65.95 times as much influence on the estimated regression line than the average participant (*Cook's D* = 0.38). Again, their exclusion did not meaningfully change the interpretation of model estimates. The model using the complete dataset is presented here.



0.030) when the indirect effect was excluded ( $b = -0.03$ , 95% CI  $[-0.06, -0.01]$ ,  $p < .001$ ). In sum, it appears that some of the negative relationship between psychopathy and social desirability can be attributed to a lack of moral understanding, providing partial support for the moral judgement hypothesis.

### 3. Study 2

Consistent with the moral motivation hypothesis and the notion that Machiavellian individuals are morally flexible, Study 1 revealed that people high in Machiavellianism have either an intact or a moderately depressed understanding of what is and isn't moral, but depart from the average person in their understanding of what is and isn't socially desirable. In line with the idea that narcissistic individuals are status-enhancing moralists, narcissism was associated with an intact or slightly elevated sense of morality and social desirability. Psychopathy was, in contrast, associated with depressed levels of both moral and general social normativity, providing evidence in favour of the moral judgement hypothesis. In Study 2, we aimed to replicate our findings by employing a measure of the Dark Triad with better psychometric properties.

#### 3.1. Method

##### 3.1.1. Participants

Participants ( $N = 251$ ) were sampled from the same subjects pool as Study 1. After excluding participants who sped through the survey ( $n = 3$ ), straightlined the survey ( $n = 6$ ), or identified as neither a woman nor a man ( $n = 5$ ), the sample comprised 237 undergraduate students (61.60% women). Ages ranged from 18 to 37 ( $M$  age = 19.92;  $SD$  age = 2.32). A sample of this size would be able to detect a small effect, if one existed in the population, 87.89% of the time. The majority of participants, 60.34%, identified as White or Caucasian, 12.66% identified as mixed race, 11.81% identified as being Hispanic, Latinx, or Spanish, 7.17% identified as being Asian or Asian-American, and 8.02% identified as some other ethnicity or preferred not to answer.

##### 3.1.2. Materials and procedures

Participants began the survey process by providing consent. After completing the measures of moral normativity and general social normativity, participants completed an assessment of their Dark Triad traits. In the final section of the survey, participants provided demographic information and were debriefed.

**3.1.2.1. Moral normativity and general social normativity.** Morality normativity and general social normativity were assessed in a nearly identical fashion to Study 1. The only difference was the wording used in the response scale for the morality ratings. Rather than using a 9-point response scale that ranged from “very amoral for someone to act

this way” to “very moral for someone to act this way,” the scale ranged from “very immoral for someone to act this way” to “very moral for someone to act this way.” We wanted to make it clear that participants should be evaluating how immoral the word was, rather than the word's absence of a moral-valence. The average social desirability ratings of the words in our sample correlated nearly perfectly with the average social desirability ratings of those same words collected as part of a community sample in Oregon ( $r = 0.95$ ,  $p < .001$ ) (see Goldberg, 2008) and a student sample in Illinois ( $r = 0.98$ ,  $p < .001$ ) (see Saucier and Goldberg, 1998). The average social desirability ratings in Study 2 also showed a near perfect correlation with the average ratings in Study 1 ( $r > 0.99$ ,  $p < .001$ ).

**3.1.2.2. Self-Report Dark Triad Traits.** The Short Dark Triad (Jones & Paulhus, 2014) was used to assess the participants levels of Machiavellianism (e.g., “You should wait for the right time to get back at people.”;  $\alpha = 0.72$ ), narcissism (e.g., “I know that I am special because everyone keeps telling me so.”;  $\alpha = 0.69$ ), and psychopathy (e.g., “People who mess with me always regret it.”;  $\alpha = 0.70$ ). Responses were collected using a five-point Likert scale (1 = “Strongly disagree”; 5 = “Strongly Agree”). Although the Short Dark Triad has been used less than the Dirty Dozen, it has been shown to have greater construct validity (Maples, Lamkin, & Miller, 2013).

#### 3.2. Results and discussion

Consistent with Study 1, zero-order correlations also indicated that psychopathy was negatively associated with both moral ( $r = -0.25$ ,  $p < .001$ ) and general social normativity ( $r = -0.15$ ,  $p = 0.030$ ) (Table 1). No such relationship was found for Machiavellianism (moral normativity:  $r = -0.02$ ,  $p > 0.999$ ; general social normativity:  $r = -0.01$ ,  $p > 0.999$ ) nor for narcissism (moral normativity:  $r = -0.02$ ,  $p > 0.999$ ; general social normativity:  $r = -0.04$ ,  $p > 0.999$ ).

