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# Personality and Individual Differences

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# From situational perceptions to personality pathologies \*



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Keywords: Personality Situations Perceptions Affordances Pathologies	Individual differences in how people perceive the world, might be important factors underlying their personality traits and pathologies. In the current study ( $N = 253$ ) we examined the associations between the maladaptive Big Five traits and perceptions of three situations (i.e., a bar, a classroom, and an office). Adversity was the most central perception linking the pathological personality traits followed by mating opportunities and deception. We also replicated previously reported sex differences in personality pathologies and revealed that men scored higher than women did on affordances of adversity and mating. We conclude that some of the affordances that people perceive in various situations might underlie individual differences in socially averse behavioral patterns.

## 1. Introduction

While there are many potential personality pathologies, the identification and measurement model of pathological manifestations of the Big Five traits (Krueger et al., 2012) offers opportunities to better understand broadband personality pathologies from a dimensional perspective. These pathological traits are analogues for the Big Five traits of emotional stability (i.e., negative affectivity), extraversion (i.e., detachment), agreeableness (i.e., antagonism), conscientiousness (i.e., disinhibition), and openness (i.e., psychoticism). Much is known about how these traits manifest (Mitchell et al., 2019; Vrabel et al., 2019) but less is known about the underlying cognitive processes associated with them. In this study, we focus on one type of cognitive system, systematic individual differences in perceptions of the social world.

With the emergence and validation of the D.I.A.M.O.N.D.S. (i.e., Duty, Intellect, Adversity, Mating, Positivity, Negativity, Deception, and Sociality) framework to understand how people understand and interact with the social world in a broadband fashion (Rauthmann et al., 2014), new opportunities present themselves to understand how these perceptual tendencies relate to personality traits (Jonason & Sherman, 2020; Serfass & Sherman, 2013) and behaviors like conformity with COVID-19 restrictions (Zajenkowski et al., 2020). It seems logical that perceptual regularities should lead to behavioral regularities in people's lives; behavioral regularities are essentially what many personality traits, including pathological ones, are (Fleeson, 2001). While prior studies have linked antisocial traits and the Big Five traits to patterns in perceptions of the world, no research we know of has examined how patterns in perceptions relate to broadband personality pathologies. In this study we link generalized and situation-specific manifestations of perceptual patterns, as captured in the D.I.A.M.O.N.D.S. model, with the maladaptive Big Five traits and examine sex differences in the perceptions.

Beyond prior empirical work linking perceptions to personality (Jonason & Sherman, 2020; Serfass & Sherman, 2013; Zajenkowski et al., 2020), there are at least three reasons to expect perceptions to be correlated with personality pathologies. First, at least one specific perceptual pattern-the hostile attribution bias-appears central in understanding various manifestations of personality pathologies and antisocial behaviors (Kokkinos et al., 2017). Second, the key message from cognitive behavioral therapy is that misperceptions of one's situations are key to creating problems in people's lives and correcting/ changing these perceptions is an essential part of the therapeutic process (Beck, 2011). Third, some evolutionary psychologists suggest that selection does not operate on behaviors or behavioral regularities but, instead, operates on underlying emotional, motivational, and cognitive systems that shape behaviors and behavioral regularities (Haselton et al., 2015). These selection pressures are in response to cost-benefit tradeoffs presented over recurrent, ancestral time like in terms of

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type-1 (e.g., seeing a threat/mating opportunity that is not there) and type-2 errors (e.g., failing to detect a threat/mating opportunity).

One way of understanding personality pathologies may be provided by life history theory which describes recurrent tradeoffs organisms have had to make to solve the problems of survival and mating (Figueredo et al., 2006; Jonason et al., 2019). While originally applied to between-species comparisons, the theory can be used to understand within-species differences in behavioral patterns. People characterized by personality pathologies may overperceive threats because doing so minimizes the risks of loss of life, status, and mates (Buss, 2009); similar arguments have been made about neuroticism and worry, that they may serve as overactive threat detection systems in their pathological manifestations but serve to maximize inclusive fitness in their nonpathological manifestations (Jonason & Perilloux, 2012; Nesse, 1991). That is, they may have hyperactive threat detection systems and those systems may create conflicts in peoples' lives because they wrongly assume they are in danger (Haselton et al., 2015). In addition, those with personality pathologies may overperceive mating opportunities too. If personality pathologies like antagonism and impulsivity are part of a "fast" life history mating strategy (i.e., geared to maximizing immediate sexual gains; Jonason et al., 2019) they may view the world with sexcolored glasses because it enables their mating strategy. Specifically, we predict that personality pathologies will be associated with situational perceptions of adversity and mating.

