Dark personalities and general masochistic tendencies: Their relationships to giving and receiving sexualized pain

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ABSTRACT

Recent research has shown that a tendency to harm others goes hand in hand with a tendency to harm oneself. The present two studies further supported the notion that the joy of harming others and oneself has a common core by showing positive relationships between dark personality traits (particularly psychopathy) and sexual masochistic preferences and between general masochistic tendencies and sexual sadistic preferences. Despite the overlap between dark personality traits and general masochistic tendencies, they independently predicted the engagement in sexual sadomasochism. These relationships statistically held when controlling for the impact of basic personality (Study 1). Study 2 found that self-enhancement, openness to change, and low conservation values serve as motivators for a person's attraction to sexual sadomasochism and shed some light on the differences between sexual sadomasochism and the Dark Tetrad. Overall, people who score relatively high on dark personalities and masochism are particularly predisposed to engage in sexual sadomasochism, in both the dominant and the submissive roles.

1. Introduction

One may assume that people who like to harm others have little tendencies to harm themselves and that sadistic and masochistic people seek each other out to meet their needs. However, recent research has shown that sadistic and masochistic tendencies are positively related within the same person (Greitemeyer & Sagioglou, 2021; Sagioglou & Greitemeyer, 2020). That is, people with relatively high scores on antisocial traits had relatively high scores on masochistic enjoyment. The term “masochism” was originally coined to describe sexual behavior, but is now used more generally to describe non-sexual activities as well (Rozin, Guillot, Fincher, Rozin, & Tsukayama, 2013). In the present two studies, the relationships between sexual sadistic and masochistic preferences and antisocial personality traits and general masochistic tendencies are examined. It is predicted that there are positive relationships between antisocial personality traits and general masochistic tendencies and sexual sadistic preferences. Such a pattern of data would provide support for the idea that the joy of giving and receiving of (sexualized) pain has a common core.

1.1. Sadomasochistic sexual preferences

The term sadomasochism, which is a part of the broader BDSM (bondage, discipline, dominance, submission, and sadomasochism) concept (Brown, Barker, & Rahman, 2020), describes sexual experiences “that involve physical, psychological, or emotional pain or discomfort” (Simula, 2019, p. 2). It goes back to Richard von Krafft-Ebing, who used the terms sadism and masochism to describe the giving and receiving of sexualized pain. Paraphilic behaviors (including sexual masochism and sadism) have been shown to be associated with sexually coercive behavior (e.g., Baur et al., 2016) and sexual offending behaviors in general (e.g., Paquette & Brouillette-Alarie, 2020). It is important to note, however, that sadomasochistic sexual experiences typically involve power exchanges between consensual participants (Erickson & Sagarin, 2021). That is, the participating partners tell each other what they are willing and unwilling to do and often use safewords that the activities should stop. Importantly, the physiological feeling that arises from the experience of pain is not the mechanism that underlies sexual pleasure. Rather, the focus is on role plays that are symbolic of power or powerlessness. That is, giving and receiving pain is just a means to an end (i.e., creating status differences) and the consensual exchange of power is sexually arousing (e.g., Cross & Matheson, 2006; Wismeijer &
Van Assen, 2013).

Estimates of the prevalence of sexual sadomasochism vary considerably across studies. In one study, 1.8 % of sexually active people reported having had sadomasochistic sexual experiences in the past year (Richters, De Visser, Rissel, Grulich, & Smith, 2008). Another study found that 23.8 % of the participants had engaged in sexual masochistic behavior and 7.1 % in sexual sadistic behavior (Joyal & Carpentier, 2017). Even higher numbers were reported in a third study where 46.8 % of the participants reported having engaged in at least one sadomasochistic-related activity (Holvoet et al., 2017). These differences in the frequency of prevalence are partly due to the use of different definitions and classifications. In any case, most researchers agree that interest and engagement in sexual sadomasochism is not uncommon.

