








Research Article

The Dark Core of personality: Individual's expression of locus of control and spirituality

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ABSTRACT

Dark personality traits are amongst the most popular research topics recently. In 2018 the Dark Core of personality was proposed as a common core to capture all aversive subclinical manifestations. In this study, we aimed at investigating how individuals with high scores on the Dark Core perceive control (i.e., internally or externally) and express their spirituality. Participants were 614 adults, mostly females (85.17%), aged from 18 to 73 years-old ($M = 36.00$; $SD = 12.26$), and identified themselves as agnostics (22.63%) or Catholics (19.05%). Participants responded to a measure that assessed the Dark Core of personality (D35), the Locus of Control Scale (ELOCUS), and the WHOQOL-spirituality, religiousness, and personal beliefs (WHOQOL-SRPB). We used a path analysis model to estimate their connection. Results indicated that the Dark Core better predicts external locus of control, which respectively predicts connect, strength, and faith, which can be considered as spiritual coping strategies. We concluded that men and women tend to blame external forces when things do not go their way and use personal beliefs to relieve emotional distress.

Keywords: dark traits, locus of control, personality, religiousness

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Introduction

Investigation on subclinical aversive traits was highly impacted by the publication of Paulhus and Williams (2002) on the proposal of the Dark Triad of personality. Since their statement that Machiavellianism, narcissism, and psychopathy overlap but are distinct constructs, research on the topic grew considerably. Recently, Moshagen et al. (2018) suggested through a review of the literature and the use of a bifactor model that aversive personality traits can be captured by a single core, namely the Dark Core of personality or "D." This core describes a tendency to disregard, accept or provoke aversive situations to others, using beliefs that can justify their actions. Further evidence was accumulated to support their conceptualization, indicating that D was stable in four years and is influenced by genetics and the environment (Moshagen et al., 2020; Schermer & Jones, 2020). To further explore and expand the conception of D, in this article, we will investigate the relationship between D, locus of control, and spirituality/religiosity.

Darker personalities are primarily associated with aversive characteristics, lower levels of empathy, and consideration for others. The idea that one can control every outcome and convince people to do what they want is commonly described as a critical characteristic of men and women with higher levels of dark personality traits (Aldousari & Ickes, 2021). Control of every outcome can be associated with the definition of locus of control, that is, how humans interpret any outcome as a consequence of their behavior or produced by external factors (e.g., a transcendental force; Rotter, 1990). On the one hand, individuals with high internal control perceive themselves and their actions as the main focus of responsibility for an outcome. When internal control is exacerbated, individuals may feel overconfidence and overestimate their capability to influence events (Nieuwenhuizen, 2004). On the other hand, highly externally controlled individuals tend to believe that events in life are controlled by a force beyond their capabilities, such as fate, luck, divine powers, or powerful people (Rotter, 1966). When higher levels of external control are present, individuals tend to be more anxious and emotional (Nieuwenhuizen, 2004).

So far, there are inconclusive results about how people with higher dark traits perceive control of their life events. Some mixed results indicate that the composite of the Dark Triad in entrepreneur students is negatively correlated with internal control and that Machiavellianism, also in entrepreneur students, positively correlated with external control (Rapp-Ricciardi et al., 2018). In another investigation in a general community sample, psychopathy was positively correlated with internal control, and Machiavellianism negatively correlated with external control (Bonfá-Araujo et al., 2020). Concerning D, Moshagen et al. (2020) demonstrated a tendency to perceive the world as competitive and dangerous. Consequently, people with high scores on D tend to engage in inadequate social behavior and experience a lack of guilt, which might lead them to deny responsibility for their actions and placing it on external causes. The way individuals will perceive specific outcomes can be highly influenced by their development, their environment, and even their spiritual beliefs.

