



“It’s All in Your Head”: Personality Traits and Gaslighting Tactics in Intimate Relationships

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Abstract

Background Gaslighting is a form of psychological/emotional abuse inflicted upon an intimate partner that includes manipulative tactics such as misdirection, denial, lying, and contradiction – all to destabilize the victim/survivor. Compared to other forms of intimate partner abuse, gaslighting remains underexplored in the literature.

Aims/Purpose In this preregistered study, we aimed to explore correlates between the Dark Tetrad traits (i.e., grandiose narcissism, vulnerable narcissism, Machiavellian tactics, Machiavellian views, primary psychopathy, secondary psychopathy, and sadism) and acceptance of gaslighting tactics in intimate relationships.

Method Participants ($N = 315$; $M_{\text{age}} = 42.39$; 62.2% women) were recruited online and completed an online questionnaire. We developed and internally validated the Gaslighting Questionnaire, a 10-item self-report measure of acceptance of gaslighting tactics in intimate relationships.

Results All the Dark Tetrad traits were associated with more acceptance of gaslighting tactics in intimate relationships, with primary psychopathy, Machiavellian tactics, and sadism emerging as significant predictors in the regression. We also examined sex differences. Compared to women, men found deploying gaslighting tactics more acceptable, and this was largely driven by sex differences in primary psychopathy. Further, men high in vulnerable narcissism demonstrated the greatest acceptance of gaslighting tactics.

Conclusions These findings provide foundational information for understanding gaslighting tactics in intimate partner abuse and may have practical implications for relationship counsellors and clinicians practicing in this space. For example, the present findings indicate that personality assessment can be a valuable tool for estimating a client’s propensity to gaslight.

Keywords Gaslighting · Intimate Partner Violence · Dark Tetrad · Narcissism · Psychopathy · Machiavellianism · Sadism

Introduction

Intimate Partner Violence (IPV) refers to violence and abuse between individuals in an intimate partnership (Jewkes, 2002) and includes not only physical violence but also psychological

and emotional abuse (World Health Organisation, 2012). The global prevalence of IPV (Sardinha et al., 2022) highlights the critical importance of ongoing research to better understand, manage, and prevent the phenomenon. In the current research, we explore an understudied form of manipulation and control in intimate relationships – gaslighting.

Gaslighting is a type of psychological and emotional abuse that involves an abuser (the “gaslighter”) attempting to make a victim/survivor (the “gaslightee”) seem or feel “crazy” by creating a “surreal” interpersonal environment (Sweet, 2019,). Gaslighting is often deployed in intimate

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relationships with an unequal power balance and is considered a core feature in intimate partner abuse (Sweet, 2019). Interestingly, despite the controlling nature of gaslighting (Logan et al., 2022), this insidious form of abuse is absent from the Duluth Model-Power and Control Wheel (Pence & Paymar, 1993), which outlines various controlling and manipulative intimate relationship behaviour. Although gaslighting likely combines elements of the wheel, such as minimising, denying, blaming, and the use of isolation, intimidation, and coercive control, the doubting of one's reality that is characteristic of gaslighting (Stark, 2019; Sweet, 2019) is not captured.

Unlike other forms of intimate partner abuse where there may be overt indicators of abuse (e.g., physical signs, insults, or other overt controlling behaviours), gaslighting may operate on a discrete and covert level (Stern, 2007). Gaslighting tactics include constant misdirection, denial, lying, and contradiction – all to destabilize a target (Bhatti et al., 2021; Sweet 2019). By destabilizing a target, gaslighting ultimately prevents them from seeking support and resources that could help them escape the abuse as they no longer trust their surroundings (Sweet, 2019). There is even evidence to suggest that, in the long term, psychological abuse can be more harmful than physical abuse (Anderson et al., 2003). Compared to other forms of intimate partner abuse, such as physical forms and emotional forms, limited research has explored gaslighting. Here, we extend recent research linking socially aversive personality traits to gaslighting (see Miano et al., 2021) by exploring the associations between the Dark Tetrad traits (i.e., narcissism, Machiavellianism, psychopathy, and sadism) and facets and perceived acceptability of gaslighting tactics. Findings of this novel exploration of personality correlates and gaslighting tactics provides foundational directions for future research, as well as practical implications for relationship counsellors and clinicians.