Historically, engagement in sexual sadism and masochism has been seen as signs of a pathological disorder (Labrecque, Potz, Larouche, & Joyal, 2021). Empirical data, however, suggest that sexual sadism is a continuously distributed trait, rather than considering it to be either present or absent (Longpre, Guay, Knight, & Benbouiche, 2018). Furthermore, sexually dominant and submissive persons are typically well-adjusted and engaged in sexual sadomasochism is not related to mental illness, history of abuse, or criminal behavior (for a review, Labrecque et al., 2021). Moreover, couples engaging in sexual sadomasochism are more likely to report high levels of relationship satisfaction (for reviews, Brown et al., 2020; Neef, Coppens, Huys, & Morrens, 2019).

1.2. Antisocial personalities and masochistic tendencies and their relationship with sadomasochistic sexual preferences

The present research examined the relationships between the engagement in sexual sadism and masochism and subclinical levels of antisocial personality traits and two forms of general masochistic tendencies (self-injurious behavior and benign masochism). Antisocial personality comes in various forms (Kowsalski, Rogoza, Saklofske, & Schermer, 2021; Rogoza, Kowsalski, Saklofske, & Schermer, 2022). One popular categorization is the Dark Tetrad taxonomy (Paulhus, 2014). Dark Tetrads traits are narcissism (e.g., high self-regard and a sense of superiority; Crowe, Lynam, Campbell, & Miller, 2019), Machiavellianism (e.g., people who manipulate and take advantage of others; Collison, Vize, Miller, & Lynam, 2018), psychopathy (e.g., the tendency to be callous and unemotional; Thomson, Bozgunov, Psederska, & Vasileva, 2019), and everyday sadism (e.g., joy in causing harm to others; Pfattheicher, Keller, & Knezovic, 2019). The four traits differ conceptually, but also have a common core as they are all antagonistic (Marcus & Zeigler-Hill, 2015; Paulhus, Curtis, & Jones, 2018). Previous research has shown mixed findings regarding the extent to which people who score relatively high on dark personalities are related to an interest in sexual sadomasochism. In one study (Baughman, Jonason, Veselka, & Vernon, 2014), psychopathy and narcissism were related to sadomasochism, whereas Machiavellianism was not. In another study (Lodi-Smith, Shepard, & Wagner, 2014), Machiavellianism predicted sadomasochism (but only in women), whereas psychopathy and narcissism did not.

Masochistic behavior comes in many forms, some are dangerous and others are harmless. Here, the role of nonsuicidal self-injury (NSSI) and benign masochism in predicting people’s interest in sexual sadomasochism is considered. NSSI is the deliberate injury to one’s own body tissue without the intention of suicide (Nock, 2010). Benign masochism is the human tendency to enjoy various apparently aversive activities, such as exhaustion after physical activity or eating spicy food. It is benign because it is not dangerous and people are aware of it (Rozin et al., 2013; Spoor & Horne, 2022). Engagement in NSSI is positively related to benign masochism, but only to a minor extent (Greitemeyer & Sagigouli, 2021). So far, no research has examined how general masochistic tendencies are related to sadomasochistic sexual preferences. Recent research suggests that both people with relatively high scores on the Dark Tetrad and general masochistic tendencies tend to prefer aversive stimuli (Sagigouli & Greitemeyer, 2020). In fact, antisocial personality traits are closely related to general masochistic tendencies in that people who are antagonistic to others tend to be self-antagonistic. For example, the Dark Tetrad traits have been shown to be positively related to benign masochism and NSSI (Greitemeyer & Sagigouli, 2021). Other research has shown that bitter taste preferences (which is part of the overall concept benign masochism, Rozin et al., 2013) are positively associated with malevolent personality traits (Sagigouli & Greitemeyer, 2016). Hence, it might be that there are positive relationships between sexual sadism and NSSI and benign masochism and between sexual sadomasochism and the Dark Tetrad. That is, people who like to give sexualized pain are prone to general masochistic tendencies, and people who like to receive sexualized pain are prone to antisocial personality traits.

1.3. Sex, age, and basic personality

Previous research has shown that an interest in sadomasochism is associated with the sex and age of the participant. Indeed, women more than men perceive pain as part of sex as appealing (Herbenick et al., 2017), show an interest in submissive sexual fantasies (Renaud & Byers, 1999), report masochistic desires and experiences (Joyal & Carpentier, 2017), and express a preference for a dominant partner (Lanciano, Soleri, Guglielmi, Mangiulli, & Curci, 2016). In terms of the participant’s age, it appears that younger people tend to play the submissive role, whereas older people are more interested in the dominant role (Holvoet et al., 2017). Hence, in both studies, it was controlled for participant sex and age.