While the origins of sex differences are subject to considerable debate by learning theorists and evolutionary psychologists, there is substantial evidence for sex differences in (self-reported) personality traits and pathologies (Murray, 2020). For instance, women are more neurotic than men (Schmitt et al., 2008) whereas men are more antagonistic than women (Jonason et al., 2019) and thus we expect to replicate sex differences in personality pathologies here. We also expect two sex differences in situational perceptions. Men, more than women, may have conflict- and sex-colored glasses. When evaluating potential sexual opportunities men may have a stronger sex drive (Schmitt, 2005) which may translate into seeing sexual opportunities more. Given the evolutionary benefits and limited social sanctioning for aggression in men relative to women, men are more aggressive (Navarrete et al., 2010) which may translate into seeing potential adversity more.

In the current study, we attempt to better understand the role of systematic perceptual tendencies in accounting for variance in the maladaptive Big Five traits. We focus on pathological personality traits and contend that perceptual biases are one of the underlining cognitive systems responsible for the behavioral regularities captured in personality pathologies. We examine sex differences in the perceptions and traits, hoping to replicate sex differences in personality pathologies but to demonstrate there are sex differences in perceptions of social situations.

# 2. Method

## 2.1. Participants and procedure

The sample (72% white/Caucasian) was composed of 253 (40% men; 24% not in a committed relationship) Mechanical Turk workers (M = 37.08, SD = 11.52) aged 18 to 80 years who were paid US\$2.<sup>1</sup> Participants were informed of the nature of the study, provided consent via tick box, and, upon completion, were thanked and debriefed. Our sample size was based on a power analysis for the average effect size ( $r \approx 0.20$ ,  $\beta = 0.90$ ,  $\alpha = 0.05$ ) in personality psychology (Gignac & Szodorai, 2016) and guidelines (N > 200) set for reducing estimation error in personality psychology. This study was approved by the ethics committee at Oakland University (773846). This study was not pre-registered, but the

data is available on the Open Science Framework (osf.io/6cfyv/).

#### 2.2. Measures

To measure individual differences in the perceptions of situations, we replicated the method and materials used in Jonason and Sherman (2020). Participants were presented with a picture of a bar, a classroom, and an office (deemed common and "weak" situations for our sample: available on the OSF site), randomized for order with men and women present in the images, and asked to rate how much they agreed (1 =strongly disagree; 5 = strongly agree) with 24 items (three items per dimension) that were meant to describe the situations based on the S8\* (Rauthmann & Sherman, 2016) measure of the situational eight DI-AMONDS. Items for each dimension were averaged within each situation (see Appendix A) and further aggregated across the three situations to quantify general perceptions (see Table 1). Within each situation, internal consistency ranged from 0.66 to 0.91 while at the aggregated (cross-situational) level they ranged from 0.68 to 0.92. More critically, there was evidence for cross-situational consistency in perceptions across the eight D.I.A.M.O.N.D.S. dimensions: perceptions of the office and the bar correlated on average (r = 0.56; SD = 0.37), perceptions of the bar and classroom correlated on average (r = 0.55; SD = 0.35), and perceptions of the office and the classroom on average (r = 0.53; SD =0.38). The average ratings in each situation across different affordances were similar (Mean Cohen's d = 0.11; Range = 0.08 to 0.24). As such, they might reflect a situational perceptions are stable like other personality traits (Ziegler et al., 2019; Ziegler & Horstmann, 2015).