Usually, men and women with dark traits are not particularly religious or kind (Kämmerle et al., 2013; Łowicki & Zajenkowski, 2015), while highly spiritual or religious people exhibit greater empathy levels and concern with others (Huber & MacDonald, 2012; Stewart et al., 2019). Therefore, this makes darker traits and religiosity appear unfitting with each other (e.g., Łowicki & Zajenkowski, 2015). Spirituality/religiosity are how people seek to give meaning to their lives, consisting of the belief in something transcendent, which may be accompanied by religious rituals (Panzini et al., 2017). The World Health Organization (WHO) investigates spirituality/religiousness from six dimensions: spiritual connection, meaning and purpose of life, experiences of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism, and faith (Moreira-Almeida & Koenig, 2006; WHO, 2002). Thus, spirituality/religiosity might lead individuals to integrate healthily with society, promoting empathy, respect for others, and having a purpose in life (WHO, 2002). This aspect of life integrates one's perception of their quality of life, giving people a sense of meaning in life and satisfaction with life, aspects

that people with high dark traits usually tend to score low (Wang et al., 2019; Womick et al., 2019).

As previously found, higher levels of internal locus of control are associated with beliefs in divine power and the influence of divine power in an individual's life (Iles-Caven et al., 2020). Despite knowing the relationship between the Dark Triad of personality and locus of control or spirituality/religiousness, it is still unknown how individuals with darker traits will express their beliefs in specific outcomes. Spirituality/religiosity emphasizes prosocial behaviors, such as compassion, mercy, respect, and responsibility (Einolf, 2013). Perhaps, increased spirituality/religiosity can attenuate harmful behaviors to others, given that it can afford individuals to develop a better sense of responsibility and caring for others. Thus, in this study, we aimed to investigate the association between the Dark Core of personality and their perception of consequences/control of their lives and how spirituality/religiousness may be expressed. We hypothesize that (a) the Dark Core will explain internal and external locus of control, (b) the Dark Core will have negative correlations with spiritual/religious beliefs, and (c) Internal control will better explain spiritual/religious beliefs than external control.

Method

Participants and procedures

The research protocol was approved by the Research Ethics Committee and agreed to the declaration of Helsinki. The data collection took place on the Google Forms online platform, conducted in Brazilian Portuguese. To take part voluntarily in the study, participants should be at least 18 years old and agree to the information provided in the Consent Form. Participants were Brazilian community adults recruited via social media ($N = 614$), 85.17% were females. The sample were between 18 and 73 years-old ($M = 36.00$; $SD = 12.26$); 47.55% were single, 39.57% were married, 11.72% were divorced, and 1.14% were widowed; 29.64% had a complete graduate degree, 24.75% had a complete undergraduate degree, 23.77% were undergraduate students. The majority were agnostic (22.63%), followed by Catholics (19.05%),

spiritists (18.56%), atheists (15.96%), with the other 23.98% religions being Buddhism, Candomblé, Judaism, Protestantism, Hinduism, and Muslims. Most of the participants (51.30%) did not practice their religion, and those who practice went to their respective temples at most once a week (25.08%) or twice a week (5.37%).

Instruments

Dark Core of Personality (D35)

Dark Core of Personality (D35; Moshagen et al., 2020). Through an item selection, the authors developed three concise measures of the Dark Core of Personality, D70, D35, and D16. Brazilian-Portuguese version of the instrument is under development by the authors of this study and the original authors, following the recommendations of the International Testing Commission (ITC, 2017) and Bader et al. (2021) for instrument structure. For our study, we used the version comprising 35 items that are summed to create a single dimension of dark personality, items include characteristics of amorality (crudelia [e.g., "My own pleasure is all that matters"], and frustralia [e.g., "I would like to make people suffer, even if it meant that I would go to hell with them"]); egoism (e.g., "To make money there are no right or wrong ways anymore. Only easy and hard ways"), greed (e.g., "For most things, there is a point of having enough," reversed item), Machiavellianism (e.g., "It's wise to keep track of information that you can use against people later"), moral disengagement (e.g., "People who get mistreated have usually done something to bring it on themselves"), narcissism (e.g., "I do not mind sharing the stage," reversed item), psychological entitlement (e.g., "Someone who hurts me cannot count on my sympathy"), psychopathy (e.g., "Payback needs to be quick and nasty"), sadism (e.g., "If I ever tormented others, I would feel strong remorse," reversed item), self-centeredness (e.g., "I'm not very sympathetic to other people or their problems"), and spitefulness (e.g., "If I had the opportunity, then I would gladly pay a small sum of money to see a classmate who I do not like fail his or her final exam"). Participants use a Likert scale (1 = *strongly disagree*; 5 = *strongly agree*). Model fit (i.e., unidimensional) in this study was $CFI = .954$, $TLI =$

= .951, *RMSEA* = .041 (90% *CI*.038 - .045), with internal consistency of $\alpha = .75$ and $\omega = .78$.