Other research has shown that the engagement in sexual sadism and sexual masochism has significant relationships with basic personality traits. For example, one study found that preferences for sadomasochism were negatively related to neuroticism and agreeableness and positively related to extraversion, openness to new experiences, and conscientiousness (Wismeijer & Van Assen, 2013). Study 1 of the present research included a measure of the HEXACO model, which allows testing whether the relationships between sexual preferences and the Dark Tetrad and general masochistic tendencies hold when controlling for basic personality traits. HEXACO is a six-dimensional framework of personality structure (Honesty–Humility, Emotionality, extraversion, Agreeableness, Conscientiousness, Openness). Importantly, it has been argued that due to the conceptual overlap between Dark Tetrads and HEXACO (namely, low Honesty–Humility, Emotionality, Agreeableness, and Conscientiousness, Book et al., 2016), the Dark Tetrad traits do not show incremental validity beyond the HEXACO traits. However, in other studies, the Dark Tetrad did provide additional predictive validity (e.g., Fernández-del-Río, Ramos-Villagrá, & Barrada, 2020; Greitemeyer, 2022a). Hence, there have been mixed predictions as to whether the relationship between dark personalities and sexual sadomasochism will hold when controlling for the impact of the HEXACO traits.

1.4. Human values as a motivational foundation of sexual sadomasochism

Past theorizing has shown that basic human values—defined as broad desirable goals—guide the way people select their behavior (Rohan, 2000; Rokeach, 1973). According to Schwartz (1992), there are 10 universal social values that represent people’s basic motivations. The ten values are: security, tradition, conformity, benevolence, universalism, self-direction, stimulation, hedonism, achievement, and power. These values can be further organized along two dimensions, namely, self-transcendence values (benevolence and universalism) vs. self-enancement values (achievement and power) and conservation values (security, tradition, and conformity) vs. openness to change values (self-direction, stimulation, and hedonism). Both dark personality traits and benign masochism have been shown to be related to these
human values. People with relatively high scores on dark personality traits are characterized by a strong endorsement of self-enhancement values and low endorsement of self-transcendence values (Balakrishan, Plouffe, & Saklofske, 2017; Greitemeyer, 2022b; Kajonius, Persson, & Jonason, 2015). Benign masochists have high scores on openness to change and self-enhancement values (Sagioglou & Greitemeyer, 2020).

Study 2 of the present research tested whether the same human values would be predictive of the engagement in sexual sadomasochism.

### 1.5. The present research

Two studies tested the hypotheses that sexual sadistic preferences are related to general masochistic tendencies and that sexual masochistic preferences are related to the Dark Tetrad. In regression analyses, it was tested whether the relationship between the Dark Tetrad and sexual masochism would hold statistically when controlling for the impact of general masochistic tendencies. Likewise, it was tested whether the relationship between general masochistic tendencies and sexual sadism would hold when controlling for the impact of the Dark Tetrad. If the relationships remain significant, it would mean that the Dark Tetrad and general masochistic tendencies, while related, independently contribute to people's sadomasochistic sexual preferences.

In both studies, all data were collected before any analyses were performed, and all data exclusions and variables analyzed are reported. Participants learned that the data are analyzed anonymously, that participation is voluntary, and that they can stop responding to the questions at any time. The data for both studies are openly accessible at https://osf.io/za3et/.

### 2. Study 1

Participants indicated their preferences for and prior engagement in sexual sadism and sexual masochism. Furthermore, they responded to well-established scales of the Dark Tetrad, NSSI, and benign masochism. It was hypothesized that there were positive relationships between sexual sadism and the two masochism measures and between sexual masochism and the Dark Tetrad traits. Regression analyses examined whether the Dark Tetrad traits and general masochistic tendencies would independently contribute to the prediction of sexual sadomasochism. In these analyses, it was also controlled for participant sex and age, as well as basic personality traits.