We assessed individual differences in pathological personality traits with the Personality Inventory for the DSM-5BF (Krueger et al., 2012). The scale is composed of 25 items—five items for each pathological personality trait—asking participants how true (0 = *very false*; 4 = *very true*) each item was in describing them in terms of their *antagonism* (e.g., "I use people to get what I want"), *psychoticism* (e.g., "My thoughts often don't make sense to others"), *detachment* (e.g., "I don't like to get too close to people"), *negative affectivity* (e.g., "I worry about almost everything"), and *disinhibition* (e.g., "People would describe me as reckless"). Items were averaged to create indexes of each (correlations reported in Appendix B).

#### 3. Results

First, we conducted a 2 (participant's sex) × 3 (situations) × 8 (affordances) mixed model ANOVA to explore situation-specific effects.<sup>2</sup> There was a main effect of situations (*F*[2, 502] = 29.74, p < .01,  $\eta_p^2 = 0.11$ ) and the analysis of simple effects suggested that the office context was rated higher (M = 3.07, SD = 0.40) than the bar (M = 2.88, SD = 0.45) and classroom (M = 2.94, SD = 0.43). There was also a main effect of affordances (*F*[7, 1757] = 446.62, p < .01,  $\eta_p^2 = 0.64$ ) and the *post hoc* analysis of simple effects revealed that intellect was rated the highest, followed by duty, negativity and sociality (equal), followed by deception, followed by positivity, followed by mating, and, finally, adversity had the lowest score (see Table 1 for means and SDs; all differences at p < .01).

We found a two-way interaction of situations  $\times$  affordances (F[7, 3514] = 437.24,  $p < .01, \, \eta_p^2 = 0.64;$  see Table 1 for means and SDs) suggesting that in the bar context, duty, intellect, and negativity were rated lowest, whereas mating, positivity, deception, and sociality were rated highest in the bar context in comparison to other two contexts. Additionally, we found that in the classroom context, intellect and negativity were rated higher, whereas positivity, deception, and sociality were rated lower than in the office situation. Adversity showed no differences across the three contexts. We also found different patterns of

<sup>&</sup>lt;sup>2</sup> All reported analyses are adjusted using the Bonferroni correction (i.e., the  $\alpha$  level divided by the number of tests on dependent variable).

#### Table 1

Descriptive statistics, internal consistencies (Cronbach's  $\alpha$ ), and sex difference tests for personality pathologies and situational perceptions in different contexts.