Locus of Control Scale (ELOCUS)

Locus of Control Scale (ELOCUS; Couto et al., 2021). We measured Locus of Control using a Brazilian-Portuguese newly developed instrument that assesses internal and external locus consisting of 29 items, of which 16 measure internal characteristics, such as, self-efficacy, and responsibility ($\alpha = .93$ and $\omega = .93$, e.g., "I'm responsible person"); and 13 measure external characteristics, for example, lucky, destiny, and superior forces ($\alpha = .80$ and $\omega = .80$, e.g., "I do what other people tell me to do"). Participants use a Likert scale (1 = *never*; 5 = *always*). Model fit (i.e., two dimensions) in this study was *CFI* = .979, *TLI* = .977, *RMSEA* = .038 (90% *CI*.033 - .042).

WHOQOL-Spirituality, Religiousness and Personal Beliefs

WHOQOL-Spirituality, Religiousness and Personal Beliefs (WHOQOL-SRPB; WHO, 2002). Developed by the World Health Organization and adapted to Brazilian-Portuguese by Panzini et al. (2011), this instrument measures how spirituality, religiousness and personal beliefs affect one's quality of life, consisting of 32 items. There are eight dimensions, with four items each; connect ($\alpha = .96$ and $\omega = .96$, e.g., "To what extension does any connection to a spiritual being help you get through hard times?"), meaning ($\alpha = .83$ and $\omega = .85$, e.g., "To what extent do you find meaning in life?"), awe ($\alpha = .74$ and $\omega = .75$, e.g., "To what extent do you feel spiritually touched by beauty?"), whole ($\alpha = .80$ and $\omega = .80$, e.g., "To what extent do you feel any connection between your mind, body and soul?"), strength ($\alpha = .95$ and $\omega = .95$, e.g., "To what extent do you feel inner spiritual strength?"), peace ($\alpha = .93$ and $\omega = .93$, e.g., "To what extent do you feel peaceful within yourself?"), hope ($\alpha = .89$ and $\omega = .89$, e.g., "How hopeful do you feel?"), and faith ($\alpha = .98$ and $\omega = .98$, e.g., "To what extent does faith contribute to your well-being?"). Item sets with specific content use a Likert scale with a distinctive anchor, so that four response formats are employed, each one to a particular item set (1 = *not at all*, 5 = *an extreme amount*; 1 = *not at all*, 5 = *extremely*; 1 = *not at all*, 5 = *completely*; 1 = *very*

dissatisfied; 5 = *very satisfied*). Model fit (i.e., eight dimensions) in this study was $CFI = .989$, $TLI = .987$, $RMSEA = .060$ (90% CI .057 - .064).

Data analysis

Data were analyzed using JASP (Jasp Team, 2020) and MPlus (Muthén & Muthén, 1998-2017). We first performed descriptive statistics and zero-order correlations on the collected variables. Lastly, we used a path model to estimate the relationship of the Dark Core of Personality predicting Locus of Control and spirituality/religion controlled for gender, using the Maximum Likelihood Robust (*MLR*) estimator. For this model, we assessed the Comparative Fit Index (*CFI*), Tucker-Lewis Index (*TLI*), and Root Mean Square Error of Approximation (*RMSEA*). Acceptable values must fall > than .90 for *CFI* and *TLI*, and <.08 for *RMSEA* (Brown, 2015).

Results

In Table 1, we report descriptive statistics for our study variables. The Dark Core only correlated positively with an external locus of control and negatively with the other variables. Despite men having higher scores than women, no statistical difference was found. Regarding the locus of control dimensions, on the one hand, internal control was highly positively correlated with variables from the WHOQOL measure; on the other, external locus correlated negatively with religiousness and spirituality. Women were found to have higher means in the internal locus of control, while men had higher means in the external locus of control. We also observed that women had higher means in all spirituality/religiousness/personal beliefs dimensions.

