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The Dark Side of Human Values: How Values are Related to Bright and Dark Personality Traits

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Abstract. In the present research, we replicate and extend previous findings on the relations between human values and bright\dark traits of personality, using the functional theory of human values (Gouveia, 2013). Specifically, we assessed which dark traits are associated with human values and whether the dark traits explained variance in values beyond the bright traits (Big Five). While prior research has investigated the relations between the three sets of constructs mainly in Western countries, we tested whether the findings hold in Brazil (*N* = 819). Although values are defined as positive constructs, several value subfunctions were positively correlated with the dark traits (e.g., excitement values with narcissism), while other relations were negative. Controlling for participants' age and gender, hierarchical regressions further revealed that dark traits explain variance in values beyond bright traits, although overall bright traits were more strongly associated with values than dark traits. Together, our findings replicate previous research. Implications for our understanding of the Dark Triad and cross-cultural research are discussed.

Human values are important psychological constructs, which are relevant in many scientific fields such as psychology, philosophy, sociology, and political sciences (Maio, 2016). They are usually defined as guiding principles in our life (Gouveia, 2013; Schwartz, 1992), and are therefore considered as positive constructs (Hitlin & Piliavin, 2004). However, more recent research has revealed a 'dark side' of values: Some values were found to be positively associated with a range of rather undesirable outcomes. Examples include positive correlations of values with depression, stress (Hanel & Wolfradt, 2016), alcohol consumption (Inman et al., 2017), attitudes towards drugs (Coelho et al., 2020), and the so-called Dark Triad of personality (Balakrishnan et al., 2017; Jonason et al., 2015; Kajonius et al., 2015). In the present research, we use a large sample to assess the relations between human values and both bright and dark personality traits, using the functional theory of human values (Gouveia et al., 2014a; Gouveia, 2013). Replicating and extending the

findings from prior research (Jonason et al., 2018; Kajonius et al., 2015; Monteiro, 2014), we also examined whether dark personality traits explain variance beyond the bright personality traits. This unique effect has been scarcely documented in some Western, but not in any non-Western sample yet.

Human Values

Human values can be defined as "concepts or beliefs, that pertain to desirable end states or behaviors, transcend specific situations, guide selection or evaluation of behaviors and events, and are ordered by relative importance" (Schwartz, 1992, p. 4). Most studies published in the past decades have relied on Schwartz's (1992) circumplex model of human values. The author postulated and found across 80 countries (Schwartz, 2012) that values can be ordered in a quasi-circumplex model along a motivational continuum. In the most often cited version of his value model, Schwartz (1992) distinguishes between 10 value types, spread across

four higher-order values: Self-enhancement (achievement and power values), conservation (security, tradition, and conformity values), self-transcendence (benevolence and universalism values), and openness to change (self-direction, stimulation, and hedonism values).

More recently, Gouveia proposed an alternative values model that focuses more on their functional aspects (Gouveia, 2013; Gouveia et al., 2014a) and is based on Maslow's (1954) hierarchy of needs. Gouveia et al. (2014a) argue that this theory is more parsimonious when compared to Schwartz's structure (which presented multiple configurations over the years), also presenting a theory-driven approach, which helps to explain the functions that values fulfill in our lives. This functional theory assumes that values can be ordered along two dimensions: Goals and needs. The first dimension outlines personal, central, and social goals. The second dimension distinguishes between survival and thriving needs. Taken together, this model presents six value subfunctions in a 3 x 2 structure (Figure 1; Gouveia et al., 2014a): *excitement*, representing the physiological need for variety and pleasure; *promotion*, typical in individuals guided for personal and material accomplishments; *suprapersonal*, representing the need of aesthetics, cognition, and self-actualization; *existence*, representing the basic conditions for individual's

biological and physiological survival; *interactive*, representing values that are essential in regulating, establishing, and maintaining interpersonal relationships; and *normative*, typical in individuals who tend to look for security and control.

Although there are some discrepancies between Gouveia's (2013) and Schwartz's (1992) models of human values, both value theorists agree that the content of the values shares large similarities (Gouveia et al., 2014b; Schwartz, 2014). For instance, promotion of Gouveia's theory overlaps with achievement and power in Schwartz's model, excitement overlaps with stimulation, normative with tradition and conformity, interactive with benevolence, existence with security, and suprapersonal with universalism and self-direction. In the present study, we focus on the functional theory of human values because of its prominence in Brazil (Fischer et al., 2011; Gouveia, 2013; Gouveia et al., 2015) and to provide convergent evidence to previous research. Below, we briefly review the literature on the relations between values and both bright and dark personality traits.