##### 3.2.1. Predicting moral normativity

A regression model was again constructed to predict the participants' moral normativity scores from their genders and their levels of the Dark Triad traits. In total, the model explained 8.67% of the variation in moral normativity,  $R^2 = 0.09$ ,  $F(5, 221) = 5.25$ ,  $p < .001$ . An average level of Machiavellianism, narcissism, and psychopathy was associated with having a moral normativity score of 0.72, 95% CI  $[0.69, 0.76]$ ,  $t(221) = 41.22$ ,  $SE = 0.02$ ,  $p < .001$ . Accounting for the other Dark Triad traits, every one-standard-deviation increase in psychopathy was associated with a 0.07 lower moral normativity score, 95% CI  $[-0.10, -0.03]$ ,  $t(221) = -3.84$ ,  $SE = 0.02$ ,  $p < .001$  (Table 2). The effect of gender, Machiavellianism, and narcissism on moral normativity could not be ruled out as being due to chance ( $ps > 0.076$ ). Evidenced by both the results of the regression model and the zero-order correlations, the only Dark Triad trait that appears to be

**Table 2**  
Regression models predicting moral normativity and general social normativity from participant gender and self-report Dark Triad traits.

	Morality					Desirability				
	<i>r</i>	<i>b</i>	$\beta$	<i>SE</i>	<i>t</i>	<i>r</i>	<i>b</i>	$\beta$	<i>SE</i>	<i>t</i>
<i>Study 1</i>										
Gender		-0.06	-0.12	0.06	-1.83		-0.03	-0.06	0.06	-0.90
Machiavellianism	-0.19*	-0.03	-0.13	0.08	-1.78	-0.28**	-0.05	-.21	0.07	-2.93**
Narcissism	0.04	0.04	0.17	0.07	2.50*	-0.01	0.04	0.18	0.07	2.66**
Psychopathy	-0.29**	-0.06	-0.24	0.07	-3.36**	-0.35**	-0.07	-0.30	0.07	-4.36**
<i>Study 2</i>										
Gender		-0.05	-0.12	0.07	-1.78		-0.09	-0.15	0.07	-2.20*
Machiavellianism	-0.02	0.03	0.12	0.07	1.67	-0.01	0.03	0.11	0.08	1.49
Narcissism	-0.02	0.02	0.10	0.07	1.37	-0.04	0.02	0.07	0.07	0.92
Psychopathy	-0.25**	-0.07	-0.31	0.08	-3.84**	-0.18*	-0.06	-0.22	0.08	-2.71**

Note. \*  $p < .05$ , \*\*  $p < .01$ .

associated with an inability to distinguish between what is and isn't moral is psychopathy.

### 3.2.2. Predicting general social normativity

The participants' levels of the Dark Triad traits and their genders explained 6.30% of the variation in general social normativity scores,  $R^2 = 0.06$ ,  $F(5, 221) = 12.56$ ,  $p = 0.006$ . An average level of Machiavellianism, narcissism, and psychopathy was associated with a general social normativity score of 0.78 for women (95% CI [0.73, 0.82],  $t(221) = 33.85$ ,  $SE = 0.02$ ,  $p < .001$ ) and a general social normativity score of 0.69 for men (95% CI [-0.16, -0.01],  $t(221) = -2.20$ ,  $SE = 0.04$ ,  $p = 0.029$ ) (Table 2). Accounting for the other Dark Triad traits, every one-standard-deviation increase in psychopathy was associated with having a general social normativity score that was 0.06 points lower, 95% CI [-0.10, -0.02],  $t(221) = -2.71$ ,  $SE = 0.02$ ,  $p = 0.007$ . The effect of Machiavellianism and narcissism on general social normativity could not be ruled out as being due to chance ( $ps > 0.138$ ). Akin to the results found for moral normativity, only psychopathy was negatively associated with general social normativity.

### 3.2.3. Moral normativity as a mediator

We again used 10,000 samples to estimate the indirect effect of psychopathy on general social normativity through moral normativity, while partialling out the other two Dark Triad traits and gender. As opposed to the partial mediation found in Study 1, moral normativity fully mediated the relationship between psychopathy and general social normativity: The direct effect of psychopathy on general social normativity dropped from  $-0.06$  (95% CI [-0.10, -0.02],  $p = .003$ ) to  $-0.02$  (95% CI [-0.05, 0.01],  $p = .208$ ) when the indirect effect ( $b = -0.04$ , 95% CI [-0.07, -0.02],  $p < .001$ ) was accounted for. It appears that people high in psychopathy are unable to accurately judge what traits are socially desirable due, in large part, to an inability to adequately judge what is and is not moral.