The Dark Tetrad Traits and Intimate Partner Abuse

The Dark Tetrad of personality comprises the subclinical traits of narcissism, Machiavellianism, psychopathy, and sadism (Chabrol et al., 2009). Intercorrelated but distinct, the traits are collectively considered socially aversive (Paulhus, 2014) and antisocial (Chabrol et al., 2017). Narcissism is characterized by grandiosity and egoism (Koladich & Atkinson, 2016), Machiavellianism by cynicism and manipulation of others (Abell & Brewer, 2014), psychopathy by impulsivity, low empathy, and low guilt (Viding & McCrory, 2018), and sadism by the enjoyment of psychologically and/or physically harming others (Buckels et al., 2013). The traits are linked to an opportunistic, exploitative mating style (Jonason et al., 2012) and are associated with aggression (Jain et al., 2022) and IPV (Tetreault et al., 2021).

Considerable research has explored associations between the Dark Tetrad traits and IPV, although the correlations are not equivalent. People with higher levels of these traits express more desire for control in intimate relationships (Hughes & Samuels, 2021). However, Machiavellianism and psychopathy, but not narcissism, correlate with increased perpetration of emotional abuse (Carton & Egan, 2017), with psychopathy as the strongest correlate of various direct (e.g., physical abuse), indirect (e.g., frightening a partner), and controlling forms of IPV, especially among men (Kiire, 2017). Other research has found only sadism to correlate with physical IPV, and only narcissism to *not* correlate with verbal IPV (Tetreault et al., 2021). Surprisingly, one study found no associations between the Dark Tetrad traits and perpetration of physical IPV (Plouffe et al., 2022) which, the authors speculated, was a methodological artifact (e.g., failure to consider context, restricted range, reason for abuse). We contend that another reason for the inconsistencies may be a failure to consider the multifaceted nature of the traits.

Facets of psychopathy and narcissism have been explored in relation to IPV. Primary psychopathy (callousness and manipulation) and secondary psychopathy (impulsivity and antisociality) are both related to psychological and physical aggression (Plouffe et al., 2020) and control (Brewer et al., 2018) in intimate relationships. However, other research has found only primary psychopathy to correlate with physical assault, psychological aggression, and sexual coercion (Iyican & Babcock, 2018). For facets of narcissism, grandiose narcissism (grandiosity and superiority) has a direct relationship with psychological abuse, whereas vulnerable narcissism (contingent self-esteem, ego-fragility) is indirectly linked to psychological abuse via romantic jealousy (Ponti et al., 2020). Previous research has found no associations between grandiose narcissism, vulnerable narcissism, psychopathy, and gaslighting tactics in relationships (Arabi, 2023). However, the authors assessed gaslighting via a single, informant-report item (i.e., “Have you encountered attempts by this partner to deny your perception of reality, thoughts or feelings”). Thus, an investigation into these traits and gaslighting using a more comprehensive measure is warranted.

Aims of Current Study

The aim of the current study is to explore the relationships between the Dark Tetrad traits and gaslighting. Given the probable bias that exists with direct assessment of the perpetration of abuse in intimate relationships (Ferrer-Perez et al., 2020), we indirectly assess the perpetration of gaslighting by assessing the *acceptance* of gaslighting tactics in intimate relationships. As differential patterns of findings have emerged for facets of psychopathy (i.e., primary and

secondary) and narcissism (i.e., grandiose and vulnerable), and IPV tactics (see Iyican & Babcock, 2018; Plouffe et al., 2020; Ponti et al., 2020), we explore these facets and acceptance of gaslighting. We also explore acceptance of gaslighting and facets of Machiavellianism – specifically Machiavellian views (i.e., a cynical view of others) and tactics (i.e., interpersonal exploitation). These facets are yet to be explored in relation to relationship abuse; however, given Machiavellian views likely generate the callous and exploitative tactics (Monaghan et al., 2020), there is rationale for both facets to relate to acceptance of gaslighting tactics.

Sadism includes vicarious (i.e., enjoying watching others be hurt) and direct (i.e., enjoying hurting others) facets, with direct sadism further delineated into physical and verbal forms (Paulhus & Dutton, 2016). Although we aimed to indirectly assess perpetration of gaslighting via acceptance of tactics, the goal was to make inferences about engaging in the behaviour. Thus, vicarious sadism was not relevant to our aim. Further, as gaslighting is considered a form of psychological abuse, the facet of direct physical sadism was also not of relevance. Therefore, unlike psychopathy, narcissism, and Machiavellianism, we assessed sadism as a total trait. As detailed in our preregistration¹, we expected the facets of the Dark Tetrad traits to be associated with greater acceptance of gaslighting tactics. In addition, as research indicates (1) women and men may engage in different forms of IPV (Chan, 2011; Kiire, 2017), (2) men score higher on the Dark Tetrad traits than women (Neumann et al., 2022), and (3) that the Dark Tetrad traits may predict different forms of IPV for men and women (Green et al., 2020; Tetreault et al., 2021), we examine not only the overall associations between the Tetrad and IPV but also the associations between the Tetrad and IPV separated by gender. We propose no specific hypotheses for these analyses.