Human Values and Personality Traits

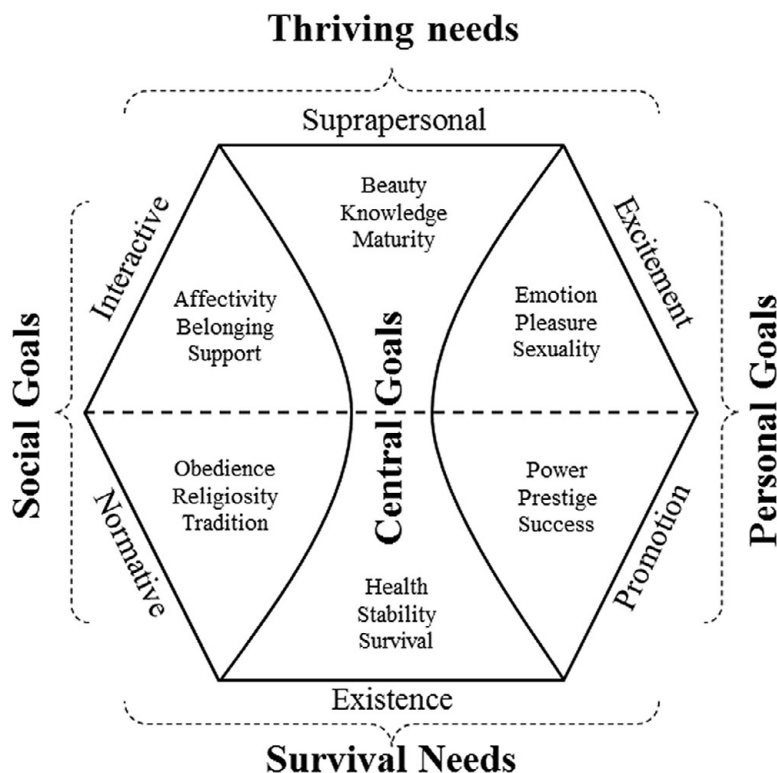The relations between bright personality traits and human values are widely studied because both sets of

Figure 1. The Structure of Human Values according to the Functional Theory.
Note. Continuous lines separate goals and the dashed lines separate needs. Adapted from Araújo et al. (2020).

constructs are key concepts in the psychological literature. They are similar, but also show important differences: Traits are broad descriptions of stable patterns of behavior whereas values are stable life goals and abstract ideals (Parks-Leduc et al., 2015). In a meta-analysis conducted by these authors, the trait openness to experience was positively linked to openness to change values (which shares elements of excitement values in Gouveia's functional theory) and negatively with conservation values (normative and existence values); agreeableness was positively associated to self-transcendence (interactive and suprapersonal values) and some conservation values, and negatively with power values (promotion values); extraversion was positively correlated with self-enhancement (promotion values) and some openness to change values (excitement values); conscientiousness was positively associated with achievement (promotion values) and conservation values (normative and existence values). Neuroticism was unrelated to all values.

Most prior research has focused on the relations between personality and human values using the Big Five model of personality, whereas the relations between values and the dark triad were only studied in a limited amount of previous research (Balakrishnan et al., 2017; Jonason et al., 2018; Kajonius et al., 2015). This is important because the Big Five model does not cover the dark aspects of personality (Jonason & Middleton, 2015). Even with the increase in the interest of studying the dark traits of personality in this century, their links with human values are not deeply explored. In fact, only recently these constructs started to be studied together (Balakrishnan et al., 2017; Jonason et al., 2018; Kajonius et al., 2015). The Dark Triad emerged from the literature of aversive personality traits and consists of three correlated dimensions (Paulhus & Williams, 2002): Machiavellianism, which describes strategic and manipulative people, who are callous, have long-term objectives and the capacity to delay gratification (Jones & Paulhus, 2009; Miller et al., 2017); psychopathy, which describes individuals who have a lack of remorse or empathy, being impulsive and thrill-seeking (Jones & Paulhus, 2011; Patrick et al., 2009); and narcissism, which describes individuals that have a grandiose and unrealistic self-concept, with a sense of entitlement and superiority (Wink, 1991). It has recently been argued that the common factor of the dark triad is almost identical to the lower end of the HEXACO honesty-humility factor (Hodson et al., 2018). This suggests that the dark triad reflects a deceiving and egoistic approach to interpersonal relations (Miller et al., 2019).

