

Research Article

Sociosexuality Expanded: The Role of Light and Dark Personality Traits

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Most studies have viewed sociosexuality as being unidimensional, a continuum with two poles: restricted sociosexuality and unrestricted sociosexuality. Thus, there is a dearth of research on the tridimensional framework of sociosexuality concerning its determinants, especially Light personality traits. Therefore, the current study examined the predictive value of Light and Dark Triad traits by evaluating them simultaneously in the same sociosexuality prediction models (behavior, attitude, and desire) to provide a more nuanced picture of sociosexuality phenomena. This study's sample comprised 194 Greek participants (age range 19–48, $M_{age} = 23.39$, $SD = 4.60$; 167 females). This study's results provide evidence that while participants' sociosexuality desire may involve both the Light and Dark personality traits, sociosexuality behaviors are more likely to be predicted solely by a Dark personality trait (Psychopathy). This study's results also provide evidence that the same malevolent personality traits predict multiple sociosexual phenomena (i.e., multi-finality). At the same time, different malevolent and benevolent personality traits produce identical sociosexual phenomena (i.e., equifinality).

There is a dearth of research on the tridimensional framework of sociosexuality concerning its determinants, especially Light personality traits (Fernandez Del Rio et al., 2019). Sociosexuality is a term that includes individual differences in desire to engage in casual sex (Fernandez Del Rio et al., 2019). Most studies have viewed sociosexuality as being unidimensional, a continuum with two poles: restricted sociosexuality (i.e., preference for sex in long-term and committed relationships) and unrestricted sociosexuality (i.e., choice for short-term and no-strings-attached sex), following the classic approach of the Sociosexual Orientation Inventory.

However, even though sociosexuality was once thought to be unidimensional, there is now a growing body of research that views sociosexuality as having three dimensions: behavior, attitudes, and desire (Fernandez Del Rio et al., 2019). In particular, Penke and Asendorpf (2008) presented a tridimensional framework: sociosexual behavior (i.e., prior sexual experience), attitudes towards sex without commitment (i.e., views about casual sex), and sociosexual desire (i.e., dispositional motivation concerning the effort put forth in both short-term and long-term sexual relationships). Thus, a three key dimensions perspective may be used to comprehend sociosexuality or variations in a person's desire to engage in sexual encounters without intimacy, commitment, and other signs of emotional attachment (Penke & Asendorpf, 2008). UNESCO has recently published recommendations for scholars on sexuality and education, considering these three dimensions to treat sexuality (Jones et al., 2019).

Several studies in various contexts have validated the tridimensional structure of SOI-R (Barrada et al., 2018). However, still, there is little research on the differences between these three aspects of sociosexuality in terms of its predictors, such as individual traits (e.g., personality traits) and especially Light Triad traits (Nascimento et al., 2018). The current study seeks to expand the research literature by creating different prediction models for each sociosexual dimension, looking at the prediction value of Light and Dark personality traits.

Sociosexuality and Personality Traits

The Sexual Strategies Theory contends that humans have developed sophisticated mating tactics (Buss & Schmitt, 2016). Buss and Schmitt (2016) distinguished between short-term and long-term mating as two different sorts of mating strategies on a temporal dimension. Long-term mating involves commitment, investment, and strong bonds, while short-term mating involves casual hookups and brief affairs (Buss & Schmitt, 2016). These strategies were first viewed as being on opposing ends of the sociosexuality spectrum, defined as the desire to participate in sexual activity without intimacy or commitment (Penke & Asendorpf, 2008). However, recent studies have shown that short-term and long-term mating is not the two poles of a single bipolar continuum that are mutually incompatible but are mainly separate strategies connected to other factors differently (Jackson & Kirkpatrick, 2007).