#### 2.1. Method

Participants were invited via various social network groups (e.g., Facebook friends of two research assistants). No power analyses were conducted to estimate the required sample size, but rather the aim was to run as many participants as possible. The final sample comprised 238 individuals (157 females, 75 males, 6 other). A sensitivity analysis showed that with this sample size, the study had 80% statistical power to detect a correlation of $r \geq 0.18$, corresponding to small to medium sized (and larger) effects. The six “other” participants were omitted for the regression analyses that include participant sex. One-hundred and eighty-one individuals reported to be heterosexual, 7 were homosexual, 39 bisexual, and 11 reported to have some other sexual orientation.

After participants provided demographic data, they responded to the 60-item HEXACO-Personality Inventory (Ashton & Lee, 2009). For each of the six factors, there were 10 items on a 5-point scale (1—strongly disagree, 2—disagree, 3—neutral (neither agree nor disagree), 4—agree, 5—strongly agree). Scale reliabilities were satisfactory (Honesty-Humility: $\alpha = 0.72$; Emotionality: $\alpha = 0.77$; Extraversion: $\alpha = 0.80$; Agreeableness: $\alpha = 0.78$; Conscientiousness: $\alpha = 0.80$; Openness to Experience: $\alpha = 0.67$).

The Short Dark Triad (Jones & Paulhus, 2014) was employed to assess narcissism (sample item: “People see me as a natural leader,” $\alpha = 0.68$), Machiavellianism (sample item: “I like to use clever manipulation to get my way,” $\alpha = 0.75$), and psychopathy (sample item: “People who mess with me always regret it,” $\alpha = 0.70$). The Assessment of Sadistic Personality scale (Plouffe, Saklofske, & Smith, 2017) was employed to assess everyday sadism (sample item: “I never get tired of pushing people around,” $\alpha = 0.78$). There were nine items for each of the scales; the scale ranged from 1 (completely disagree) to 5 (completely agree).

Next, participants responded to the benign masochism scale (Rozin et al., 2013). They were asked to indicate their liking of 26 masochistic experiences (e.g., sweating when one eats spicy foods), using a slider from 1 (not at all) to 100 (very much). Reliability was: $\alpha = 0.76$. To assess NSSI, participants responded to the Self-Harm Information Form developed by Croyde and Waltz (2007). This scale includes 17 injurious self-harm behaviors (e.g., “Bitten your fingernails enough to cause bleeding or pain” and “Burned yourself on purpose,” $\alpha = 0.85$). For each item, participants reported how often they had engaged in the behavior over their lifetimes, using a scale from 1 (never) to 5 (very often).

Preferences for and prior engagement in sexual sadism and sexual masochism were assessed with items from the Sadomasochism Checklist (Weierstall & Giebel, 2017). Participants received a list of 12 sexual sadistic (e.g., “Clawing, pinching, or biting your partner during sexual play”) and the corresponding sexual masochistic preferences (“Being clawed, pinched, or bitten by your partner during sexual play”). For each of the 24 items, participants reported on how often they had a desire for it and whether they had already tried it. Both were assessed on a scale ranging from 1 (never) to 4 (often). Desire and prior experience were highly correlated (sexual sadism: $r = 0.76$; sexual masochism: $r = 0.79$), and were thus combined into an overall index of sexual sadism ($\alpha = 0.92$) and sexual masochism ($\alpha = 0.94$), respectively.\(^1\)

### 2.2. Results

Descriptive statistics and intercorrelations of all measures are shown in Table 1. Sexual sadism and sexual masochism correlated positively. Sexual sadism was positively correlated with all traits of the Dark Tetrad, as well as with NSSI and benign masochism. Sexual masochism was positively correlated with psychopathy, NSSI, and benign masochism.\(^2\) Female participants scored higher on sexual masochism and lower on sexual sadism than did male participants. With regard to basic personality, sexual sadism was positively correlated with Openness and negatively correlated with Honesty-Humility and Conscientiousness. Sexual masochism was positively correlated with Openness and negatively correlated with Honesty-Humility, Extraversion, and Conscientiousness. NSSI and benign masochism were moderately positively correlated and both were positively correlated with psychopathy and everyday sadism. Benign masochism was also positively correlated with narcissism.