Method

Participants and Procedure

Ethics approval was obtained from the XXXX Human Research Ethics Committee. All participants provided informed consent before participating and were debriefed. Participants were recruited via Cloud Research (<https://www.cloudresearch.com/>; Chandler et al., 2019). An initial 375 potential participants accessed the link. Of these potential participants, 31 did not progress beyond the consent page. A further 13 participants failed the attention

checks throughout the questionnaire, and five responses were removed because they had duplicate IP addresses. Lastly, 11 participants withdrew their consent after the debriefing, which revealed the specific aims of the study. The final sample comprised 315 Australian participants aged between 18 to 82 years ($M_{\text{age}} = 42.39$; $SD = 15.06$). Of participants, 62.2% identified their biological sex as female and 37.8% identified their biological sex as male. We therefore adopt the term sex over gender. Participants predominantly identified as heterosexual (80.6%) and unmarried (60.3%). Most participants were not students (83.7%). Using G*Power, an *a priori* power analysis indicated that with alpha set at .05, power at .95, and a small effect size of .10, a minimum sample size of 236 was required for adequate statistical power. Thus, our sample size was satisfied. Open data is available via OSF.²

Measures

We assessed primary and secondary psychopathy with the 26-item self-report Levenson Self-Report Psychopathy Scale (Levenson et al., 1995), which includes 16 items for primary psychopathy (e.g., “For me, what’s right is whatever I can get away with”; $\alpha = .87^3$) and 10 items for secondary psychopathy (e.g., “I don’t plan anything very far in advance”; $\alpha = .77$). Participants indicated agreement with each item (1 = *Disagree strongly*; 4 = *Agree strongly*), and after reverse scoring responses were summed for total scores with higher scores indicating higher psychopathy.

Grandiose and vulnerable narcissism were assessed with the 28-item self-report Brief Pathological Narcissism Inventory (Schoenleber et al., 2015), which includes 12 items for grandiose narcissism (e.g., “I often fantasize about performing heroic deeds”; $\alpha = .89$) and 16 items for vulnerable narcissism (e.g., “It’s hard to feel good about myself unless I know other people admire”; $\alpha = .94$). Participants reported how like them each item was (0 = *Not like me at all*; 5 = *Very much like me*), and responses were summed for total scores with higher scores indicating higher narcissism.

Machiavellian tactics and views were assessed with the 12-item self-report Two-Dimensional Machiavellianism Scale (Monaghan et al., 2020), which includes six items for tactics (e.g., “I think that it is OK to take advantage of others to achieve an important goal”; $\alpha = .78$) and six items for views (e.g., “In my opinion, human nature is to be dishonest”; $\alpha = .70$). Participants indicated agreement with each item (1 = *Disagree strongly*; 7 = *Agree strongly*), and after

¹ https://osf.io/wk3sn/?view_only=a7df30b5943647078e458fd3dca42918

² https://osf.io/wk3sn/?view_only=a7df30b5943647078e458fd3dca42918

³ All alphas are reported after removal of outliers

Table 1 Exploratory Factor Analysis with a Principal Axis Factoring Extraction on the Gaslighting Questionnaire

| Item | Statement | Loading |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <i>For the following items, please rate how acceptable you find each scenario</i> | | |
| 1 | Person A accuses Person B of lying, even when Person A knows that they are the one who is lying | .92 |
| 2 | Person A tells Person B that they are wrong, even when Person A knows that what Person B is saying is true | .90 |
| 3 | Person A accuses Person B of being paranoid, even if Person A knows that Person B's suspicions are well-founded | .90 |
| 4 | Person A tries to make Person B question their sanity | .89 |
| 5 | Person A says anything to Person B if it means that they will get their way | .89 |
| 6 | Person A lashes out at Person B whenever Person B says something that contradicts Person A's version of events | .89 |
| 7 | Person A never admits to doing anything wrong, even when Person B has proof that Person A did do something wrong | .88 |
| 8 | Person A says Person B has a bad memory if Person B catches Person A telling a lie | .87 |
| 9 | Person A makes Person B question their decision-making abilities, if it means Person A gets to be the one to make decisions in the relationship | .87 |
| 10 | Person A lies to Person B just to see if Person B will believe them | .86 |

Note. The total of these items was correlated with the Intimate Partner Violence Control Scale ($r[315] = .78, p < .001$).

reverse scoring responses were summed for total scores with higher scores indicating higher Machiavellianism.