Situation	α	<i>M</i> (SD)		t	d	
perceptions		Overall	Men	Women		
Duty (overall)	0.70	3.45	3.42	3.47	-0.87	-0.11
		(0.45) 4.30	(0.45) 4.11	(0.47) 4.42		
-Office	0.85	(0.70)	(0.71)	(0.68)	-3.53*	-0.45
-Bar	0.91	1.67	1.89	1.53	3.23*	0.47
		(0.86) 4.38	(0.97) 4.25	(0.76) 4.46		
-Classroom	0.80	(0.69)	(0.71)	(0.67)	-2.35	-0.30
Intellect (overall)	0.68	3.68	3.63	3.72	-1.47	-0.19
		(0.49) 3.99	(0.50) 3.85	(0.48) 4.09		
-Office	0.84	(0.80)	(0.79)	(0.79)	-2.35	-0.30
-Bar	0.79	2.49	2.60	2.44	1.47	0.19
		(0.88) 4.56	(0.83) 4.45	(0.90) 4.65		
-Classroom	0.86	(0.65)	(0.70)	(0.62)	-2.38	-0.33
Adversity	0.92	1.42	1.61	1.30	3.60*	0.57
(overall)		(0.64) 1.49	(0.79) 1.69	(0.49) 1.36		
-Office	0.89	(0.78)	(0.98)	(0.60)	3.07*	0.48
-Bar	0.91	1.40	1.61	1.28	3.34*	0.53
		(0.71) 1.37	(0.90) 1.54	(0.53) 1.25		
-Classroom	0.88	(0.72)	(0.84)	(0.62)	2.95*	0.44
Mating (overall)	0.81	2.40	2.62	2.26	4.29*	0.54
		(0.67) 1.78	(0.71) 2.03	(0.62) 1.61		
-Office	0.77	(0.84)	(0.87)	(0.78)	4.00*	0.50
-Bar	0.81	3.37	3.38	3.38	< 0.01	< 0.01
Dui	0.01	(0.94)	(0.97)	(0.92) 1.79	0101	0.01
-Classroom	0.81	2.05 (0.95)	2.46 (0.99)	(0.84)	5.80*	0.73
Positivity	0.79	2.71	2.82	2.64	2.33	0.29
(overall)	0.79	(0.59)	(0.64)	(0.55)	2.33	0.29
-Office	0.78	2.48 (0.83)	2.71 (0.85)	2.35 (0.81)	3.43*	0.43
-Bar	0.86	3.72	3.68	3.72	-0.35	-0.04
-Dal	0.80	(0.83)	(0.86)	(0.85)	-0.33	-0.04
-Classroom	0.79	1.93 (0.79)	2.07 (0.88)	1.86 (0.72)	2.06	0.26
Negativity	0.82	3.36	3.31	3.40	1.04	0.12
(overall)	0.82	(0.64)	(0.66)	(0.61)	- 1.04	-0.13
-Office	0.88	3.55 (0.93)	3.44 (0.98)	3.61 (0.89)	-1.47	-0.19
	0.01	2.59	2.61	2.59	0.14	0.00
-Bar	0.91	(0.95)	(0.99)	(0.91)	0.16	0.02
-Classroom	0.88	3.96 (0.86)	3.89 (0.91)	3.99 (0.83)	-0.85	-0.12
Deception		(0.80) 3.09	3.15	3.05		
(overall)	0.89	(0.83)	(0.79)	(0.83)	0.94	0.12
-Office	0.85	3.04	3.10	2.99 (1.01)	0.82	0.10
		(1.00) 3.51	(0.98) 3.57	3.51		
-Bar	0.88	(1.01)	(0.91)	(1.04)	0.47	0.06
-Classroom	0.88	2.71	2.80	2.66	0.97	0.12
		(1.06) 3.48	(1.06) 3.48	(1.06) 3.50		
Sociality (overall)	0.76	(0.61)	(0.61)	(0.61)	-0.25	-0.03
-Office	0.66	3.87	3.82	3.93	-1.21	-0.15
		(0.73) 4.13	(0.75) 4.06	(0.70) 4.21		
-Bar	0.80	(0.74)	(0.72)	(0.70)	-1.63	-0.21
-Classroom	0.87	2.45	2.57	2.37	1.35	0.17
		(1.17)	(1.18)	(1.14)		
Personality		0.05	1 1 1	0.94		
Detachment	0.80	0.95 (0.71)	1.11 (0.74)	0.84 (0.68)	3.05*	0.39
Antagonism	0.79	0.61	0.86	0.43	5.72*	0.84
U U		(0.60)	(0.65)	(0.50)		
Disinhibition	0.83				3.46*	0.50

Table 1 (continued)

Situation	α	<i>M</i> (SD)		t	d	
perceptions		Overall	Men	Women		
		0.71 (0.66)	0.87 (0.72)	0.58 (0.56)		
Negative affectivity	0.78	1.10 (0.71)	0.99 (0.63)	1.15 (0.75)	-1.79	-0.23
Psychoticism	0.82	0.81 (0.60)	0.94 (0.69)	0.70 (0.64)	2.89*	0.36

Note. d is Cohen's d for effect size.

\* *p* < .01.

affordances between situations. Specifically, in the office the order was: duty, intellect, sociality, negativity, positivity, mating, and adversity; in the classroom, the order was intellect, duty, negativity, deception, sociality, mating, positivity, and adversity; in the bar, the order was sociality, positivity, mating, deception, negativity, and intellect (equal), duty, and adversity.