Two multiple regressions were performed next. In the first analysis, sexual sadism was regressed on narcissism, Machiavellianism, psychopathy, everyday sadism, NSSI, benign masochism, Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, Openness, as well as participant sex and age. The overall regression was significant, $F(14, 217) = 4.43, p < .001, R^2 = 0.22$. Psychopathy, $\beta = 0.24, p = .007$, and benign masochism, $\beta = 0.15, p = .033$, were still positively related to sexual sadism, whereas Extraversion was negatively

\(^1\) My original plan was to conduct separate analyses for desire and prior experience. However, for the sake of brevity and because the pattern of findings was very similar for both, the following analyses employ the overall indices.

\(^2\) Six relationships each were examined to test the hypotheses (the correlations between sexual sadism and sexual masochism, respectively, and the two masochism measures and the four Dark Tetrad traits). When applying a Bonferroni correction to control for false positives because of multiple comparisons (i.e., instead of using the $p < .05$ criterion, the null hypothesis was only rejected if the $p$-value was $< 0.0083$), the relationship between sexual sadism and NSSI was no longer significant.
Table 1  
Means, standard deviations, and bivariate correlations (Study 1).

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<thead>
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<th>M</th>
<th>SD</th>
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<th>15</th>
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<tr>
<td>1. Participant sex</td>
<td>-</td>
<td>-</td>
<td>0.27***</td>
<td>0.05</td>
<td>0.21***</td>
<td>0.06</td>
<td>0.11**</td>
<td>0.06</td>
<td>0.07</td>
<td>0.12</td>
<td>0.09</td>
<td>0.14*</td>
<td>0.02</td>
<td>0.34**</td>
<td>0.01</td>
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<td>2. Participant age</td>
<td>27.4</td>
<td>7.0</td>
<td>0.27***</td>
<td>0.14***</td>
<td>0.09***</td>
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<td>3. Sexual sadism</td>
<td>1.58</td>
<td>0.46</td>
<td>-0.23**</td>
<td>-0.03</td>
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<tr>
<td>4. Narcissism</td>
<td>2.72</td>
<td>0.59</td>
<td>0.19***</td>
<td>0.02</td>
<td>0.08</td>
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<td>5. Machiavellianism</td>
<td>2.66</td>
<td>0.61</td>
<td>0.11***</td>
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<td>0.03</td>
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<tr>
<td>6. Psychopathy</td>
<td>1.97</td>
<td>0.64</td>
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<tr>
<td>7. Openness</td>
<td>3.61</td>
<td>0.61</td>
<td>0.17***</td>
<td>0.01</td>
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<td>8. Extraversion</td>
<td>3.17</td>
<td>0.61</td>
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<td>9. Emotionality</td>
<td>3.43</td>
<td>0.62</td>
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<tr>
<td>10. Agreeableness</td>
<td>3.74</td>
<td>0.52</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
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Note: Participant sex is coded: 1 = male, 2 = female. NSSI = Nonsuicidal self-injury.

4. Sexual sadism, related, received a significant regression weight. Openness, β = 0.15, p = .020, were positively related to sexual masochism, whereas Honesty-Humility, β = −0.16, p = .038, and Extraversive, β = −0.19, p = .010, were negatively related. Participant sex also received a significant regression weight, β = 0.27, p < .001.

2.3. Discussion

As could be expected, sexual preferences were related to their corresponding inclinations. That is, all traits of the Dark Tetrad predicted sexual sadism, whereas both measures of general masochistic tendencies predicted sexual masochism. Of note, and as hypothesized, sexual sadism was also positively related to both measures of general masochistic tendencies and sexual masochism was positively related to psychopathy. Both sexual sadism and sexual masochism were positively related to Openness and negatively related to Honesty-Humility and Conscientiousness. Sexual masochism was also negatively related to Extraversive. When controlling for basic personality, as well as gender and age, however, psychopathy remained a significant predictor of sexual masochism and benign masochism remained a significant predictor of sexual sadism. Overall, the data support the idea that there is a common core that underlies the joy of giving and receiving (sexual) pain.

As in previous research (Greitemeyer & Sagioglou, 2021; Sagioglou & Greitemeyer, 2020), general masochistic tendencies and the Dark Tetrad were positively correlated. Likewise, sexual sadism and sexual masochism were positively correlated. Importantly, however, the Dark Tetrad (namely, psychopathy) and general masochistic tendencies (namely, benign masochism) independently contributed to the prediction of sexual sadomasochism, suggesting that both people with relatively high scores on antagonistic personality traits and people with masochistic tendencies are prone to sexual sadomasochism, but for (at least partly) different reasons.