Sadism was assessed with the Short Sadistic Impulse Scale (O'Meara et al., 2011), which includes 10 self-report items (e.g., "I enjoy seeing people hurt"; $\alpha = .92$). Participants indicated agreement with items (1 = *Strongly disagree*; 5 = *Strongly agree*), and after reverse scoring responses were summed for a total score with a higher score indicating higher sadism.

We assessed controlling relationship tactics with the 16-item self-report Intimate Partner Violence Control Scale (Bledsoe & Sar, 2011). Following the recommendations of previous research to increase generalizability of the measure (see Brewer et al., 2018), item 15 (e.g., "I wish sometimes that I could take the children away from my partner to get her to go along with things"), was removed from the measure. Participants indicated frequency (1 = *Never*; 5 = *Very often*) to the remaining 15 items (e.g., "I wish I had more say over who my partner's friends are"; $\alpha = .97$), and responses were summed for a total score with a higher score indicating a greater desire for control.

We also controlled for socially desirable responding by including the Marlowe-Crowne Short Form C (Reynolds, 1982) which comprises 13 self-report items (e.g., "No matter who I am talking to, I am always a good listener"; $\alpha = .73$). Participants responded true or false to items with socially desirable responses scored as 1 and socially undesirable responses scored as 0. Responses were summed for a total score with a higher score indicating more socially desirable responses.

⁴ Rotation was not applied as only one factor was extracted

To assess acceptance of gaslighting tactics in intimate relationships, we generated an initial set of 18 items to assess gaslighting tactics. Development of these items was guided by previous measures (see Stern, 2007) and a review of the extant literature. We asked participants to indicate how acceptable they found a series of intimate relationship scenarios (1 = *Unacceptable*; 7 = *Acceptable*). An exploratory factor analysis with a principal axis factoring extraction⁴ was performed on the 18 items, with parallel analysis demonstrating the presence of one factor that explained 79.3% of the overall variance (Bartlett's test $\chi^2[153] = 8083, p < .001$; KMO = .98). In the final form of the Gaslighting Questionnaire, we retained the 10 items with the highest factor loadings (Table 1) which accounted for 75.9% of the overall variance (Bartlett's test $\chi^2[45] = 3409, p < .001$; KMO = .97; Cronbach's alpha = .97).

Results

Data were screened and analysis assumptions were considered met (See Supplementary Materials). Table 2 contains the correlations overall and by sex along with descriptive statistics. All Dark Tetrad traits shared significant, positive correlations with acceptance of gaslighting tactics ($p < .05$). Further, an independent measures *t*-test with a Bonferroni correction indicated men found gaslighting tactics more acceptance than women.

As social desirability correlated with gaslighting acceptance and all Dark Tetrad traits, we ran a Hierarchical Multiple Regression with social desirability entered at Step 1 and

Table 2 Total and Sex-Specific Zero-Order Correlations, Descriptive Statistics, and t-tests

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <i>Total correlations</i> | | | | | | | | | |
| 1. Social Desirability | - | | | | | | | | |
| 2. Grandiose narcissism | -.48 | - | | | | | | | |
| 3. Vulnerable narcissism | -.53 | .79 | - | | | | | | |
| 4. Machiavellian tactics | -.37 | .39 | .39 | - | | | | | |
| 5. Machiavellian views | -.33 | .24 | .30 | .35 | - | | | | |
| 6. Primary psychopathy | -.28 | .48 | .48 | .68 | .34 | - | | | |
| 7. Secondary psychopathy | -.38 | .55 | .61 | .31 | .28 | .43 | - | | |
| 8. Sadism | -.36 | .43 | .47 | .54 | .30 | .65 | .52 | - | |
| 9. Gaslighting tactics | -.20 | .40 | .38 | .54 | .22 | .67 | .44 | .73 | - |
| <i>Correlations by sex</i> | | | | | | | | | |
| 1. Social Desirability | - | -.50 _a | -.49 _a | -.29 _a | -.34 _a | -.23 _a | -.32 _a | -.31 _a | -.11 _b |
| 2. Grandiose narcissism | -.45 _a | - | .79 _a | .32 _b | .20 _a | .50 _a | .54 _a | .40 _a | .38 _a |
| 3. Vulnerable narcissism | -.61 _a | .80 _a | - | .27 _b | .25 _a | .43 _b | .53 _b | .39 _b | .33 _b |
| 4. Machiavellian tactics | -.53 _a | .50 _a | .59 _a | - | .30 _a | .65 _a | .25 _a | .52 _a | .49 _a |
| 5. Machiavellian views | -.31 _a | .30 _a | .36 _a | .43 _a | - | .31 _a | .29 _a | .22 _b | .18 _b |
| 6. Primary psychopathy | -.48 _a | .48 _a | .63 _a | .74 _a | .42 _a | - | .42 _a | .64 _a | .66 _a |
| 7. Secondary psychopathy | -.46 _a | .59 _a | .73 _a | .41 _a | .27 _a | .52 _a | - | .48 _a | .46 _a |
| 8. Sadism | -.48 _a | .49 _a | .62 _a | .57 _a | .40 _a | .68 _a | .60 _a | - | .69 _a |