Over the years, there has been a great deal of research on the influence of personality on sexual behavior, mainly from a sociosexuality viewpoint that is unidimensional (Bourdage et al., 2007) and utilizing the "Big Five" traits approach (Bourdage et al., 2007). The research looked at the "Dark personality," which was mainly examined as the "Dark Triad," in order to explain the personality differences. Narcissism, Machiavellianism, and Psychopathy are subclinical traits that define the Dark Triad of personality. The Dark Triad is socially harmful and affects people's behavior in romantic relationships. Narcissism is characterized by grandiosity, attention-seeking, lack of empathy, and entitlement. Manipulation and self-interest are two of Machiavellianism's core characteristics (Jones & Paulhus, 2009). Impulsivity, antisocial behavior, a lack of regret, and the inability to empathize or feel guilty are all traits of subclinical Psychopathy (LeBreton et al., 2006).

Previous studies highlighted the significant relationships between Dark Triad characteristics and unconstrained sociosexuality. Higher levels of dark traits have been linked to unrestricted sociosexuality (Stolarski et al., 2017), more sexual partners, and lowered standards for selecting casual partners (Jonason et al., 2009). Less essential relationships (i.e., unconstrained sociosexuality or casual sex) are significantly associated with higher Narcissism, Machiavellianism, and Psychopathy scores (Jonason et al., 2009). Thus, sociosexuality is significantly associated with the Dark Triad traits, particularly Machiavellianism and Psychopathy (Freyth & Jonason, 2023). The Dark Triad of personality is renowned for encouraging casual mating (Freyth & Jonason, 2023).

However, benevolent personality traits and sociosexuality have yet to receive much in-depth study. Interestingly, the Dark Triad of personality has attracted much attention in the literature, while the benevolent side of personality has not (Sevi & Dogruyol, 2020). Every person has a dark and a light side, and both sides influence personality. However, with most research focusing on the negative, more research needs to be done on the benevolent aspects of personality. The benevolent aspect of human nature needs to be better comprehended. A new personality scale has been developed to

study positive personality traits, while research is ongoing on negative traits (Sevi & Dogruyol, 2020). The Light Triad (LT; Kaufman et al., 2019), a scale that evaluates three Light personality traits, was created to fill this void. Specifically, Kaufman et al. (2019) created a scale comprising three interrelated yet different personality traits: Faith in Humanity, Humanism, and Kantianism. This scale attempts to express a loving and beneficent orientation towards others, highlighting how crucial "others" are to those higher up in the Light Triad scale. Understanding that the Light Triad is more than just the Dark Triad's opposite is also significant (Kaufman et al., 2019). "According to Conroy-Beam et al. (2015), "cooperative social relationships" can be used to conceive long-term mating partnerships. In light of this, individuals with Light personality traits may be more eager to engage in these cooperative interactions with others (Sevi & Dogruyol, 2020).

According to Kaufman et al. (2019), Faith in humanity is widely defined as the conviction of the inherent goodness of people. People who respect each person's worth and dignity are considered Humanists. Lastly, Kantianism gives a counterpoint to Machiavellianism from the frameworks of the Dark Triad by implying seeing individuals as goals unto themselves, not only as mere means to an end (Kaufman et al., 2019). The features of the Light Triad are relatively adversely correlated with those of the Dark Triad. They have also been connected to several factors associated with interpersonal relationships, such as attachment (Sevi & Dogruyol, 2020). Higher levels of the overall Light Triad personality score were explicitly linked to lower levels of sociosexual orientation in mating orientations, indicating a reduced tendency for casual mating (Kaufman et al., 2019).

Additionally, higher Light Triad scores are associated with higher levels of romantic, platonic, and altruistic love (Kaufman et al., 2019). These associations were the reverse for Dark Triad (Kaufman et al., 2019). Overall, the aforementioned research data shows that personality traits may function differently regarding mating because of the divergence between the Light and Dark personality traits in short-term mating (Sevi & Dogruyol, 2020).

This study

Increased sociosexuality is seen by most Western countries as a breach of expectations and regulations in relationships (Jackman, 2015). The current study is specifically carried out in the socio-cultural context of Greece, where traditional family life is valued (Grigoropoulos, 2023a, 2022b, 2021b). Furthermore, the Orthodox Church has a big influence on marriage and sexuality-related issues (Grigoropoulos, 2023b, 2022d). The Greek reporter (2014) reports that 79% of Greek respondents believe that extramarital affairs are ethically bad, 5% think they are acceptable, and 12% do not think they violate ethical standards. Greece has a very conservative culture and institutional framework when it comes to sexual conduct and attitudes (Grigoropoulos, 2022a, c, 2021a, 2019).