Most interestingly, we found a three-way interaction of sex × situations × affordances (*F*[14, 3514] = 6.65, p < .01,  $\eta_p^2 = 0.03$ ). Further analysis of simple effects revealed that the lack of sex differences in affordances of negativity, deception, and sociality held up in the three situations and the sex difference in affordances for adversity was present in all three situations. The lack of sex differences in affordances of duty and intellect did not hold up at the situation level. Women reported more duty than men did in the office and the classroom context whereas men reported more duty in the bar context. In addition, women reported more intellect in the office and classroom settings, suggesting that men may have an approach bias when in situations that are not sexually charged like the bar.

## 3.1. Correlations between affordances and personality pathologies

First, we report the correlations with the situational affordances averaged across situations (see Table 2). The pathological personality traits were all positively correlated with perceptions of adversity. Disinhibition, detachment, and antagonism were positively correlated with perceptions of mating opportunities. Antagonism was positively correlated with perceptions of positivity. Antagonism was negatively correlated with intellectual opportunities. There were few (<10%) cases of moderation of these effects by participant's sex (without controlling for Type 1 error inflation) which suggests these correlations were rather stable across the sexes.<sup>3</sup>

Second, we looked deeper at the correlations between personality and situational affordances in each situation (see Table 2). The most consistent correlations we observed were for adversity as all traits were positively associated with adversity across the three situations. In the case of mating, it was positively associated with most personality traits in the office and classroom. Less regular patterns concerned deception and positivity; they were generally associated with higher levels of the personality pathologies across situations. Furthermore, we found an interesting pattern of correlations regarding duty and intellect. Most of the personality traits were negatively associated with these affordances in the office and the classroom, whereas in the bar, there was a positive link between personality and duty and intellect.

## 4. Discussion

Examining life outcome sequalae like relationship patterns (Jonason

<sup>&</sup>lt;sup>3</sup> Details for the moderation tests are provided on the OSF site.

#### Table 2

Correlations between pathological personality traits and perceptions of situations.

	Di	А	De	Ν	Р
Overall duty	0.04	0.02	-0.03	0.02	0.03
°Office	$-0.17^{*}$	-0.20*	-0.14	-0.02	-0.16*
°Classroom	$-0.17^{*}$	$-0.22^{*}$	$-0.17^{*}$	-0.03	-0.11
°Bar	0.34*	0.37*	0.20*	0.07	0.27*
Overall intellect	-0.09	-0.13	-0.12	-0.02	-0.04
°Office	$-0.23^{*}$	$-0.22^{*}$	-0.18*	-0.03	$-0.19^{*}$
°Classroom	$-0.23^{*}$	-0.34*	$-0.17^{*}$	-0.02	-0.18*
°Bar	0.23*	0.23*	0.09	0.02	0.23*
Overall adversity	0.32*	0.49*	0.27*	0.20*	0.35*
°Office	0.30*	0.44*	0.21*	0.21*	0.29*
°Classroom	0.28*	0.44*	0.24*	0.17*	0.32*
°Bar	0.26*	0.39*	0.26*	0.13	0.30*
Overall mating	0.17*	0.32*	0.28*	0.04	0.11
°Office	0.23*	0.34*	0.30*	0.12	0.21*
°Classroom	0.17*	0.29*	0.30*	0.08	0.10
°Bar	-0.03	0.10	0.02	-0.11	-0.06
Overall positivity	0.10	0.24*	0.10	0.00	0.07
°Office	0.07	0.18*	0.06	-0.02	0.05
°Classroom	0.14	0.25*	0.18*	0.07	0.16*
°Bar	0.01	0.09	-0.03	-0.04	-0.04
Overall negativity	0.09	0.12	0.22*	0.17*	0.14
°Office	0.07	0.07	0.16*	0.15	0.13
°Classroom	-0.03	-0.01	0.02	0.08	-0.01
°Bar	0.14	0.17*	0.27*	0.12	0.15
Overall deception	0.14	0.19*	0.30*	0.06	0.15
°Office	0.16	0.16*	0.31*	0.11	0.17*
°Classroom	0.11	0.18*	0.18*	0.05	0.13
°Bar	0.08	0.10	0.23*	-0.02	0.07
Overall sociality	0.08	0.27	0.07	0.05	0.02
°Office	-0.01	-0.01	-0.01	0.02	-0.04
°Classroom	0.18*	0.18*	0.14	0.12	0.14
°Bar	-0.08	-0.10	-0.03	-0.09	-0.12

Note. De = Detachment, A = Antagonism, Di = Disinhibition, N = Negative Affectivity, P = Psychoticism.