## 4. General discussion

Over the course of two studies, we examined the association between a person's level of Machiavellianism, narcissism, and psychopathy and their understanding of the morality and social desirability of traits. In Study 1, we used the Dirty Dozen (Jonason & Webster, 2010) to assess participants' levels of the Dark Triad traits, and, in Study 2, we used the Short Dark Triad (Jones & Paulhus, 2014). In both studies, participants' ratings of the morality and social desirability of 97 words was correlated with the average ratings of the morality and social desirability of those same 97 words to produce an index of the participants' moral normativity and general social normativity.

Consistent with our hypothesis that psychopathy would be associated with lower moral normativity and lower general social normativity, participants high in psychopathy appeared to be less attuned to the morality (Study 1  $\beta = -0.24$ ; Study 2  $\beta = -0.31$ ) and social desirability of traits (Study 1  $\beta = -0.30$ ; Study 2  $\beta = -0.22$ ). These results replicate extant research (e.g., Jonason, Strosser, Kroll, Duineveld, & Baruffi, 2015; Marshall, Watts, & Lilienfeld, 2018) by demonstrating that psychopathy is associated with a diminished sense of morality. In doing so, we also provided what we believe to be the first inherently meaningful index of the relationship between psychopathy and moral judgement: The relationship between what a person believes is moral and what the average person believes is moral is somewhere in the range of 0.06–0.07 lower for every one standard-deviation increase in psychopathy. Using a mediation analysis, we further extended the existing literature by showing that a diminished moral barometer may be one mechanism by which those scoring high in psychopathy do not understand what traits are and are not socially desirable. Consistent with what Borg and Sinnott-Armstrong (2013) termed the moral judgement hypothesis, psychopathic individuals may behave in undesirable ways due, at least in part, to a failure to understand what is and

isn't moral.

The findings for Machiavellianism and narcissism were less clear than for psychopathy. We hypothesized that Machiavellianism and its selective use of morality to achieve its goals would result in an intact sense of morality but a depressed sense of what is socially desirable. Our results were generally consistent with the first part of the hypothesis: There was no relationship between Machiavellianism and moral normativity (Study 1  $\beta = -0.13$ ; Study 2  $\beta = 0.12$ ). Those scoring high in Machiavellianism were also found to be less attuned to what is socially desirable in Study 1 ( $\beta = -0.21$ ), which aligned with the second part of the hypothesis. However, this result did not replicate in Study 2 ( $\beta = 0.11$ ).

Looking at the zero-order correlations, we see that Machiavellianism was negatively associated with moral normativity ( $r = -0.19$ ) and general social normativity ( $r = -0.28$ ) in Study 1, but not with either moral normativity ( $r = -0.02$ ) nor general social normativity in Study 2 ( $r = -0.01$ ). At least for Study 1, it does seem that the negative aspects of Machiavellianism were being tempered to some degree by partialling out shared variance with narcissism and psychopathy; although it should be noted that partialled Machiavellianism may actually be a truer reflection of the underlying construct than the raw variable (see Vize, Collison, Miller, & Lynam, 2018). More research needs to be done before we can conclude whether or not people high in Machiavellianism are less attuned to the morality and social desirability of traits than those scoring low in Machiavellianism. Potentially, Machiavellian individuals are sensitive to both moral and general social norms but are more willing than their non-Machiavellian counterparts to behave in ways counter to those norms. In this way, Machiavellians would be, not only flexible when it comes to what is a moral way to behave (Jonason, Strosser, Kroll, Duineveld, & Baruffi, 2015), but also flexible when it comes to what is a socially desirable way to behave.

Finally, we expected narcissism would be associated with an intact sense of morality and social desirability. An understanding of these norms would seem to be necessary to engage in self-enhancing moralism. Considering the results of the zero-order correlations and regression analysis together, narcissism was not negatively associated with either moral normativity (Study 1  $\beta = 0.17$ ; Study 2  $\beta = 0.10$ ) or general social normativity (Study 1  $\beta = 0.18$ ; Study 2  $\beta = 0.07$ ). In fact, narcissism showed a positive correlation with moral normativity and general social normativity in Study 1 when the other Dark Triad traits were partialled out. Consistent with the notion that those high in narcissism leverage morality to be perceived as more socially desirable (Jonason, Strosser, Kroll, Duineveld, & Baruffi, 2015), a mediation analysis indicated that the heightened levels of general social normativity in narcissistic individuals was completely explained by their levels of moral normativity.

We should, nevertheless, be cautious of these results. The positive relationship found between narcissism and moral normativity in Study 1 could be the result of construct slippage resulting from partialling out shared variance with the other Dark Triad traits. The zero-order correlation between narcissism and morality in Study 1 was positive ( $r = 0.04$ ) but to a degree that was non-significant. A conservative interpretation of the results would be that people high in narcissism are no less attuned to the morality and social desirability of traits than their non-narcissistic counterparts.

