

Dark Triad, Sociosexual Orientation and Religious Affiliation: An Association and Moderation Study

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Abstract

Objective: We examined the relationships between individuals' malevolent tendencies (i.e., the Dark Triad: Machiavellianism, narcissism, and psychopathy), sociosexual orientation (i.e., behavior, attitude, and desire to participate in uncommitted sex) and religious affiliation.

Method: The participants consisted of US-residents (N = 309) who responded to an online survey through Amazon's Mechanical Turk (MTurk). A correlation analysis was used to investigate the association between variables and multiple regression analyses were used to investigate if religious affiliation moderated the effect of the Dark Triad composite (i.e., the sum of the three dark traits) on global sociosexual orientation.

Results: The Dark Triad traits had a positive relationship with each of the dimensions of sociosexual orientation, but only psychopathy was significantly negatively related to religious affiliation. Religious affiliation, in turn, was negatively related to sociosexual orientation and its' dimensions. Religious affiliation, however, did not moderate the effect of Dark Triad on sociosexual orientation.

Conclusion: Our findings confirm the impact of religiousness/spirituality upon aspects of malevolent character traits, that is, deviant sexual orientation.

Keywords: Dark triad; Machiavellianism; Moderation; Narcissism; Psychopathy; Religious affiliation; Sociosexual orientation

Introduction

"Since love and fear can hardly exist together, if we must choose between them, it is far safer to be feared than loved"

Individuals' dark tendencies include malevolent character traits such as Machiavellianism, narcissism, and psychopathy [1]. Only narcissism and psychopathy have clinical descriptions [2] Machiavellianism as a concept was derived from Niccolò Machiavelli's (advisor to the Medicis) tactics and philosophy [3]. Machiavellianism incorporates the propensity for lies, treachery, manipulation, and forceful persuasion that a leader may apply to achieve political and social power [4]. Cynicism, lack of principles, and the conviction that manipulation gives success are common among individuals who are high in Machiavellianism. These individuals also exhibit emotional frigidity, immoral strategic thinking, long-sightedness and motivations dictated by money and power. These individuals are not averse to betrayal, exploitation [3,5], and sexual promiscuity and enmity [5]. In the work environment, they display cunning and ruthlessness to obtain political goals [4] and financial success [6]. Individuals presenting

Machiavellian attributes may persuade and influence others for their own personal benefit, often abusing their power as leaders through dominant behavior. In the context of the general population, subclinical narcissism includes grandiosity and convictions of once own right and supremacy. Individuals high in narcissism are convinced they are unique and exhibit a high degree of conceit vanity, arrogance, and demand admiration from others. They may demonstrate hostility, insensitivity, disdainfulness, and lack of empathy. They often display a self-reinforcing notion of positive outcomes due to their talents, whereas negative outcomes are explained by 'fate' or the deficiencies of others [7]. In addition, high levels of narcissism correlate negatively with integrity, dependability, and trust [8]. The subclinical notion of psychopathy is associated with high levels of impulsiveness, sensation-seeking and with both manipulative and antisocial behavior [1,9]. Psychopathy is also negatively correlated with conscientiousness [1] and friendliness [2], while positively correlated to extraversion and openness [1], as well as verbal and physical aggressiveness [10]. In addition, psychopathy is negatively correlated with serious romantic relationships [10,11]. In sum, individuals who express these malevolent character traits also tend to have opportunistic short-term relationships with a pragmatic and sarcastic attitude towards love [10,12].

In contrast, individuals with restrictive sociosexual orientations prefer love, relationship engagement and emotional closeness rather than temporary sex [13]. Sociosexuality describes individuals' propensities for opportunistic, temporary sexual relations [14] in different dimensions: (i) behavior, (ii) attitude, and (iii) desire [15]. The behavior dimension (i) reflects individuals' previous sexual experience, relationships, and infidelity. The attitude dimension (ii) reflects aspects of behavior and desire influenced by moral feelings, reflections and self-presentation based on values, habits and social effects. The desire dimension (iii) presents the notion of a dispositional motivation that refers to effort given to temporary and long-term sexual relationships.

In this context, there appears to be a positive relationship between religion and spirituality and several markers of physical health [16]. Religion shows also positive links to personal attributes, such as friendliness, which is associated negatively with the dark triad components [2]. Religion and spiritual well-being are linked negatively to psychiatric disorders such as anxiety, depression, and narcomania [17]. Some of these, in turn, positively associated to Machiavellianism, narcissism, and psychopathy [18]. In summary, the Dark Triad appears to be associated with sociosexual orientation while being affiliated to a religion shows negative associations to both the former and the latter.