Table 2 (continued)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------------------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------------|
| 9. Gaslighting tactics | -.43 _b | .46 _a | .51 _a | .60 _a | .29 _a | .66 _a | .48 _a | .77 _a | - |
| Total <i>M</i> (<i>SD</i>) | 7.27 (3.04) | 25.35 (12.09) | 30.52 (17.58) | 17.00 (6.72) | 21.21 (6.07) | 31.93 (8.26) | 23.07 (5.07) | 16.80 (8.23) | 16.61 (9.57) |
| Men <i>M</i> (<i>SD</i>) | 7.91 (3.04) | 25.22 (11.63) | 28.63 (17.31) | 17.52 (7.08) | 20.95 (6.57) | 33.89 (7.88) | 22.54 (5.04) | 17.58 (8.94) | 18.90 (10.21) |
| Women <i>M</i> (<i>SD</i>) | 6.88 (2.97) | 25.43 (12.39) | 31.65 (17.69) | 16.69 (6.49) | 21.37 (5.76) | 30.75 (8.28) | 23.38 (5.08) | 16.34 (7.77) | 15.24 (8.91) |
| <i>t</i> -value | 2.94** | -0.15 | -1.47 | 1.06 | -0.58 | -3.29** | -1.42 | 1.25 | 3.20** |
| Hedge's <i>g</i> | .34 | -0.02 | -0.17 | 0.12 | -0.07 | 0.39 | -0.17 | 0.15 | 0.39 |

Note. All correlation coefficients were significant ($p < .05$); Correlation between social desirability and gaslighting for women was *ns*; Correlation coefficients below the diagonal are for men, correlation coefficients above the diagonal are for women; different subscripts indicate correlations between men and women differ at Fisher's z , $p < .05$; t -tests corrected for multiple comparisons (Bonferroni correction); Multicollinearity was not present as no correlations between predictors $> .80$; ** $p < .01$

a, b different subscripts indicate correlations between men and women differ at Fisher's z , $p < .05$

the Dark Tetrad traits entered at Step 2. At Step 1, social desirability explained a significant 4.0% of variance in gaslighting acceptance, $R^2 = .40$, $F(1, 308) = 12.98$, $p < .001$. At Step 2, the Dark Tetrad traits explained an additional 57.2% of variance in gaslighting acceptance, $\Delta R^2 = .57$, $\Delta F(7, 301) = 63.38$, $p < .001$. The total model explained 61.2% of variance in gaslighting acceptance, $R^2 = .61$, $F(8, 309) = 36.47$, $p < .001$. After accounting for shared variance, high Machiavellian tactics, high primary psychopathy, and high sadism were predictive of gaslighting tactics. Coefficients can be seen in Table 3.

As correlations by sex indicated potential moderation – for example, vulnerable narcissism shared stronger correlations with acceptance of gaslighting tactics for men than women – we explored the simple slopes by conducting a series of moderation analyses via the PROCESS macro version 3.5 (Hayes, 2022) with sex as the moderator, each trait as the predictor, and gaslighting tactics as the criterion. An interaction was observed between sex and vulnerable narcissism ($p = .023$), which is depicted in Fig. 1. There was no difference between men and women at low vulnerable narcissism (Effect = -2.07 , $SE = 1.41$, $p = .141$) but a difference was found at average (Effect = -4.41 , $SE = 1.01$, $p < .001$) and high (Effect = -6.75 , $SE = 1.47$, $p < .001$) levels.

Discussion

The aim of this study was to explore the relations the Dark Tetrad traits of primary psychopathy, secondary psychopathy, grandiose narcissism, vulnerable narcissism, Machiavellian tactics, Machiavellian views, and sadism, and acceptance of gaslighting tactics in intimate relationships. To address this aim, and the bias associated with direct assessment of the perpetration of abuse in intimate relationships (see Ferrer-Perez et al., 2020), we developed and provided initial validation of the Gaslighting Questionnaire. The measure showed acceptable internal consistency and strong convergent validity with a measure of IPV control.