One of the first studies that have investigated the link between Schwartz's values, the Big Five personality dimensions, and the Dark Triad was conducted by Kajonius et al. (2015). Using samples from Sweden and the USA ($N = 385$), the authors found that Machiavellianism, narcissism, and psychopathy consistently showed positive correlations with self-enhancing values (achievement and power). On the other hand, values with an interpersonal or humanitarian focus showed negative relations with the dark traits (e.g., universalism, benevolence). The effects of conservation values (security, conformity, and tradition) were also all negative but weaker. The relations of openness values with the Dark Triad was mixed: Hedonism and stimulation correlated positively, self-direction negatively. Of interest, the Dark Triad explained variance in values beyond the Big Five, especially in self-enhancement and self-transcendence values. These results were also replicated in Canadian, German, and other US-American samples (Balakrishnan et al., 2017; Jonason et al., 2015). Further, honesty-humility moderated the relations between some Dark Triad dimensions and value dimensions. Specifically, the effects of psychopathy and narcissism on self-enhancement/openness to change values (these values were collapsed into a single dimension) were stronger for participants with low scores on honesty-humility (Balakrishnan et al., 2017).

In another study, Rogoza et al. (2016) found positive associations of admiration (maintaining grandiose-self through self-enhancement) with achievement, hedonism, self-direction, stimulation, and power values. On the other hand, rivalry (maintaining a grandiose-self through self-defense) was only related to power values. These results suggest that for narcissistic individuals these values play an important role in the maintenance of their grandiose self-concept.

Overall, stimulation, hedonism, achievement, and power were positively associated with the Dark Triad. These values represent the personal focus in Schwartz's (1992) theory, and therefore represent how individuals express personal interests and characteristics. On the other hand, significant negative associations were found for values such as tradition, conformity, security, benevolence, and universalism. These values have a social focus, representing how individuals relate to others. Therefore, the associations between the Dark Triad and values with a personal focus can be explained by the fact that the Dark Triad has a very strong personal focus by definition (e.g., self-centered, manipulative, lack of empathy; see Jonason & Webster, 2010; Paulhus & Williams, 2002).

Some studies have also investigated the relations between the Dark Triad and human values as operationalized through the functional theory of human values. These studies showed similar results to the ones of Schwartz's model. For instance, in a Brazilian sample, psychopathy was positively related to values from personal orientation (promotion and excitement), and negatively to values from social orientation (interactive and

normative; Monteiro, 2014). In this study, however, Monteiro did not explore the relations of values to the other two traits from the Dark Triad. In a cross-cultural study, using samples from the USA, Brazil, and Hungary, this pattern was replicated (Jonason et al., 2018). Further, psychopathy was found to be negatively associated with existence (central value), while Machiavellianism was negatively related to interactive and normative values (social values). Interestingly, narcissism was positively correlated with suprapersonal (central value), and interactive and normative (social values). This pattern is different from the pattern found by Kajonius et al. (2015) using Schwartz's model. Also, deviating from Kajonius et al.'s (2015) analytical approach, the studies using the functional theory of human values did not test whether the dark triad explains variance in values above and beyond the bright traits.

The Present Research

Across Gouveia's and Schwartz's value models, the relations between values with personal orientation and Dark Triad are consistent. Therefore, two main goals were established in our research. Firstly, we aimed to replicate previous research examining the relationship between traits (dark and bright) and human values (Jonason et al., 2018; Kajonius et al., 2015; Monteiro, 2014; Parks-Leduc et al., 2015). Secondly, we add to the literature by assessing whether the Dark Triad explains variance in values beyond the variance explained by bright traits in a large Brazilian sample.

This second goal has been scarcely examined with Schwartz's dimensions of values in Western countries (Kajonius et al., 2015) and has not yet examined for the values from Gouveia's functionalist perspective or in non-Western countries. Examining non-Western countries is important because a range of findings using Western samples was not replicated in non-Western countries (Henrich et al., 2010). Indeed, a meta-analysis found that the relations between values and traits are on average weaker in countries with greater financial and ecological threats (Fischer & Boer, 2015), which is a typical characteristic for many non-Western countries such as Brazil. Given the strong theoretical links between bright and dark traits (Paulhus & Williams, 2002), we believe this pattern of results found by Fischer and Boer extends to the Dark Triad.

It is important to investigate the Dark Triad in different cultural contexts because they are seen as an adaptation to ecological conditions (Jonason et al., 2016). A context in which laws are interpreted more flexibly and authorities are more corrupt may give rise to behaviors associated with the Dark Triad. Thus, Brazil, a country that ranks only 105 from the least to the most corrupt country (Transparency International, 2018), is (unfortunately) a good place to study the Dark Triad. The environment in Brazil is unstable, with a high crime rate, violence, precarious health system, and unemployment rate compared to the majority of countries in which the relations between values and Dark Triad were studied. Furthermore, there are specific cultural features in Brazil that may affect the relations between values and dark personality traits and may shape the expression of both, such as "Brazilian jeitinho", a popular construct in psychological research in Brazil. One central aspect of Brazilian Jeitinho is the breaking of social rules and corruption (Ferreira et al., 2012). So, Brazil is a context in which people presumably need to rely more often on deceptive and transgressive behaviors than in Western countries, and take advantage of others (Miura et al., 2019). Thus it is possible that the Dark Triad, characterized as cheating and exploitative strategies (Baughman et al., 2014), has a stronger impact on values than in more stable (Western) countries.