The purpose of the present study was twofold: (i) to examine associations between the Dark Triad, sociosexual orientation and religious affiliation and (ii) to ascertain whether or not being affiliated to a religion moderated the effects of Dark Triad traits upon sociosexual orientation.

Method

Participants and procedure

A total of 309 individuals participated in the study of whom 104 were female ($M = 29.02$ years, $SD = 8.1$, Range 18-57) and 205 were male ($M = 31.96$ years, $SD = 10.2$, Range 18-71). MTurk allows data collectors to recruit participants online for completing different tasks in exchange for wages. This method of data collection online has become more common during recent years and it is an empirically tested tool for conducting research in the social sciences [19]. Participants were recruited by the criteria of being a US-resident and the ability to read and write fluently in English. Participants were paid a wage of 0.50 cents (US-dollars) for completing the task and informed that the study was confidential and voluntary. Participants responded to questionnaires measuring the Dark Triad, sociosexual orientation and religious affiliation, as well as demographic questions on marital status, employment, gender, age, and two control questions, e.g. "In

this question please answer Neither agree or disagree". Nine participants responded incorrectly to the control question and were therefore eliminated from the final sample (i.e., 2.91%).

Measures

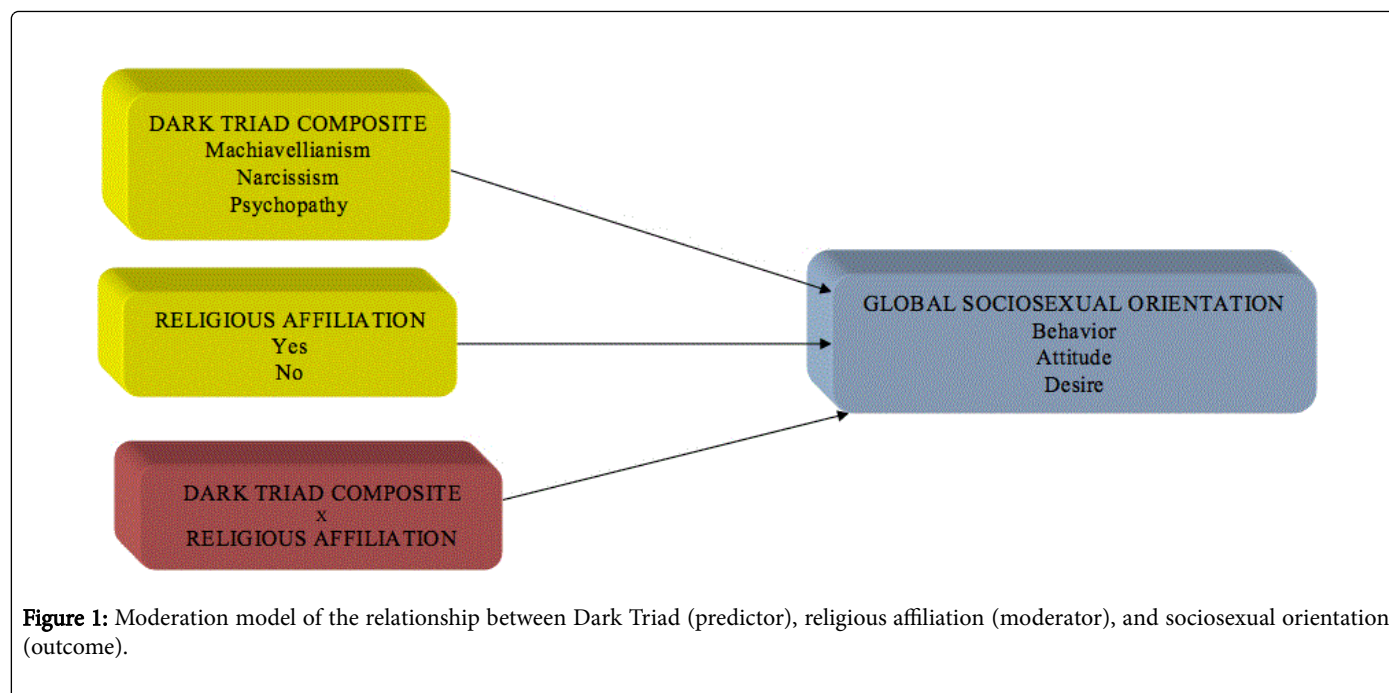
The Dark Triad Dirty Dozen [10]. This instrument consists of 12 statements (1 = strongly disagree, 7 = strongly agree) with four statements for each dark trait: Machiavellianism ("I tend to manipulate others to get my way"; $\alpha = 0.82$), narcissism ("I tend to want others to admire me"; $\alpha = 0.77$), and psychopathy ("I tend to be unconcerned with the morality of my actions"; $\alpha = 0.77$). The three traits combined (i.e., the Dark Triad composite) had good reliability ($\alpha = 0.84$). This instrument has showed good internal consistency and test-retest reliability in earlier studies [10,20,21].