\* *p* < .01.

et al., 2019, 2020) and morality (Vrabel et al., 2019) is one (common) way to understand pathological personality traits but an alternative is to understand what are the underlying systems that might lead to the traits. In this study, we examined how one kind of underlying system—perceptions of the social world—relate to pathological analogues of the Big Five traits. Given insights from life history theory (Figueredo et al., 2006), personality research (Schmitt et al., 2008), hostile attribution research (Zajenkowska & Rajchert, 2020), and cognitive behavioral therapy (Beck, 2011) we predicted that (1) personality pathologies should primarily be correlated with adversity and mating affordances, (2) men should be more antagonistic and disinhibited than women are and women should have more negative affect than men do, and (3) men should perceive more mating and adversity opportunities in social situations than women do.

First, adversity was the most central feature to understand the pathological personality traits. Adversity describes to what extent people feel they are threatened, blamed, or criticized in a particular situation (Rauthmann & Sherman, 2016; Rauthmann et al., 2014). Hostile perceptions of situations lead to socially aversive patterns of behavior (Klein Tuente et al., 2019). Some individuals (e.g., scoring high on trait anger or trait aggression) are more susceptible to interpret ambiguous behavior of others as hostile, threatening, and intentionally harmful (Zajenkowska & Rajchert, 2020). Individuals with pathological personalities seem to feel endangered, threatened, and blamed regardless of the external circumstances. Thus, hostile perceptions of the world might be the crux of at least these socially aversive personality traits. Such perceptions may serve as stable individual differences (Ziegler et al., 2019; Ziegler & Horstmann, 2015) that protect people from real and imagined threats.

Second, many of the pathological traits were associated with

affordances of mating, which suggests that people with such traits tend to perceive more sexual opportunities in everyday situations, but this was localized to the place one ostensibly wants to avoid romantic/sexual entanglements (i.e., primarily in the workplace, followed by the classroom, and then the bar). While a bar is a logical, reasonable, and socially acceptable place to find sexual opportunities (Gladue & Delaney, 1990; Jonason et al., 2015), the tendency for those characterized by personality pathologies to see sexual opportunities (instead of duty) at work or in class might have implications for sexual harassment and workplace productivity; a conjecture in need of further testing. Such evidence suggest that perceptions of mating opportunities may be more sensitive to contextual variance than adversity, which is inconsistent with the idea that affordances are stable individual differences (Ziegler et al., 2019; Ziegler & Horstmann, 2015).

Third, two unexpected findings emerged. The traits (apart from negative affectivity) were associated with affordances of deception, and antagonism was associated with more positivity which both corroborate and extends previous findings on Dark Triad traits (Jonason and Sherman, 2020; Zajenkowski et al., 2020). To the former, it might be a more general tendency to perceive more opportunities to manipulate others by lying, to use dishonesty, and engage in other deceptive behaviors in people with pathological traits. To the latter, a positivity bias might reveal that these people are not suffering from emotional disturbances and may even have an approach orientation towards social situations. Nevertheless, both require more work to understand them.

And lastly, we replicated sex differences in pathological personality traits (Jonason et al., 2019) but also showed that men may see the world in more sexualized and conflict-laden ways than women do. Such perceptions may be responsible for various acts of physical and sexual aggression some men perpetrate. Interestingly, men's tendency to read adversity into situations was constant across situations whereas their tendency to read mating opportunities into situations only applied to the office and classroom settings. In sexually charged situations, they may make fewer errors because the situation and their perceptual biases match or are, at least, less at odds. However, in the classroom or in the workplace, some men may have a mismatch that creates the recipe for sexual harassment cases and other, similar problems.