Finally, the correlation coefficients between values and the Dark Triad of the studies published in Western countries using Schwartz's (1992) model of values (Balakrishnan et al., 2017; Jonason et al., 2015; Kajonius et al., 2015) were somewhat stronger than those obtained in non-Western countries through the functional theory of human values (Jonason et al., 2018; Monteiro, 2014). While this can happen because of cultural factors as outlined by Fischer and Boer (2015) or the ways values were operationalized, it highlights the importance of replications.

Method

Participants and Procedure

Eight-hundred nineteen participants, mostly women (64.9%), with an age range from 15 to 66 years ($M = 25.60$; $SD = 6.68$), answered an online questionnaire about personality and human values. The data was collected online, with the link shared through social media, using the snowball technique. Participants were first informed about the aims of the study, that their responses were anonymous, and that their participation was voluntary. Next, participants provided informed consent. On average, participants took 10 minutes to complete the study.

Material

To estimate the Dark Triad of personality, we used the Brazilian version (Gouveia et al., 2016) of the Dirty Dozen (Jonason & Webster, 2010). This 12-item scale measures each of the Dark Triad dimension with four items. Participants were asked to indicate to what extent they agree with items such as "*I tend to manipulate others*

to get my way" (Machiavellianism), "*I tend to lack remorse*" (psychopathy), and "*I tend to seek prestige or status*" (narcissism). Responses were given on a 5-point scale (1 – *Strongly disagree*; 5 – *Strongly agree*).

Five factors of personality were measure with The Big Five Inventory (John et al., 1991). Originally composed of 44 items, we used a 20 items version. To create this short version, we selected the four items with the highest loadings of each factor (Schmitt et al., 2007), with satisfactory internal consistency (Kline, 2013). Participants indicated on a 5-point scale (1 – *Totally disagree*; 5 – *Totally agree*) whether items such as "*Is talkative*" (extraversion) and "*Has a forgiving nature*" (agreeableness) describe themselves.

The individual differences in human values were measured through the Basic Values Survey (Gouveia et al., 2008). The measure is composed of 18 items or specific values, equally distributed to six factors or value subfunctions: Excitement, promotion, suprapersonal, existence, interactive, and normative. Participants were asked to indicate the level of importance (1 – *Completely unimportant*; 7 – *Of the utmost importance*) of the values as guiding principles in their lives. Example items are "*Power. To have the power to influence others and to control decisions; to be the boss of a team*" (promotion); "*Affectivity. To have a deep and enduring affectionate relationship; to have somebody to share successes and failures*" (excitement).

Descriptive statistics and coefficient reliability can be seen in Table 1. Results showed satisfactory reliability for all traits of the Big Five and Dark Triad models, but reliability slightly lower than .70 was found for human values. However, reliability is commonly low in value measures (e.g., Gouveia et al., 2014a; Schwartz, 2005) because a small number of items is used to cover a wide range of content (Knoppen & Saris, 2009). Although the dimensions are not homogeneous enough to achieve high reliability, human values have been used as an important construct in the social and cross-cultural psychology literature (Araújo et al., 2020; Gouveia et al., 2014a; Vilar et al., 2020). The coefficient of reliability was McDonald's omega (ω) assessed using a MACRO available for SPSS (Hayes & Coutts, 2020).

Data Analysis

One analytical deviation from the research conducted with Schwartz's values is that we did not center the value scores on an individual level. In prior research, Kajonius et al. (2015) claimed that this would be necessary "to control for differences in individual response patterns" (p. 175). This claim is in line with a range of studies relying on Schwartz's value theory (e.g., Parks-Leduc et al., 2015; Schwartz et al., 2001). However, to the best of our knowledge the claim that centering (or ipsatizing) controls for differences in individual

response pattern have not been empirically supported. In contrast, a range of recent studies has questioned the usefulness of centering (He & van de Vijver, 2015), as it removes meaningful variance (Borg & Bardi, 2016) and reduces the reliability of the scale (He et al., 2017). Further, centering reduces the cross-study comparability because if a researcher only measures some but not all value types, centering is not possible. Moreover, a clear rationale is missing why researchers assume that only values need to be centered to control for differences in response patterns but not personality traits. Finally, and most relevant to the present project, no study relying on the functional theory of human values we are aware of has centered value subfunctions, as Gouveia (2013) rejects the claim that values can be opposing (without centering there are also no negative correlations between values in Schwartz's model).