Sociosexual Orientation Inventory Revised [15]. This test consist of nine statements (1 = strongly disagree, 9 = strongly agree) that measure the three sociosexual dimensions: behavior ("With how many different partners have you had sexual intercourse on one and only one occasion?"; $\alpha = 0.79$), attitude ("Sex without love is OK"; $\alpha = 0.86$), and lust ("In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?"; $\alpha = 0.87$). The global sociosexual orientation (i.e., the sum of all three dimensions) showed here good reliability: $\alpha = 0.87$.

Religious affiliation: Participants were asked to indicate their religious affiliation in any of the following alternatives: 0 = none ($n = 182$), 1 = Roman Catholic ($n = 52$), 2 = Evangelic Christian ($n = 60$), 3 = Jewish ($n = 6$), 4 = Muslim ($n = 0$), 5 = Hindu ($n = 1$), 6 = Buddhist ($n = 8$), 7 = other ($n = 0$). For the analyses, we divided the whole sample in individuals with no religious affiliation ($n = 182$) and individuals with any religious affiliation ($n = 127$).

Statistical analysis

A Pearson's correlation analysis was conducted to investigate associations between the Dark Triad traits, sociosexual orientation, and religious affiliation. We conducted a three-step hierarchical regression analysis to investigate whether or not religious affiliation had an effect on the relationship between the Dark Triad composite and global sociosexual orientation. The predictor variable in the analysis was the Dark Triad composite, the moderation variable was religious affiliation, and the outcome variable was the global sociosexual orientation (see Figure 1). Assumptions necessary for linear regression analysis were met [22], as well as the test of independence of data (Durbin-Watson's test = 1,903).



Results and Discussion

There were significant positive correlations between the Dark Triad traits and both global sociosexual orientation and its dimensions (i.e., behavior, attitude and lust). There were also significant negative correlations between religious affiliation and psychopathy and between religious affiliation and global sociosexual and its dimensions (i.e., behavior, attitude, lust. See Table 1 for the details.

The results of correlational analysis confirmed associations between the Dark Triad, sociosexual orientation and religion thereby reinforcing the notion that the Dark Triad attributes are linked to a less

restrictive sociosexual orientation [5,11,12,23,24]. Religious affiliation showed a negative relationship with psychopathy, sociosexual orientation, behavior and attitude which is hardly surprising since these components tend to influence the norms and values of society that regulate sexuality [25]. Nevertheless, it is likely that individual lust for sexual intercourse is regulated biologically [26]. The negative association between religion and psychopathy is not surprising, seeing that individuals high in psychopathy are antisocial, have low levels of attachment, and lack both transcendence and empathy. In other words, all of these characteristics are high among spiritual individuals, but absent among individuals high in psychopathy [2,16,17].

	M	SD	α	1	2	3	4	5	6	7	8	9
1. Dark Triad	3.36	1.06	0.84									
2. Machiavellianism	3.4	1.48	0.82	0.86**								
3. Narcissism	3.93	1.35	0.77	0.68**	0.39**							
4. Psychopathy	2.74	1.32	0.77	0.75**	0.56**	0.21**						
5. Global Sociosexual Orientation	13.55	5.3	0.87	0.39**	0.35**	0.27**	0.26**					
6. Sexual Behavior	9.41	5.59	0.79	0.25**	0.26**	0.15*	0.15*	0.71**				
7. Sexual Attitude	17.84	7.39	0.86	0.31**	0.27**	0.21**	0.22**	0.87**	0.54**			
8. Sexual Desire	13.38	6.78	0.87	0.35**	0.31**	0.27**	0.26**	0.79**	0.30**	0.53**		
9. Religious affiliation	0.41	0.49	N/A	ns	ns	ns	-0.18*	-0.18**	-0.15*	-0.24**	ns	-

Table 1: Correlation coefficients between the Dark Triad composite and traits (Machiavellianism, narcissism, and psychopathy), global sexual orientation and its dimensions (behavior, attitude, and desire), and religious affiliation. Note: α = Cronbach's α ; M = mean; SD = standard deviation; ns = non-significant; N/A = not available; * $p < 0.01$, two-way, ** $p < 0.001$, two-way.