Previous studies show that Light Triad and Dark Triad traits connect differently to short- and long-term mating strategies (Tucakovic et al., 2022). Similar research demonstrated that Light and Dark personality traits predict different sexual behaviors rather than acting as opposed poles on a single spectrum of human personality (Sevi et al., 2020). Since the Light Triad traits have received much less attention concerning sociosexual phenomena, we especially sought to look at the predictive value of Light Triad traits relative to the Dark Triad traits. Thus, the association between benevolent and malevolent personality traits and promiscuous sociosexual behaviors, attitudes, and desires was

examined. The prediction of the multiple dimensions of sociosexuality (behavior, attitude, and desire) was expected to result from a complex interaction where the same benevolent and malevolent personality traits could predict multiple sociosexual phenomena (i.e., multi-finality) as well as multiple benevolent and malevolent character traits predicting identical sociosexual phenomena (i.e., equifinality). Such a perspective acknowledges the complexity of a person's internal processes

Based on previous research data, Dark Triad traits were expected to be positively associated with different sociosexual phenomena. Conversely, Light Triad traits were anticipated to show a negative correlation with various sociosexual phenomena.

Method

Sample and procedure

This study's sample comprised 194 Greek participants (age range 19–48, $M_{age} = 23.39$, $SD = 4.60$; 167 females). Most participants identified themselves as heterosexual (85.6%, $n = 166$), 8.2% ($n = 16$) as lesbian/gay, and 6.2% ($n = 12$) as bisexual. Students comprised most of the participants; 75.3% ($n = 146$) and 13.9% ($n = 27$) were university graduates, whereas 8.8% ($n = 17$) had a postgraduate degree, and 2.1% ($n = 4$) had completed secondary education. Google Forms was used to gather information online in October–November 2022. The sample was recruited using social networks (e.g., Facebook, LinkedIn) and the snowball method. You had to be at least 18 years old to participate in the survey. All participants were treated in compliance with the 1964 Helsinki Declaration. Participation was free, voluntary, and anonymous, with no payment. All respondents gave their informed permission before beginning the research. A minimum sample size of 98 is required to offer 80% power to detect a minor to moderate effect size for multiple linear regression with six predictors at $\alpha = 0.05$, according to a power analysis using G*Power 3.1 (Faul et al., 2009).

Measures

Sociodemographics Form. Participants reported their age, gender identity (1 = cisgender woman; 2 = cisgender man [other available alternatives were not chosen]), sexual orientation (1 = heterosexual; 2 = lesbian/gay; 3 = bisexual; 4 = open response [this option was not selected]), and educational level (under high school, with a high school diploma, as a student in college, with a university degree, or with a postgraduate degree).

The Light Triad traits. The Light Triad scale comprises 12 items to assess Kantianism (Example item, "I prefer honesty over charm"), Humanism (example item, "I tend to applaud the successes of other people"), and Faith in Humanity (example item, "I tend to trust that other people deal fairly with me"). Participants expressed their level of agreement with each statement on a scale of 1 (strongly disagree) to 5 (strongly agree). Composite scores were generated by averaging the results for each subscale item. A total score that measures the level of Light Triad traits may also be calculated by averaging all the elements on the scale (Kaufman et al., 2019).

The Dark Triad Dirty Dozen (Jonason & Webster, 2010) comprises 12 items (1 = strongly disagree, 7 = strongly agree) with four items for each dark trait: Machiavellianism (example item "I tend to manipulate others to get my way"), Narcissism

(example item "I tend to want others to admire me," and Psychopathy (example item, "I tend to be unconcerned with the morality of my actions"). The composite scores for each Dark Trait were created by averaging the scores of each subscale.