The finding that psychopathy was related to both sexual sadism and masochism beyond the HEXACO traits contributes to the debate about whether the Dark Tetrad is redundant with the HEXACO model (Book et al., 2016). Although there is overlap between the Dark Tetrad and the HEXACO traits, psychopathy provides additional useful information in predicting the engagement in sexual sadomasochism.

Study 2 aimed to provide another test of the hypotheses that sexual sadistic preferences are positively related to general masochistic tendencies and that sexual masochistic preferences are positively related to antisocial personality traits. Another aim was to examine the motivational foundations of why people engage in sexual sadism and sexual masochism. One of the main underlying motives why people engage in sexual sadomasochism is related to the exchange of power (e.g., Cross & Matheson, 2006; Wismeijer & Van Assen, 2013). Hence, it was expected that self-enhancement values would be positively associated with sexual sadomasochism. As sexual sadomasochism is associated with a sense of adventure (Williams, Prior, Alvarado, Thomas, & Christensen, 2016), it was further anticipated that conservation values would be negatively associated with sexual sadomasochism. Finally, sexual sadomasochism can be viewed as a type of recreational activity (Labrecque et al., 2021), undertaken for pleasure. Hence, there should be a positive relationship between openness to change values and sexual sadomasochism.
3. Study 2

3.1. Method

As in Study 1, participants were invited via various social network groups. However, none of the social network groups overlapped with those from the first study. The final sample comprised 286 individuals (187 females, 96 males, 3 other; mean age = 27.4 years, SD = 7.0). With this sample size, there is 80% power to detect an r of 0.16. The three “other” participants were omitted for the following analyses that include participant sex. Two-hundred and thirteen individuals reported to be heterosexual, 13 were homosexual, 41 bisexual, and 19 reported to have some other sexual orientation.

The procedure and the materials were similar to Study 1. The same scales measuring the Dark Tetrad (narcissism: α = 0.75, Machiavellianism: α = 0.79, psychopathy: α = 0.73, everyday sadism: α = 0.83), NSSI (α = 0.86), and benign masochism (α = 0.77) were employed. Sexual sadistic and masochistic preferences were also assessed as in Study 1. Once again, desire and prior experience were highly correlated (sexual sadism: r = 0.76; sexual masochism: r = 0.73) and were combined into an overall index of sexual sadism (α = 0.92) and sexual masochism (α = 0.93), respectively.

To assess human values, participants responded to the German version of the Portraits Value Questionnaire (Schmidt, Bamberg, Davi, Herrmann, & Schwartz, 2007). They received 21 short verbal portraits of a different person (e.g., “Being very successful is important”), and the participants indicated to what extent they are similar to this person, on a scale from 1 (not like me at all) to 6 (very much like me). Scale reliabilities were acceptable (self-transcendence: α = 0.61; self-enhancement: α = 0.71; conservation: α = 0.65; openness to change: α = 0.71).

3.2. Results

Descriptive statistics and intercorrelations of all measures apart from the social values are shown in Table 2. As in Study 1, sexual sadism and sexual masochism were positively correlated. Both sexual sadism and sexual masochism were positively correlated with all traits of the Dark Tetrad, as well as with NSSI and benign masochism.3

In a multiple regression, sexual sadism was regressed on narcissism, Machiavellianism, psychopathy, everyday sadism, NSSI, benign masochism, as well as participant sex and age. $F(8, 274) = 11.03, p < .001, R^2 = 0.24$. Psychopathy, $\beta = 0.21, p = .006$, NSSI, $\beta = 0.13, p = .025$, and benign masochism, $\beta = 0.22, p < .001$, were still positively related to sexual sadism. Participant sex also significantly predicted sexual sadism, $\beta = -0.16, p = .006$. None of the other predictor variables received a significant regression weight. Sexual masochism was regressed on the same predictor variables, $F(8, 274) = 9.92, p < .001, R^2 = 0.23$. Psychopathy, $\beta = 0.24, p = .001$, NSSI, $\beta = 0.19, p = .001$, and benign masochism, $\beta = 0.18, p = .001$, received significant regression weights.