To test whether the dark traits explain variance in values above and beyond the bright traits, we performed multiple hierarchical regression controlling for age and gender, because they were found to be associated with values (Gouveia et al., 2015; Robinson, 2013; Schwartz & Rubel, 2005; Vilar et al., 2020) and personality traits (Costa et al., 2001; Milojev & Sibley, 2014). These two demographic variables were thus added in the first step of the hierarchical regression. Bright and dark personality traits were then added in the second and third steps, respectively.

Results

In a first step, we computed the correlation coefficients of values with the bright and dark traits (Table 1). Most correlations between values and the bright traits were positive and small-to-large compared to effect sizes in the individual difference literature (Gignac & Szodorai, 2016). For the Dark Triad, significant associations were found to most of the values, being mainly negative for Machiavellianism and psychopathy, and mainly positive for narcissism.

Correlations with age showed that younger people scored higher than older people on the values of excitement and promotion, the trait of neuroticism, and all the three dark traits. Further, men scored higher than women on the values of excitement and promotion, and on Machiavellianism as well as psychopathy. On the other hand, women scored higher than males on the values of existence, interactive, and normative, and on the traits of agreeableness and neuroticism.

In a next step, we performed a series of hierarchical regressions (Table 2). Model 1 shows that age and gender explained variance in all values except suprapersonal values. Adding bright personality traits explained variance above and beyond these demographics in all value subfunctions. Because we were most interested in

Table 1. *Descriptive statistics, Omega reliability and Correlations between Human Values and Bright\Dark Traits*

	M	DP	ω	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Human values																		
1. Excitement	5.26	1.09	.63															
2. Promotion	4.98	1.16	.68	.53**														
3. Suprapersonal	5.75	.99	.66	.49**	.47**													
4. Existence	6.14	1.00	.74	.39**	.43**	.56**												
5. Interactive	5.72	1.07	.69	.40**	.39**	.47**	.58**											
6. Normative	5.15	1.37	.71	.20**	.28**	.28**	.47**	.50**										
Big–5																		
7. Openness	3.86	.78	.80	.30**	.30**	.43**	.22**	.23**	.19**									
8. Conscientiousness	4.05	.73	.76	.23**	.33**	.34**	.35**	.30**	.36**	.42**								
9. Extraversion	3.65	.87	.81	.27**	.33**	.28**	.28**	.33**	.35**	.48**	.39**							
10. Agreeableness	4.10	.70	.70	.24**	.17**	.33**	.36**	.41**	.39**	.38**	.44**	.47**						
11. Neuroticism	3.37	.98	.81	.04	.11**	.04	.15**	.12**	.14**	.05	.15**	.03	.02					
Dark Triad																		
12. Machiavellianism	1.73	.74	.78	.07*	.17**	−.10**	−.14**	−.14**	−.18**	−.07	−.13**	−.10**	−.29**	.18**				
13. Psychopathy	1.77	.76	.72	.04	.03	−.04	−.14**	−.27**	−.28**	−.04	−.16**	−.14**	−.28**	.09**	.48**			
14. Narcissism	2.67	1.00	.84	.12**	.39**	.03	.12**	.08*	−.05	.06	.04	.08*	−.08*	.19**	.45**	.25**		
Demographics																		
15. Age	25.6	6.68	-	−.11**	−.07*	.030	−.06	−.03	.01	.07	.07*	.06	.08*	−.17**	−.15**	−.11**	−.12**	
16. Gender	1.65	.48	-	−.13**	−.11**	.010	.10**	.12**	.16**	−.06	.07*	.03	.15**	.14**	−.11**	−.18**	−.03	−.12**

Note. Codes for gender were 1 and 2 for male and female, respectively.

*p < .05. **p < .01

Table 2. *Standardized Regression Weights between Human Values and Bright\Dark Personality Traits*