Table 1*Descriptive Statistics and Correlations for our Study Variables*

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Dark Core of Personality	2.52	0.30	-										
2. Internal Locus	4.04	0.62	-.05	-									
3. External Locus	1.82	0.51	.29**	-.40**	-								
4. Connect	3.15	1.46	-.11*	.13*	.10*	-							
5. Meaning	3.65	1.03	-.19**	.30**	-.10*	.58**	-						
6. Awe	3.95	0.82	-.19**	.28**	-.08 ^a	.43**	.55**	-					
7. Whole	3.57	0.94	-.17**	.36**	-.19**	.44**	.57**	.64**	-				
8. Strength	3.26	1.39	-.14**	.22**	.01	.86**	.67**	.55**	.62**	-			
9. Peace	3.36	1.01	-.15**	.43**	-.23**	.27**	.50**	.52**	.71**	.44**	-		
10. Hope	3.37	1.03	-.12*	.41**	-.21**	.37**	.62**	.53**	.62**	.52**	.72**	-	
11. Faith	3.10	1.51	-.10*	.20**	.08	.90**	.65**	.47**	.52**	.89**	.37**	.49**	-
<i>t</i> -Tests (Gender)			-1.74	2.23 ^a	-1.96 ^a	4.14**	2.58*	3.10*	2.74*	3.22**	1.94	2.41*	3.53**
Cohen's <i>d</i>			-0.19	0.25	0.22	0.47	0.29	0.35	0.31	0.36	0.22	0.27	0.40

Notes: ** $p < .001$; * $p < .01$; ^a $p < .05$. For gender, 0 = *female* and 1 = *male*.

Subsequently, we conducted a path model where the Dark Core explained both locus dimensions and facets of spirituality/religiousness, and internal/external locus explained each expression of spirituality/religiousness, controlling for gender. Figure 1 presents the results. The model yielded an excellent fit $c^2(66) = 3543.671$, RMSEA = 0.00 [90% C.I. 0.00 to 0.00], CFI = 1.00, TLI = 1.00.

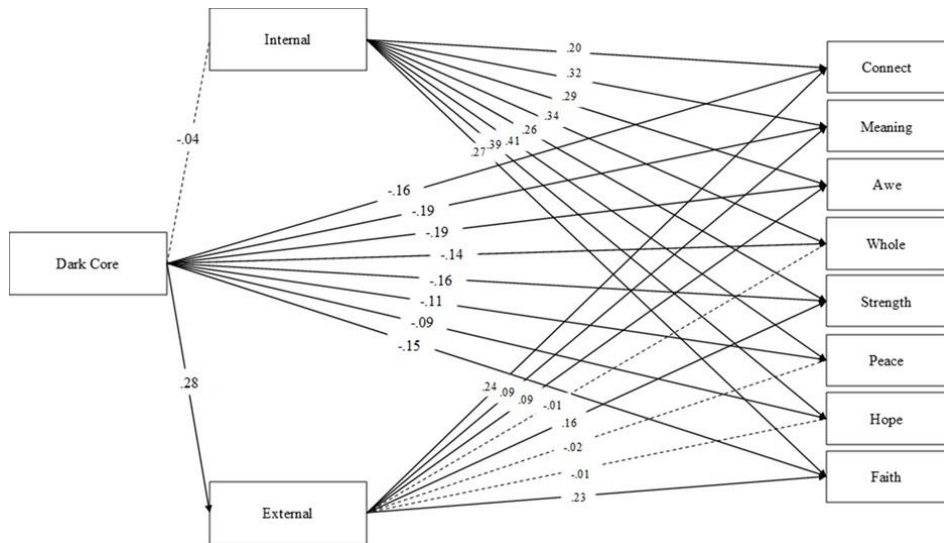


Figure 1. Path model of the Dark Factor predicting locus of control and spirituality/religiousness, controlled for gender.

Note: Beta values on arrows indicate significant path $p < .001$. Dashed lines indicate a nonsignificant path.

The Dark Core positively explained the external locus of control, which respectively only explained connect, strength and faith. The internal locus was able to explain all spirituality/religiousness dimensions. In other words, individuals with higher scores in darker traits tend to perceive the results of events as a consequence of external forces, using strategies such as connection, strength, and faith to balance their quality of life. Gender had significant ($p < .05$) influence on internal control ($\beta = -.08$), connect ($\beta = -.15$), awe ($\beta = -.09$), strengthen ($\beta = -.10$), and faith ($\beta = -.12$).