Descriptive statistics of the social values measures, as well as their correlations with sexual sadism, sexual masochism, the Dark Tetrad traits, NSSI, and benign masochism are shown in Table 3. Both sexual sadism and sexual masochism were positively related to self-enhancement and openness to change values and negatively related to conservation values. All Dark Tetrad traits were positively related to self-enhancement values and negatively related to self-transcendence values (apart from narcissism). Narcissism and psychopathy were positively related to openness to change values and both were negatively related to conservation values. NSSI was positively related to self-enhancement values, whereas benign masochism was positively related to self-transcendence and openness to change values and negatively related to conservation values.

Next, sexual sadism was regressed on self-transcendence, self-enhancement, conservation, and openness to change values, $F(4, 281) = 7.05, p < .001, R^2 = 0.09$. Self-enhancement, $\beta = 0.14, p = .019$, conservation, $\beta = -0.12, p = .049$, and openness to change values, $\beta = 0.19, p = .003$, received a significant regression weight. Finally, sexual masochism was regressed on the same predictor variables, $F(4, 281) = 8.59, p < .001, R^2 = 0.11$. Self-enhancement, $\beta = 0.18, p = .003$, conservation, $\beta = -0.19, p = .003$, and openness to change values, $\beta = 0.16, p = .012$, significantly predicted sexual masochism.

3.3. Discussion

As predicted, sexual sadistic preferences were positively related to both measures of general masochism, whereas sexual masochistic preferences were positively related to all traits of the Dark Tetrad. As in Study 1, in multiple regressions, psychopathy appeared to have the most robust association with sexual masochism among the Dark Tetrad traits and remained a significant predictor when controlling for the impact of general masochistic tendencies (as well as demographics). Likewise, both measures of general masochistic tendencies were still positively related to sexual sadism when controlling for the impact of dark personality and demographics. Overall, the data suggest that people who have relatively high scores on psychopathy and are prone to general masochistic tendencies enjoy both giving and receiving sexualized pain.

A further aim was to examine the motivational roots of why people engage in sexual sadomasochism. Results suggest that self-enhancement, low conservation, and openness to change values are the motivations behind why people engage in sexual sadomasochism. As in previous research (Balakrishnan et al., 2017; Greitemeyer, 2022b; Kajonius et al., 2015), participants with relatively high scores on dark personalities had high scores on self-enhancement values and low scores on self-transcendence values. Low scores on self-transcendence values reflect that people with relatively high scores on antagonistic personality traits tend to care little about the well-being of other people. As self-transcendence values were not related to the engagement in sexual sadomasochism, it appears that people do not engage in sexual sadomasochism because they have little regard for the well-being of others. This finding is consistent with the observation that the typical sexual sadomasochistic partnership is characterized by respect to the partner (Jozíková, 2013). Consensual sexualized physical pain is primarily about the exchange of power between consensual participants rather than the goal of causing harm to the partner (e.g., Cross & Matheson, 2006; Wismeijer & Van Assen, 2013). In contrast, individuals who score high on the Dark Tetrad (in particular, everyday sadism) take pleasure in seeing others suffer harm (e.g., Greitemeyer, Weiss, & Heuberger, 2019).

4. General discussion

Two studies showed that people's sadistic and masochistic sexual preferences correspond well to their general antisocial and masochistic inclinations. Whereas people who score relatively high on dark personalities are prone to sexual sadism, people who engage in self-harm are prone to sexual masochism. More importantly, results also showed that people who score relatively high on dark personalities (in particular, psychopathy) are positively related to sexual masochism and general masochistic tendencies are positively related to sexual sadism. On a more general level, these findings suggest that (sexual) sadistic and masochistic tendencies are positively related with each other within the same person and that there is a common core that underlies the tendency that the joy of inflicting (sexual) pain goes hand in hand with the joy of receiving (sexual) pain.