Values	M	Age	Gender	Open.	Cons.	Extra.	Agree.	Neuro.	Mach.	Psych.	Narc.	F(df)	R^2	ΔR^2
Excitement														
	1	−.12**	−.14**									13.27 (2, 809)**	.032	
	2	−.16**	−.17**	.16**	.09*	.12**	.13**	.008				24.09 (7, 804)**	.173	.14**
	3	−.14**	−.16**	.15**	.09*	.11**	.17**	−.02	.08	.03	.05	18.31 (10, 801)**	.186	.01**
Promotion														
	1	−.08*	−.12**									7.23**	.019	
	2	−.11**	−.14**	.1**	.22**	.21**	−.03	.06				28.61**	.199	.18**
	3	−.08*	−.13**	.11**	.21**	.16**	.02	−.01	.08*	−.05	.33**	37.40**	.318	.12**
Suprapersonal														
	1	.03	.02									0.47	.001	
	2	−.01	−.00	.30**	.15**	.00	.14**	−.00				33.79**	.227	.23**
	3	−.01	−.00	.30**	.15**	.00	.14**	.00	−.06	.05	.02	24.01**	.231	.00
Existence														
	1	−.54	.09*									4.70**	.011	
	2	−.08*	.02	.01	.20**	.09*	.23**	.09**				28.45**	.199	.19**
	3	−.09**	.00	.01	.18**	.07	.21**	.09**	−.13**	−.04	.16**	23.20**	.225	.03**
Interactive														
	1	−.01	.12**									6.19**	.015	
	2	−.04	.05	.004	.11**	.15**	.28**	.08*				31.58**	.216	.20**
	3	−.05	.02	.02	.09*	.13**	.24**	.09**	−.03	−.20**	.12**	27.85**	.258	.04**
Normative														
	1	.03	.16**									11.19**	.027	
	2	.00	.09**	−.07	.20**	.19**	.23**	.09**				36.44**	.241	.21**
	3	−.02	.06*	−.05	.19**	.19**	.18**	.11**	−.02	−.16**	−.02	29.33**	.268	.03**

Note. M = model; R^2 = Amount of explained variance by the model per value subfunction; ΔR^2 = increase in the R^2 between the models.
*p < .05. **p < .01

the unique influence of the dark traits in values, we focus on the third model that controls for age, gender, and the bright traits. The relations between the subfunctions and the Dark Triad showed more variability. For instance, excitement and suprapersonal values were barely linked to the Dark Triad ($ps > .05$), whereas promotion values were the most strongly predicted by narcissism ($\beta = .33$, $p < .01$).

The amount of unique variance that the bright personality traits explained in each of the subfunctions varied between 14 and 23 percent (see ΔR^2 for Model 2 in Table 2). When adding the Dark Triad, these variances increased only between 0.3 to 12 percent (see ΔR^2 for Model 3). Although the dark traits explained less variance than the bright traits in values, the dark traits in isolation showed a significant increase in the total variance of the models for all subfunctions, except for suprapersonal values.

Finally, to directly replicate previous research, we tested whether the Dark Triad would predict excitement and promotion values, we replicated the structural equation models (SEMs) reported by Jonason et al. (2018). This is also important because SEMs take non-perfect reliabilities into account. Overall, the results were similar to those reported by Jonason et al. and to the correlations in our sample (Table 1; see Figures S1 and S2 in the Online Supplemental Materials).

Discussion

Only recently, researchers became interested in the relations between values and the Dark Triad (Balakrishnan et al., 2017; Jonason et al., 2015; Jonason et al., 2018; Kajonius et al., 2015). In the present study, we aimed to replicate and extend previous studies. First, we investigated whether values, as operationalized in Gouveia's (2013) model, are associated with the Dark Triad (e.g., Jonason et al., 2018). And secondly, whether the Dark Triad explains variance beyond the Big Five (e.g., Kajonius et al., 2015) in non-Western countries.

For that, we assessed whether bright and dark personality traits were associated with the six subfunctions of the functional theory of human values while controlling for age and gender. Before proceeding with the main analyses, we assessed whether age and gender were associated with values and traits in our sample. Previous studies found effects of age and gender on values and personality traits (e.g., Costa et al., 2001; Gouveia et al., 2015, Robinson 2013, Schwartz & Rubel, 2005, Vilar et al., 2020). In our study, we found gender mean differences for two of the three dark traits, three of the five bright personality traits, and five of the six value subfunctions (Table 1). We also found effects of age, even though the age range was somewhat restricted: We found significant associations between age and

excitement, as well as between age and all traits from the dark triad model. For all these variables, higher scores were associated with lower age. These findings are in line with previous research (Vilar et al., 2020).

Next, we conducted a series of hierarchical regressions. Most of the results were consistent with previous findings. For example, excitement values were strongest predicted by openness to new experiences and extraversion traits, while interactive values were strongest predicted by agreeableness and extraversion. While excitement values represent the need for variety and pleasure, interactive values are important for maintaining interpersonal relationships (Gouveia et al., 2014a). Thus, bright traits might influence the interest in novelty (e.g., openness) and the tendency to being compassionate towards others (e.g., agreeableness).

However, the correlations between neuroticism and values differed compared to prior research that used Schwartz's model of values (Kajonius et al., 2015; Parks-Leduc et al., 2015). While these authors found no significant correlations (Parks-Leduc et al., 2015) or only one negative correlation with self-direction (Kajonius et al., 2015), we found that neuroticism correlated positively with existence, interactive, and normative values. The association with conservation values (normative and existence) is in line with previous research that found that conservatives are more afraid in general and have a stronger preference for stability (Jost et al., 2003).