Sociosexual Orientation Inventory-Revised (SOI-R). The Revised Sociosexual Orientation measure comprises nine items to assess promiscuous sociosexual behavior (sample item "With how many different partners have you had sex within the past 12 months?"), attitude (sample item "I can imagine myself comfortable and enjoying "casual" sex with different partners") and desire (sample item "In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?"; Penke & Asendorpf, 2008). The response format ranged from 1 to 5, with the behavior facet's ratings ranging from 1 = 0 to 5 = 8 or more, the attitude facet's ratings ranging from 1 = strongly disagree to 5 = strongly agree, and the desire facet's ratings ranging from 1 = never to 5 = practically every day. By averaging the scores for each subscale, composite scores for each sociosexuality dimension were constructed. Lower scores indicated a more restricted sociosexuality, whereas higher scores indicated a greater predisposition toward unrestricted sociosexuality.

Statistical Analysis

The means, standard deviations, and reliability (Cronbach's α) of the different subscales scores were assessed. Pearson correlations were used to evaluate the relationships between the variables. Predictive models of each sociosexuality dimension were created using multiple regression analysis.

Results

We consider data to follow a normal distribution if skewness and kurtosis have absolute values less than 2.0 and 7.0, respectively (Byrne, 2016). Bivariate correlation was used to examine the relationships between the relevant variables. All the Light and Dark traits and sociosexual dimensions showed no deviations from normal distributions (see Table 1). Bivariate correlation analyses were conducted between Light and Dark Triad traits and sociosexual behavior, attitude, and desire (see Table 1).

	Mean	SD	Sk	Ku	1	2	3	4	5	6	7	8	9	α
Variables														
1. Faith in Humanity	3.21	0.73	-.140	-.199	_____									.73
2. Humanity	4.05	0.60	-.343	-.706	.341**	_____								.71
3. Kantianism	4.17	0.63	-.786	.243	.388**	.427**	_____							.62
4. Machiavellianism	1.98	0.76	.731	.242	-.094	-.298**	-.566**	_____						.78
5. Psychopathy	1.64	0.69	1.71	4.39	-.267**	-.208**	-.532**	.404**	_____					.70
6. Narcissism	2.45	0.91	.226	-.513	.025	-.050	-.366**	.478**	.220**	_____				.82
7. SOI Behavior	1.73	0.70	1.41	.265	.026	.009	-.258**	.236**	.324**	.147*	_____			.73
8. SOI Attitude	2.89	1.19	.135	-.920	.002	.054	-.220**	.139	.248**	.294**	.330**	_____		.82
9. SOI Desire	2.39	0.93	.522	-.397	-.288**	-.102	-.309**	.231**	.315**	.309**	.162*	.366**	_____	.77

Table 1. Bivariate Correlations between the study variables (n = 194)

Note. SOI = Sociosexuality

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

The sociosexual behavior dimension was negatively correlated with Kantianism and positively correlated with Machiavellianism, Psychopathy, and Narcissism. The sociosexual attitude dimension was negatively associated with Kantianism and positively associated with Psychopathy and Narcissism. The sociosexual desire dimension was negatively related to Faith in Humanity and Kantianism and positively related to Machiavellianism, Psychopathy, and Narcissism.

Three multiple regression analyses examined the unique Light and Dark Triad traits' ability to predict different sociosexual phenomena (i.e., behavior, attitude, desire). In particular, both Light and Dark personality traits regressed on each sociosexual dimension. Psychopathy was the only significant predictor of sociosexual behavior ($\beta = .257$, $p < .01$; adjusted $R^2 = 0.125$, $F(6, 187) = 5.59$, $p < .001$; see Table 2).

	<i>b</i>	SE <i>b</i>	β	<i>t</i>	Sig.	95%CI	VIF
Faith in Humanity	.125	.074	.131	1.69	.091	-.020,.271	1.31
Humanity	.139	.090	.120	1.54	.125	-.039,.317	1.32
Kantianism	-.201	.112	-.180	-.180	.073	-.421,.019	2.19
Machiavellianism	.078	.083	.085	.944	.346	-.085,.292	1.78
Psychopathy	.259	.082	.257**	3.17	.002	.098,.421	1.44
Narcissism	-.010	.060	-.013	-.170	.865	-.130,.109	1.37

Table 2. Standardized and unstandardized regression coefficients for Light and Dark Triad traits predicting Sociosexual behavior

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Narcissism ($\beta = .248, p < .01$) and Psychopathy ($\beta = .191, p < .05$; adjusted $R^2 = 0.121, F(6, 187) = 5.41, p < .001$) were significant predictors of sociosexual attitude (see Table 3).