Importantly, dark personality traits and general masochistic tendencies had an independent impact on the engagement in sexual sadomasochism. Applying a Bonferroni correction to control for false positives did not change this pattern of findings.
sadomasochism. The regression analyses showed that the link between dark personality traits (i.e., psychopathy) and the engagement in sexual sadomasochism held when controlling for the impact of general masochistic tendencies, and vice versa. That is, although part of the underlying processes why antisocial personality traits and general masochistic tendencies are related to sexual sadomasochism might be the same (e.g., the affinity toward aversive states), there are also some different, non-overlapping reasons. Elucidating the exact mechanisms why antisocial personality traits and why general masochistic tendencies are related to sexual sadomasochism is an important avenue for future research.

Sexual sadism and sexual masochism were correlated with some of the basic HEXACO measures. Both were positively correlated with Openness, which replicates previous research (Wismeijer & Van Assen, 2013), and both were negatively correlated with Honesty-Humility and Conscientiousness. Furthermore, sexual masochism, but not sexual sadism, was positively correlated with Extraversion, which is consistent with a previous study (Hébert & Weaver, 2014) showing that dominants scored higher than submissives on Extraversion. Importantly, however, the interplay between sexual sadomasochism and dark personality traits and general masochistic tendencies, respectively, remained significant when controlling for basic personality traits, suggesting that the more narrow Dark Tetrad traits, as well as the two measures of general masochistic tendencies massochism, provide additional useful information beyond the broad HEXACO personality traits (cf. Book et al., 2016).

Study 2 tested the underlying motivation for why people engage in sexual sadomasochism. Results showed that self-enhancement values were positively related to sexual sadism and sexual masochism, which corroborates previous research (Cross & Matheson, 2006) that at the center of sexual sadomasochism is symbolic power or powerlessness rather than the physiological feeling of giving or receiving pain. The finding that openness to change values were positively related to sexual sadomasochism is consistent with the idea that sexual sadomasochism can be viewed as a leisure or recreational activity that has positive psychological benefits (Williams et al., 2016). Finally, conservation values were negatively related to sexual sadomasochism, which reflects that sexual sadomasochism experiences are associated with a sense of adventure (Williams et al., 2016).

Interestingly, self-transcendence values were not related to sexual sadomasochism, suggesting that practitioners of sexual sadomasochism are not primarily interested in harming their partner. In contrast, apart from narcissism, all Dark Tetrad traits were negatively related to self-transcendence values, which reflects their low concern for the well-being of others. It thus appears that although sexual sadomasochism and dark personalities are closely related, they also differ in that people who score relatively high on the Dark Tetrad are antagonistic (Marcus & Zeigler-Hill, 2015; Paulhus et al., 2018), whereas most practitioners of sexual sadomasochism are not. Overall, the present findings suggest that practitioners of sexual sadomasochism tend to score relatively high on dark personalities (and general masochistic tendencies), but most of them do not differ from the general population on how well they get along with other people (cf. Brown et al., 2020).

A limitation of the present studies is the reliance on self-report measures. Although anonymity was stressed, for the sake of social desirability, participants may not have accurately reported on their engagement in sexual sadomasochism. In fact, the mean levels of reported engagement in sexual sadism and sexual masochism were quite low and it is unclear whether the participants indeed have little desire and prior experience or whether they were just reluctant to admit that they have sexual sadomasochistic tendencies. The same applies to the measures of dark personalities and general masochistic tendencies. Notably, however, it appears that those individuals who score higher on Machiavellianism and psychopathy are less concerned with social desirability (Kowalski, Rogoza, Vernon, & Scherner, 2018).

To conclude, recent research has shown that malevolent personality traits are positively related to masochistic enjoyment (Greitemeyer & Sagioglou, 2021; Sagioglou & Greitemeyer, 2020). That is, people with...
relatively high scores on antisocial preferences tend to be prone to masochistic tendencies. Likewise, in the present research desire for and engagement in sexual sadism was positively correlated with sexual masochism. On the other hand, many people do have a clear preference for one sexual role and only a minority identifies as switches (on average around 30%); Botta, Nimbi, Tripodi, Silvaggi, & Simonelli, 2019; Jansen, Fried, & Chamberlain, 2021; Martínez, 2018). (Sexual) sadism and masochism appear to have a common core, but they are also conceptually distinct in that most people have a preference as to whether they either want to inflict (sexual) pain or receive it.

Declaration of competing interest

The author has no declarations of interest.

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References