## 5. Limitations and future directions

Future studies investigating relations among the Dark Triad, moral normativity, and general social normativity should make use of full measures of the Dark Triad traits. Using longer measures would both minimize the partialling issues common to shorter measures (Vize, Collison, Miller, & Lynam, 2018) and allow for an examination of the individual components of the respective Dark Triad traits. Regarding this latter point, one alternative explanation for why narcissism showed

differential effects between Study 1 and Study 2 is the result of the different aspects of the construct that the two scales capture. The narcissism component of the Dirty Dozen (Jonason & Webster, 2010) appears to capture both grandiose and vulnerable aspects of the construct, whereas the narcissism component of the Short Dark Triad (Jones & Paulhus, 2014) appears to primarily assess grandiosity (Maples, Lamkin, & Miller, 2013). It is plausible that people high in vulnerable narcissism endorse morals in an attempt to boost their social desirability, whereas those high in grandiose narcissism, believing that they are innately socially desirable, do not feel the need to feign morality. This is purely speculative, of course, but it does illustrate the value of investigating the different components of narcissism in the context of moral normativity and general social normativity.

As with the moral judgement and moral motivation hypotheses (see Borg and Sinnott-Armstrong, 2013), the present study also assumed that perceptions of the morality and social desirability of traits can alter a person's behaviour. Specifically, we assumed that perceiving a trait to be moral or socially desirable would translate to an adoption of said trait and, subsequently, a change in the person's behaviour. A cursory consideration of the traits used in the present study should illustrate why this is a potentially problematic assumption. Many participants indicated that confidence and intelligence are highly socially desirable traits, but this does not mean that the participants are necessarily confident or intelligent. There are a number of factors other than whether a trait is moral or socially desirable that can impact their endorsement in self-description.

Having said that, those high in the Dark Triad may still behave in ways consistent with traits they perceive to be moral or socially desirable, even if they do not possess them. As a case in point, individuals high in narcissism seem to be able to put on a facade of intelligence (Paulhus, 1998) without actually being any more intelligent than non-narcissistic individuals (Kowalski et al., 2018). It is possible that people behave in ways consistent with moral and socially desirable traits, even if they are just doing so in order to cultivate a certain image. Nevertheless, future investigations would benefit from substantiating the relationship between normative beliefs and normative behaviours.

Another limitation is that both studies relied solely on samples from a western, educated, industrialized, rich, and democratic society (WEIRD; Henrich et al., 2010). Although the normative framework derived in the present sample appeared to be consistent across two states (Oregon and Illinois), two different types of samples (student and community), and 26 years, it is possible, and in fact likely, that the normative framework derived from the present sample would differ from the normative framework derived from a non-WEIRD sample. This is actually a useful feature of our measures of normativity. Since part of the process of calculating a person's normativity scores involves the estimation of the sample's normative framework, the normativity scores will always, irrespective of culture or sample, reflect the degree to which a person's understanding of morality or social desirability aligns with what the average person in their group believes is moral or socially desirable. The scale used here can, therefore, be used to compare the association between the Dark Triad traits and moral judgement across cultures without fear that the measure of morality is tied to any one culture.

The methodology does not, unfortunately, take into account the context in which the trait is employed nor the motivations underlying the trait. Both of these factors are liable to change what traits are considered moral and socially desirable. For example, a person who is being generous just to impress others would likely be considered less socially desirable (and less moral) than a person who is being generous out of a genuine empathy for the suffering of others. This example has particular relevance to the current study: Narcissistic individuals may not be as critical of this type of self-interested magnanimity as a person scoring low in narcissism would be. Continued investigation of trait by situation interactions (see Fleenor, 2004; Funder, 2006)—especially with respect to perceptions of those traits in others—is an area

deserving of much future research.

## 6. Conclusion

Using two different measures of the Dark Triad, we examined the relationships between Machiavellianism, narcissism, and psychopathy and a person's understanding of what is moral and what is socially desirable. Levels of Machiavellianism and narcissism appeared to have no consistent association with levels of moral normativity and general social normativity. Psychopathy, in contrast, was consistently associated with being less attuned to what the average person believed was moral and socially desirable. Consonant with the moral judgement hypothesis, this inability to understand what was and was not a socially desirable way to be could be attributed, at least in part, to a failure to understand what was and was not a moral way to be. In sum, the results suggest no single mechanism explains the ostensibly immoral behaviours of those with dark personalities. Researchers would be well advised to take into account the distinct nature of these mechanisms when forming theories about the relations among the Dark Triad traits, moral normativity, and general social normativity.

## Declaration of Competing Interest

None.

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