	<i>b</i>	SE <i>b</i>	β	<i>t</i>	Sig.	95%CI	VIF
Faith in Humanity	.094	.125	.058	.748	.456	-.153,.341	1.31
Humanity	.224	.153	.124	1.59	.113	-.058,.545	1.32
Kantianism	-.310	.189	-.164	-1.63	.104	-.683,.064	2.19
Machiavellianism	-.168	.141	-.167	-1.19	.235	-.446,.110	1.78
Psychopathy	.326	.139	.191*	2.34	.020	.052,.600	1.44
Narcissism	.322	.103	.248**	3.13	.002	.120,.525	1.37

Table 3. Standardized and unstandardized regression coefficients for Light and Dark Triad traits predicting Sociosexual attitude

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

The results also showed that higher levels of Narcissism ($\beta = .261, p < .01$) and Psychopathy ($\beta = .178, p < .05$) predicted higher levels of sociosexual desire, while higher levels of Faith in Humanity predicted lower levels of sociosexual desire ($\beta = -.247, p < .01$; adjusted $R^2 = 0.192, F(6, 187) = 8.62, p < .001$; see Table 4).

	<i>b</i>	SE <i>b</i>	β	<i>t</i>	<i>Sig.</i>	95% <i>CI</i>	VIF
Faith in Humanity	-.314	.094	-.247**	-3.33	.001	-.500, -.128	1.31
Humanity	.080	.115	.052	.693	.489	-.147,.307	1.32
Kantianism	-.066	.142	-.044	-.461	.646	-.347,.215	2.19
Machiavellianism	.002	.106	.002	.019	.984	-.207,.211	1.78
Psychopathy	.239	.104	.178*	2.29	.023	.033, .445	1.44
Narcissism	.266	.077	.261**	3.44	.001	.114,.418	1.37

Table 4. Standardized and unstandardized regression coefficients for Light and Dark Triad traits predicting Sociosexual desire

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Discussion

The relationship between Light Triad traits and sociosexuality has scarcely been studied (Sevi et al., 2020). Therefore, the current study examined the predictive value of Light and Dark Triad traits by evaluating them simultaneously in the same sociosexuality prediction models to provide a more nuanced picture of sociosexuality phenomena.

This study's results show that Faith in humanity was the sole predictor among the Light Triad traits, where higher levels predicted less promiscuous sociosexual desire. Faith in humanity may explain lower sociosexual desire, as it is considered a broad tendency to seek the best in people and assume that most individuals are essentially good (Kaufman et al., 2019). Therefore, it is logically negatively associated with a desire for short-term and no-strings-attached sex, which may be linked with manipulateness and a lack of empathy toward others.

Regarding Dark Triad traits, Psychopathy was the only trait involved in all three components of sociosexuality. This result is not surprising since the Psychopathy Dark trait is linked to pathological lying and lack of guilt, and people higher in Psychopathy personality traits are characterized as manipulative (Alavi et al., 2018). Thus, this study's result aligns with previous research data demonstrating subclinical Psychopathy as a significant predictor of all sociosexuality dimensions (Fernandez Del Rio et al., 2019). Additionally, it was shown that people with higher Psychopathy personality traits are more promiscuous, which indicates a lack of commitment in long-term relationships (Brewer & Abell, 2015). Similarly, other studies also found a strong correlation between intentions toward infidelity, early sexual activity, and more sexual partners and Psychopathy personality traits (Brewer et al., 2015). The callousness, thrill-seeking, and impulsivity that are frequently seen in individuals with high levels of Psychopathy can explain this finding. As opposed to those with low levels of Psychopathy, these people have more lenient views regarding promiscuous sociosexual attitudes and desires and engage in it more frequently since they lack care and empathy for others and cannot control their urges (Sevi et al., 2020).