Discussion

This study aimed at investigating the association between the Dark Core of personality and their perception of consequences/control of their lives and how spirituality/religiousness may be expressed. The hypotheses were corroborated by the results, suggesting, in general, a negative

relationship between the Dark Core and spirituality/religious beliefs and internal locus of control, thus showing a tendency of men and women to attribute responsibility for their actions to external causes. Also, as hypothesized, internal locus was more strongly correlated with spirituality/religious beliefs than external locus. Males and females exhibited small to moderate differences in our variables. Surprisingly, there was no difference in the dark personality traits, probably because the measure is an aggregated score of many traits, each of them with a mean difference that might sometimes favor men and other times women. Regarding locus of control, women had higher internal control and lower external control than men and scored higher in spiritual/religious facets, following previous literature (Iles-Caven et al., 2020). The theoretical and practical implications of these results are discussed.

Our study has two main findings. The first one is that individuals with higher scores on the Dark Core tend to perceive events as externally controlled. This is consistent with the notion that these individuals behave in a socially inadequate way, disregarding others and denying responsibility for their actions (Moshagen et al., 2018). The absence of responsibility may lead them to engage in more unethical and irrational behavior (Tsai et al., 2014) and to blame other people (Guo et al., 2021), superior forces, and destiny for events in their lives. One famous example is the widely known social experiment of Milgram (1963), in which participants were informed that they would not be held responsible for what was taking place in the experiment. Participants ended up administering a (fake) lethal voltage of shock to another participant (who was a confederate). Therefore, people, that believe they are not responsible for their actions might end up engaging in aggressive or unethical behaviors they would not engage in otherwise.

The second main result is that external locus of control predicted facets related to spiritual coping facets, i.e., connect + strength + faith (Krägeloh et al., 2015). These three facets might act as a buffer to reduce anxiety since they seem to describe coping strategies and not quality of life strategies, differing from the other facets that are more related to

consequences of religious and spiritual beliefs (Moreira-Almeida & Koenig, 2006). A possibility is that men and women with higher scores in the Dark Core use their connection with God (or other related beings) as a tool, since they may not be able to develop a real religious connection, albeit having the capacity of understanding the importance others give to this aspect of life (Łowicki & Zajenkowski, 2017). Thus, they might engage in spiritual coping to manipulate and convince others that an external force is responsible for their inadequate social behaviors (Kämmerle et al., 2014).

A propensity toward placing responsibility mostly on external causes has practical implications for the life of men and women with higher scores in the dark core of personality. Our results entail that such individuals tend to overlook spirituality or religiosity in their lives. Namely, by placing the responsibility for the people's destiny or fate onto a divine entity or force, the high D scorers can morally justify their antisocial behaviors such as conning, cheating, and robbing/thieving. The consequences of these exploitative actions can be attributed to the plans of God or another entity so that the high D scorers can exempt themselves from feeling guilty or from believing they will suffer a "divine punishment."

Despite the advances made in our research on the Dark Core and how individuals may perceive spiritual outcomes, our study was not without limitations. First, the composition of our sample is idiosyncratic when it comes to religious beliefs because Brazil is a highly Catholic country (Instituto Brasileiro de Geografia [IBGE], 2010). Thus, we cannot assure the findings here reported will perfectly replicate in other cultures with a distinct profile of religious beliefs. Moreover, our sample was mainly composed of female individuals, so that future studies should make efforts to test the hypotheses here advanced in more balanced datasets. Second, we only relied on self-report measures, which could be affected by response biases, especially the Dark Core items that are socially undesirable. Thus, future studies should try to overcome such limitations. Despite these shortcomings, we explained how people with higher scores on the Dark Core are more prone to perceive outcomes as consequences of external causes, such as God or destiny if

something does not go their way. In turn, external locus was able to predict three personal beliefs, “Connect + Strength + Faith,” beliefs previously considered as spiritual coping (i.e., they are primarily used to reduce emotional distress), instead of the spiritual quality of life (Krägeloh et al., 2015).

Conflict of interest

We have no conflicts of interest to disclose.

Data availability statement

The data that support the findings of this study are available from the corresponding author, upon reasonable request.

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