We found positive correlations between all Dark Tetrad facets and acceptance of gaslighting tactics. These findings support a wide berth of previous research (e.g., Carton & Egan, 2017; Kiire, 2017) that has linked these traits to a variety of aggressive and abusive behaviours in intimate relationships. When controlling for shared variance in the regression, only primary psychopathy, Machiavellian tactics, and sadism predicted gaslighting tactics, with sadism emerging as a particularly strong predictor. These findings are in line with previous research correlating primary psychopathy with psychological aggression and control (Iyican & Babcock, 2018; Plouffe et al., 2020), Machiavellianism with emotional abuse (Carton & Egan, 2017), and sadism with relationship control (Hughes & Samuels, 2021).

Table 3 Beta Coefficients of Coefficients Table for Social Desirability and the Dark Tetrad Traits Predicting Acceptance of Gaslighting Tactics

| | <i>B</i> [95% <i>CI</i>] | <i>SE B</i> | β | <i>t</i> |
|--------------------------|---------------------------|-------------|---------|----------|
| <i>Step 1</i> | | | | |
| Social Desirability | -0.63 [-0.98, -0.29] | 0.18 | -.20 | -3.60*** |
| <i>Step 2</i> | | | | |
| Social Desirability | 0.36 [0.08, 0.64] | 0.14 | .11 | 2.52* |
| Grandiose Narcissism | 0.06 [-0.03, 0.16] | 0.05 | .08 | 1.33 |
| Vulnerable Narcissism | -0.04 [-0.11, 0.03] | 0.04 | -.07 | -1.07 |
| Machiavellianism Tactics | 0.17 [0.02, 0.31] | 0.07 | .12 | 2.23* |
| Machiavellianism Views | -0.07 [-0.20, 0.05] | 0.06 | -.05 | -1.14 |
| Primary Psychopathy | 0.31 [0.18, 0.44] | 0.07 | .27 | 4.63*** |
| Secondary Psychopathy | 0.16 [-0.03, 0.34] | 0.09 | .08 | 1.68 |
| Sadism | 0.58 [0.46, 0.70] | 0.06 | .50 | 9.66*** |

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

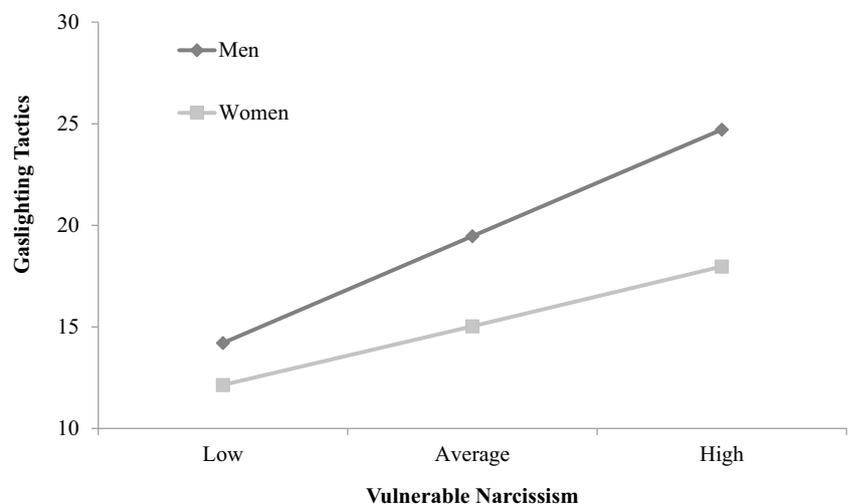
Although these findings align with previous research, it is important to note that gaslighting remains its own unique form of abuse. The goal of gaslighting is to destabilize a target through constant misdirection, denial, lying, and contradiction (Bhatti et al., 2021; Sodoma, 2022; Sweet 2019). The covert nature of gaslighting (Stern, 2007) renders this form of abuse particularly insidious, leading the target to doubt their own perceptions of reality (Sweet, 2019). Still, given the extreme interpersonal manipulation employed in gaslighting, it is logical that primary psychopathy, Machiavellian tactics, and sadism would predict more acceptance of gaslighting tactics.