Narcissism also plays a role in the prediction of sociosexuality. In particular, higher levels of Narcissism was linked to a promiscuous attitude toward uncommitted sexual relationships and strong sociosexual desire but not with high sociosexual behavior (i.e., frequently having encounters of uncommitted sex). According to previous research, Narcissism is positively associated with desires for casual relationships (Atkinson et al., 2016) and negatively correlated with serious romantic relationships. Narcissists may have higher intentions regarding casual partnerships to satisfy their ego, grandiosity, and interpersonal arrogance (Alavi et al., 2018). Based on this study's findings, participants with narcissistic personality traits accept and desire promiscuous sexual relationships without developing emotional ties but are not engaging in them. People with high levels of Psychopathy personality traits are willing to, want to, and have sex without commitment, intimacy, or other signs of emotional attachment.

In order to provide a more nuanced picture of the relationship between these personality traits and sociosexuality phenomena, we examined Light and Dark personality traits in the same models of sociosexuality behavior, attitude, and desire. Interestingly, the preceding results show that both malevolent and benevolent sides hold predictive value regarding sociosexual desire. However, for actual sociosexual behavior, only the Dark Triad trait of Psychopathy explains variance beyond desires. This study's results also provide evidence that the same malevolent personality traits predict multiple sociosexual phenomena (i.e., multi-finality). At the same time, different malevolent and benevolent personality traits produce identical sociosexual phenomena (i.e., equifinality). Overall, the results indicate that while participants' sociosexuality desire may involve both the Light and Dark personality traits, sociosexuality behaviors are more likely to be predicted solely by a Dark personality trait, namely Psychopathy. Thus, the Light side of personality may not be sufficient to explain the transition from desire to behaviors as opposed to Psychopathy, the only predictor that explains actual engagement in sociosexual behavior. It should be noted that this intriguing discovery is consistent with research demonstrating that "bad" has higher predictive value than "good" across a variety of psychological dimensions (Tucakovic et al., 2022).

This study expands previous research by showing that the Light and Dark constructs are not opposites of one another and that Light personality traits are a valuable explanatory construct that accounts for particular variations different from Dark personality traits (Sevi et al., 2020). However, it should also be noted that not all cultures and environments necessarily see promiscuous sexual conduct or high sociosexuality scores as "dirty" (Davis & Whitten, 1987). Accordingly, some could claim that the Dark characteristics have been linked to some of humanity's greatest vices and virtues. This implies that whether a personality trait is malevolent or benevolent may rely on the observer or the circumstances (Garcia, 2020). In addition, human personality involves how we see ourselves, relate to others and society, and live our lives overall (Garcia, 2020).

Limitations

Future research may focus on comparable studies from other cultural contexts since sociocultural variations may be a reason for inconsistent findings between different studies findings. Because this study's participants are considered young, getting a more balanced sample of respondents from various age groups would also be helpful. Additionally,

alternative scales to evaluate the Dark Triad of personality, such as the Mach IV, Narcissistic Personality Inventory, and Self-Reported Psychopathy, should be useful in future studies.

Moreover, several studies have questioned the accuracy of the Dark Triad Dirty Dozen (see Paulhus & Jones, 2014). Specifically, according to research data (e.g., Kajonius et al., 2016), the Dark Triad Dirty Dozen assesses a Dark Dyad: an antisocial characteristic (an amalgamation of Machiavellianism and Psychopathy) and Narcissism.

Conclusion

By creating three sociosexuality prediction models (i.e., behavior, attitude, and desire), the current study shows that different sociosexuality dimensions have different associations with Light and Dark personality traits expanding previous research data (Nascimento et al., 2018). This study's findings show that the same malevolent personality traits predict different sociosexual dimensions (i.e., multi-finality). In addition, different malevolent and benevolent personality traits predict the same sociosexual dimensions (i.e., equifinality).

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