Step 1 in the three-step hierarchical regression analysis indicated that Dark Triad composite ($B = 1.928$, $SE B = 0.264$, $\beta = 0.385$, $p < 0.001$) made a significant contribution to the regression model ($F(1,$

$307) = 53.500$, $p < 0.001$), explaining 14.8% of the variation in global sociosexual orientation. In Step 2, the predictor variable Dark Triad ($B = 1.863$, $SE B = 0.261$, $\beta = 0.372$, $p < 0.001$) and the moderator variable

religious affiliation (B = -1.633, SE B = 0.562, β = -0.152, p = 0.004) produced a significant effect (ΔF (1, 306) = 8.447, p = 0.004), explaining a further 2.3% of the variation in global sociosexual orientation. In step 3, the Dark Triad composite (B = 1.978, SE B = 0.348, β = 0.395, p < 0.001), religious affiliation (B = -0.747, SE B = 1.846, β = -0.069, p = 0.686), and the interaction variable Dark Triad x religious affiliation (B = -0.266, SE B = 0.528, β = -0.088, p = 0.614)

explained 0.1% of the variation in global sociosexual orientation. Nevertheless, R2 was not significant (ΔF = (1, 305) = 0.254, p = 0.614). The Dark Triad composite was the most significant predictor of global sociosexual orientation with all three variables explaining 17.2% of the variation in global sociosexual orientation. In other words, religious affiliation was not a significant moderator of the relationship between Dark Triad and global sociosexual orientation (Table 2).

	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Dark Triad	1.93	0.26	0.39**	1.86	0.26	0.37**	1.98	0.35	0.40**
Religious affiliation				-1.63	0.56	-0.15*	-0.75	1.85	-0.07
Dark Triad x Religious affiliation							-0.27	0.53	-0.09
R2		0.15			0.17			0.17	
ΔF		53.50**			8.45*			0.25	

Table 2: Moderation Multiple Regression Analyses for the Dark Triad composite as the predictor of global sociosexual orientation and religious affiliation as the moderator.

Note: *p < 0.01, two-way, **p < 0.001, two-way.

Limitations and Concluding Remarks

The unequal gender distribution with male preponderance may have influenced the result since males show greater propensities for scoring higher on Dark Triad character traits [1,10], whereas women tend to be less permissive of casual sex [27] and to also report more religious engagement [25] compared to men. In addition, some of the associations found here might arise from hormonal differences between males and females or differences in social obligations/pressure as well.

Another advantage would have been to ask participants to separately identify as atheist, agnostic or "believe in God but not affiliated with a formal religion". After all the general category of "not affiliated" is not easily understood, that is, there could be many individuals who do believe in a higher power but simply don't identify with formal affiliations. Also in this line, the validity of the measure used here to operationalize the dark traits, the Dark Triad Dirty Dozen, has been criticized [28-31]. Future studies should test measures included in different studies [32], such as, Jones and Paulhus the Short Dark Triad and also single measures of each malevolent trait [33], such as, the Mach-IV and the Narcissistic Personality Inventory. Additionally, for the Dark Triad Dirty Dozen we opted to use a 7-point Likert scale [21], but other studies have used a 5-point Likert scale [11,20] or even a 9-point Likert scale [10]. Hence, it is difficult to compare samples and our findings need to be replicated using more reliable measures of the Dark Triad. However, an advantage in the present study was that of a relatively high age mean (31.96 years of age) and a relatively wide age range (between 18 and 71 years of age). Also, at least half the participants lived in partnership relations and had jobs whereas job-seekers and students accounted for just 10% each. These characteristics of the sample are important in the context of sociosexual behavior and attitudes. Although religious affiliation did not moderate the Dark Triad relationship to global sexual orientation,

our findings confirm the impact of religiousness/spirituality upon aspects of malevolent character, that is, deviant sexual orientation.

"Evelyn, I'm sorry. I just, uh... you're not terribly important to me."
From the movie *American Psycho*.

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