Compared to secondary psychopathy, characterized by high emotionality, impulsivity, and sensation seeking (Newman et al., 2005), greater acceptance of gaslighting tactics is best associated with primary psychopathy, characterized by emotional detachment (Levenson et al., 1995), callousness (Cooke & Michie, 1997), dominance (March & Springer, 2019), cold affect, and the manipulation of others (Vailancourt & Sunderani, 2011). Further, while Machiavellian

views are characterized by pessimistic beliefs that others are gullible and can easily be manipulated (Monaghan et al., 2020), Machiavellian tactics includes actively manipulating others, and justifying this interpersonal exploitation, for personal gain and goals (Monaghan et al., 2018). Thus, according to our findings, it is not necessarily the *view* that others are able to be manipulated that leads an individual to find gaslighting tactics more acceptable, but rather the willingness and ability to manipulate others. Lastly, the association between sadism and gaslighting tactics is not particularly surprising – the psychological harm inflicted by gaslighting (Dimitrova, 2021) likely appeals to the sadist's propensity to derive pleasure from harming others (Buckels et al., 2019). In sum, our findings indicate that gaslighting is likely a deliberate and manipulative tactic of relationship control – not necessarily the result of distorted perceptions or the need for emotional validation.

For both men and women, as vulnerable narcissism increased so did their acceptance of gaslighting tactics. Compared to women, men with higher vulnerable narcissism were particularly

Fig. 1 Interaction of participant's sex and vulnerable narcissism on the acceptance of gaslighting tactics. Low (12.94), average (30.52), and high (48.10) vulnerable narcissism values represent $-1SD$, M , and $+1SD$



likely to find gaslighting tactics acceptable, a finding in line with previous research where men's vulnerable narcissism has been related to both perpetration of physical/sexual abuse and psychological abuse (Green et al., 2020)⁵. As the current study is the first to explore vulnerable narcissism in relation to gaslighting, our interpretation is somewhat speculative; however, as those with higher vulnerable narcissism are hypersensitive to rejection (Besser & Priel, 2010; Grieve & March, 2021), experience inadequacy (March et al., 2021), and appraise negative social feedback as devaluing of the self (Hart et al., 2017), it is possible that they consider gaslighting tactics (e.g., manipulation, deflection of blame) acceptable, as these tactics could avoid ego-threats and shame associated with negative feedback from an intimate partner. We recommend future research seek to explore the role of "humiliated fury" (i.e., shame that leads to anger; see Kaplenko et al., 2018) in the relationship between more vulnerable forms of narcissism and gaslighting.

Although not a specific hypothesis, it is also worthwhile noting that men were more accepting of gaslighting tactics than women, a finding that aligns with speculation that men are more often the perpetrators of gaslighting and women more often the victims/survivors (e.g., Morgan, 2007). That said, the "gender paradigm" of IPV, where men are predominantly positioned as the perpetrators and women as the victims/survivors, is by no means established (see Dutton, 2012). Some research has demonstrated little to no sex differences in perpetration of different forms of IPV (Kiire, 2017), whereas other research has demonstrated differential patterns across the forms; for example, women perpetrate more emotional abuse, whereas men perpetrate more psychological forms of intimidation and threats (Harned, 2001). There is also evidence that the type of emotional abuse perpetrated by men and women differ – men appear to be more motivated by control (Hamberger, 2005) and use tactics that threaten and inhibit partner autonomy, whereas women employ shouting/yelling as tactics (Hamberger & Larsen, 2015). We suggest our findings further substantiate the potential for men and women to engage in different forms of relational abuse, and we recommend future research avoid adopting the gender paradigm of IPV and seek to further explore (1) sex differences in abusive tactics, and (2) why differential tactics are adopted by men and women.

Limitations, Future Directions, Conclusions

A potential limitation of the present study was that we assessed participants' acceptance of gaslighting rather than their reported perpetration of gaslighting. We did this to

avoid the possibility that participants would underreport their tendency to engage in a behaviour that is widely considered to be undesirable. Still, we encourage researchers to build on these findings by examining the association between the Dark Tetrad and one's actual tendency to engage in gaslighting behaviours. Further, although we found support for the Gaslighting Questionnaire's internal consistency and convergent validity, additional work should be undertaken to further establish its psychometric bona fides via more rigorous psychometric testing.

Although research, particularly psychological research, on gaslighting remains in its infancy, gaslighting has been conceptualised to comprise different forms, such as glamour gaslighting and intimidator gaslighting (see Fuchsman, 2019; Stern, 2018). Our conceptualization of gaslighting most closely aligns with intimidator gaslighting, where the gaslighter exercises control through criticism and disapproval (Miano et al., 2021). Future research should endeavour to explore these other forms of gaslighting, as well as their differential predictors.

Another potential limitation is that we used only single measures to assess the Dark Tetrad traits, and it is possible that some of the present results are because of the idiosyncrasies of the specific measures used. Future work could use multiple measures of the Dark Tetrad traits in concert with latent variable techniques to avoid this issue. Similarly, other constructs beyond the Dark Tetrad traits may bear of utility here, such as borderline personality traits (see Miller et al., 2010).