## 4.1. Limitations and Conclusions

While this study is novel and methodologically strong, it was limited. First, we relied on a W.E.I.R.D. sample. Second, the method to test perceptions requires (1) far more psychometric work, (2) a more concerted appraisal and comparisons for weak as opposed to strong situations as moderators, and (3) a wider array of potential situations evaluated to better capture a generalized tendency. Third, there are many other relevant pathological (e.g., sadism, spitefulness) and nonpathological (e.g., sociosexuality, authenticity) traits worth considering. Fourth, we treated situational affordances/perceptions as upstream features, but experimental work is required to better test this assumption. And fifth, our results are leveraged on hypothetical situations. While the locations are real places that our sample is likely to have at least (if not more as a sample of Americans) of a passing familiarity with, they are engaged in hypothetical responses instead of physically being in the location. Said another way, our method may lack ecological validity. Future research might embed people in situations or ask about more acute situations like salient events in people's lives like COVID-19 (Zajenkowski et al., 2020).

Nevertheless, we have shown adversity and mating are central perceptions to understand personality pathologies. This association seems to be consistent across traits and situations for adversity but less so for mating, with null correlations for the bar situation. We replicated sex differences in personality pathologies, suggesting men are more detached, antagonistic, disinhibited, and psychotic than women are. We also showed that men tend to view social situations as containing more opportunities for mating and adversity than women. While researchers are rightly interested in what pathological traits lead to in hopes of reducing suffering, an examination of the systems that uphold those traits might provide better applied and basic insights into the nature of the traits themselves and those characterized by them.

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#### **Ethical approval**

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

#### Informed consent

Informed consent was obtained from all individual participants included in the study.

# Author contribution

PKJ developed the measure and methods, was the primary author of the paper, and secondary author of the results. MZ was the primary author of the results and a secondary author of the paper. ML supported the first two authors in data analysis and writing.

#### Declaration of competing interest

All authors declare no conflicts of interest.

# Appendix A. Descriptive statistics for perceptions of situations per context

Situation perceptions	Office			Bar			Classroom		
	Mean	SD	α	Mean	SD	α	Mean	SD	α
Duty	4.30	0.70	0.85	1.67	0.86	0.91	4.38	0.69	0.80
Intellect	3.99	0.80	0.84	2.49	0.88	0.79	4.56	0.65	0.82
Adversity	1.49	0.78	0.89	1.40	0.71	0.91	1.37	0.72	0.88
Mating	1.78	0.86	0.77	3.37	0.94	0.81	2.05	0.95	0.81
Positivity	2.48	0.83	0.78	3.72	0.83	0.78	1.93	0.79	0.79
Negativity	3.55	0.93	0.88	2.59	0.95	0.91	3.96	0.86	0.88
Deception	3.04	1.00	0.85	3.51	1.01	0.88	2.71	1.06	0.88
Sociality	3.87	0.73	0.66	4.13	0.74	0.80	2.45	1.17	0.87
Grand mean	3.06	0.83	0.82	2.86	0.87	0.85	2.93	0.86	0.84

Note. Cross-situational perceptions (on diagonal) were correlated (rMean = 0.55) but cross-affordance perceptions (off diagonal) were essentially uncorrelated (rMean = 0.11).

## Appendix B. Correlations among the personality pathologies (top panel) and situation perceptions (bottom panel)

	1		2		3		4		5		
1. Detachment	-										
2. Antagonism	0.39*		-								
3. Disinhibition	0.48*		0.55*		_						
4. Negative affectivity	0.49*		0.35*		0.47*		-				
5. Psychoticism	0.55*		0.54*		0.65*		0.57*		-		
	1	2		3		4		5		6	7
1. Duty	_										
2. Intellect	0.63*	-									
3. Adversity	-0.06	$-0.27^{*}$		-							
4. Mating	0.03	0.08		0.22*		-					
5. pOsitivity	0.26*	0.27*		0.17*		0.46*		_			
6. Negativity	0.22*	0.17*		-0.04		0.24*		-0.04		-	
7. Deception	0.14	0.09		0.09		0.44*		0.09		0.61*	_
8. Sociality	0.44	0.52*		-0.11		0.34*		0.40*		0.33*	0.36

p < .01.

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