We also found that the Dark Triad significantly predicted some of the value subfunctions. In prior research using Schwartz's model, values that have a social focus were negatively associated with the Dark Triad, whereas values with a personal focus were positively associated (Kajonius et al., 2015). This pattern is similar in part to our findings. For instance, Machiavellianism negatively predicted existence values and positively predicted promotion values. These values share information with a social and personal focus in Schwartz's model, respectively. This pattern was also seen for psychopathy. The dark trait negatively predicted interactive and normative values. Machiavellianism and psychopathy traits are known as the most anti-social traits (also known as the Dark Dyad; Pailing et al., 2014), which helps to explain why they are negatively associated with social values, showing little importance to any collective interest (Jonason et al., 2015). For example, this low interest for others can help Machiavellianists to select individuals they exploit (Paulhus, 2014). Taking advantage of others might be helpful in an organizational context because it allows Machiavellianists to reach higher positions. Moreover, psychopathic traits are closely related to deviant behaviors and authority challenging and are less likely among religious individuals (Łowicki & Zajenkowski, 2017; Neumann et al., 2015), who, in turn, hold usually normative values.

Further, psychopathic traits are associated with a lack of empathy and remorse (Jones & Paulhus, 2011; Patrick et al., 2009) which is almost the opposite of interactive values (e.g., affectivity, support).

Of interest, while Machiavellianism and psychopathy (known as the most anti-social traits of the Dark Dyad; Pailing et al., 2014) were mainly negatively associated with human values, the narcissistic trait was only positively associated. In prior research using Schwartz's model, narcissism followed the same pattern as the other Dark Triad traits (e.g., Kajonius et al., 2015). However, the functional theory of human values allowed differentiating better between dark traits. We further found that while Machiavellianism and psychopathy were negatively (albeit not always significantly) associated with existence and interactive values, narcissism was positively associated. Narcissists are known for their search for recognition, status, and admiration (Back et al., 2013; Rogoza et al., 2016). Thus, they are worried about their social acceptance, once they depend on this to reassure their ego, helping to understand the endorsement of interactive values, for instance (Jonason et al., 2018). Narcissistic individuals also tend to display self-promotion behaviors (Monteiro et al., 2017), and endorsing values that emphasize power and success (e.g., promotion values) is important to secure the fragile self-esteem of narcists that score high on rivalry (Geukes et al., 2017). In other words, promotion values help in personal development, which is fundamental for individuals that seek to be the center of attention and are admired by others, which explains the relatively large correlation between narcissism and promotion values. This is also in line with results found by Rogoza et al. (2016), in which the admiration facet predicted values as hedonism, self-direction, stimulation, achievement, and power.

Does the Dark Triad Explain Variance beyond the Big Five?

We found that the Dark Triad explained significant variance beyond the Big Five for most of the subfunctions, replicating previous research (Kajonius et al., 2015). The Dark Triad explained the most unique variance beyond the bright traits in promotion values; this effect is carried by the association between narcissism and promotion values. On the other hand, the Dark Triad did not explain significant variance beyond the Big Five for suprapersonal values. Thus, although values are considered as positive constructs (Hitlin & Piliavin, 2004), these significant positive associations indicate a dark facet of values. The Dark Triad has a significant and relevant influence on human values that are not covered by the bright traits, and should therefore be considered when assessing the relations between

human values and personality traits. For example, all studies we are aware of that tested whether values or traits explain better other variables such as religiosity, affect, or belief in a just world (Roccas et al., 2002; Wolfradt & Dalbert, 2003), relied solely on the bright traits. Adding the Dark Triad in similar future studies would provide more insights into whether traits or values are associated with other variables. Further, exploring the unique variance of the Dark Triad and their underlying influence is important to provide a better understanding of how our values are translated into deviant behaviors. For example, normative values might mediate the relations between psychopathic traits and transgressive behaviors that violates socially acceptable norms, such as mocking others, stealing, and attacking someone.

Finally, following calls to replicate research conducted in Western countries in non-Western countries (Henrich et al., 2010), we compared our findings with a prior study that also used the functional theory of human values (Jonason et al., 2018). In our study, we found significant correlations between Machiavellianism and all six value subfunctions. The correlations were positive for excitement and promotion and negative to the other four subfunctions. Using a sample from the USA (*N* = 331), Jonason et al. (2018) found stronger positive associations between Machiavellianism and excitement and promotion, but lower negative associations to the other subfunctions. For psychopathy, our results showed negative associations to existence, interactive, and normative values. The same significant associations were found by Jonason et al. (2018) in the USA, with stronger correlations for existence, and lower for interactive and normative values. Finally, the narcissistic traits were positively associated with excitement, promotion, existence, and interactive values in our study. Only two of these associations were also significant in Jonason et al. (2018) research, with a stronger association between narcissism and excitement, but lower for promotion. Thus, together, the associations between the dark traits and values were not weaker in Brazil, a country with greater financial and social threats than the USA; Fischer and Boer (2015) found weaker associations "between values and all [bright] personality traits (except extraversion) were weaker in contexts with greater financial, ecological, and social threats" (p. 491). However, research from other countries is needed to establish whether the associations between dark traits and values are context independent.

Besides assessing the relations between human values with the bright and dark personality traits, and whether our findings replicate previous findings using different theories of human values (e.g., the theory of basic human values, Schwartz, 1992), it is relevant to consider the impact of such findings in the Brazilian

context. As previously stated, Brazil presents an unstable environment, poorly covering basic needs (e.g., health, security), and with a high incidence of corruption (Transparency International, 2018). As a consequence of such context, individuals tend to adopt deceptive and transgressive behaviors to take advantage of others (Miura et al., 2019), as using the "Brazilian Jeitinho", a popular construct that represents the break of social rules and corruption (Ferreira et al., 2012). Therefore, studying the relations between the Dark Triad and human values in such a context might help to elaborate hypothesis on the underlying motivations that lead Brazilians to behave in such a way.

For instance, our results showed that Machiavellianism and narcissism positively predicted promotion values. These traits characterize strategic and manipulative individuals (Jones & Paulhus, 2009), with a grandiose and unrealistic self-concept (Wink, 1991) and search for recognition and status (Back et al., 2013; Rogoza et al., 2016), whereas promotion values refer to individuals that are guided for personal and material goals (Gouveia et al., 2014a). Such significant relations in the Brazilian context help to raise questions about the behaviors adopted in contexts where the promotion values can be clearly applied, such as the organizational and academic. That is, could employees be adopting dark behaviors (e.g., gossiping about co-workers, highly promoting their own skills) in order to achieve a professional gain within a company (e.g., a raise, a promotion)? Or could students be using specific strategies (e.g., cheating, copying homework) to get higher grades? Such possibilities deserve special attention, especially because techniques to deceive others to gain personal benefits can be common in certain contexts (Ferreira et al., 2012). Therefore, our findings might help to further explore the association of these constructs to other variables (e.g., attitudes towards corruption, work engagement), as well as their application to these contexts, promoting clean attitudes and behaviors.

As another example, as expected, psychopathy, the most anti-social dark trait, significantly and negatively predicted social values (interactive and normative). Such findings help to highlight the little importance that individuals with such traits have for others (Jonason et al., 2015). If we translate to the Brazilian context, it is possible that these individuals are using transgressive behaviors in disregard of what these actions can result in others. Take, for example, the political scenario during the COVID–19 crisis. In some countries, like Ireland, the government is helping the citizens that were impacted by the virus, offering them monetary help to pass through these difficult times (Citizens Information, 2020). Whereas in Brazil, politicians proposed the companies to be allowed to suspend the contracts of their employees for four months, a decision that would be extremely harmful to the workers in Brazil. Luckily, after many complaints, this proposal was revoked (Mazui, 2020). Thus, our findings might help to create a desirable profile of those that are willing to represent the society, showing the necessity of assessing whether their values and traits are in line with what the people are expecting them to be. In other words, whether the politicians are working for the people, and not particular groups or personal interests.

Despite of the relevant findings of our research, some potential limitations should be highlighted. For instance, we did not control for the socioeconomical status of participants. Also, the non-representativeness of our sample. However, abundant research on human values shows that the structure, the hierarchy of own values and perceived values of other people, as well as the correlations with the Big Five mainly remain the same between student and non-student or representative samples (e.g., Hanel et al., 2018; Parks-Leduc et al., 2015; Schwartz & Bardi, 2001). Thus, we are confident that our findings will generalize to other samples.

Future studies might further explore the relations between values and traits using different models of personality, such as HEXACO, and other dark traits including sadism and spitefulness (Southard et al., 2015). Because values guide human behavior (Gouveia et al., 2014a), it is also important to assess the mediational role of human values, linking dark traits to deviant behaviors.

In our research, we assessed the predictive power of the bright and dark personality traits to human values of the functional theory of human values (Gouveia et al., 2014a). Our findings were mainly consistent with the literature, with most of the bright traits positively associated with values, and the Dark Triad negatively associated to values with a social focus (e.g., existence, interactive), suggesting that individuals with higher levels in the Dark Triad embrace values that are linked to self-centered abstract goals.

Supplementary Material

To view supplementary material for this article, please visit http://dx.doi.org/10.1017/SJP.2020.58.

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