Lastly, we recommend future researchers consider exploring gaslighting as a potential social manipulation tactic (see Jonason & Webster, 2012). In the current study, we explored gaslighting in intimate relationships; however, gaslighting can occur in a broad range of social relationships. Future researchers might consider exploring gaslighting as a manipulation tactic occurring across a broad range of interpersonal relationships (e.g., organizational and friendships).

This was the first study to conduct a comprehensive exploration of the Dark Tetrad traits and acceptance of gaslighting tactics. All Dark Tetrad traits were associated with more acceptance of gaslighting tactics, with primary psychopathy, Machiavellian tactics, and sadism emerging as significant predictors. Men found gaslighting tactics more acceptable than women, though this was largely driven by primary psychopathy. Further, although acceptance of gaslighting tactics increased with higher vulnerable narcissism for both men and women, men with higher vulnerable narcissism demonstrated the greatest acceptance of gaslighting tactics. These novel findings provide future researchers with a wealth of opportunity to replicate and expand the exploration of the understudied phenomena of gaslighting.

⁵ Interestingly, when controlling for shared variance between the two forms of narcissism, Green et al. (2020) found only grandiose narcissism to predict perpetration of emotional abuse. To ensure the robustness of our findings, we reran our moderation analysis controlling for grandiose narcissism as a covariate and the results remained stable.

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Declarations

Conflict of Interest Statement The authors declare that they have no conflict of interest.

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References

- Abell, L., & Brewer, G. (2014). Machiavellianism, self-monitoring, self-promotion and relational aggression on Facebook. *Computers in Human Behavior, 36*, 258–262.
- Anderson, D. K., Saunders, D. G., Yoshihama, M., Bybee, D., & Sullivan, C. M. (2003). Long-term trends in depression among women separated from abusive partners. *Violence Against Women, 9*, 807–838.
- Arabi, S. (2023). Narcissistic and psychopathic traits in romantic partners predict post-traumatic stress disorder symptomology: Evidence for unique impact in a large sample. *Personality and Individual Differences, 201*, 111942.
- Besser, A., & Priel, B. (2010). Grandiose narcissism versus vulnerable narcissism in threatening situations: Emotional reactions to achievement failure and interpersonal rejection. *Journal of Social and Clinical Psychology, 29*, 874–902.
- Bhatti, M. M., Shuja, K. H., Aqeel, M., Bokhari, Z., Gulzar, S. N., Fatima, T., & Sama, M. (2021). Psychometric development and validation of victim gaslighting questionnaire (VGQ): across female sample from Pakistan. *International Journal of Human Rights in Healthcare*. <https://doi.org/10.1108/IJHRH-12-2020-0119>
- Bledsoe, L. K., & Sar, B. K. (2011). Intimate partner violence control scale: Development and initial testing. *Journal of Family Violence, 26*, 171–184.
- Brewer, G., Bennett, C., Davidson, L., Ireen, A., Phipps, A. J., Stewart-Wilkes, D., & Wilson, B. (2018). Dark triad traits and romantic relationship attachment, accommodation, and control. *Personality and Individual Differences, 120*, 202–208.
- Buckels, E. E., Jones, D. N., & Paulhus, D. L. (2013). Behavioral confirmation of everyday sadism. *Psychological Science, 24*, 2201–2209.
- Buckels, E. E., Trapnell, P. D., Andjelovic, T., & Paulhus, D. L. (2019). Internet trolling and everyday sadism: Parallel effects on pain perception and moral judgment. *Journal of Personality, 87*, 328–340.
- Carton, H., & Egan, V. (2017). The dark triad and intimate partner violence. *Personality and Individual Differences, 105*, 84–88.
- Chabrol, H., Van Leeuwen, N., Rodgers, R., & Séjourné, N. (2009). Contributions of psychopathic, narcissistic, Machiavellian, and sadistic personality traits to juvenile delinquency. *Personality and Individual Differences, 47*, 734–739.
- Chabrol, H., Bouvet, R., & Goutaudier, N. (2017). The Dark Tetrad and antisocial behavior in a community sample of college students. *Journal of Forensic Psychology Research and Practice, 17*, 295–304.
- Chandler, J., Rosenzweig, C., Moss, A. J., Robinson, J., & Litman, L. (2019). Online panels in social science research: Expanding sampling methods beyond Mechanical Turk. *Behavior Research Methods, 51*(5), 2022–2038.
- Chan, K. L. (2011). Gender differences in self-reports of intimate partner violence: A review. *Aggression and Violent Behavior, 16*(2), 167–175.
- Cooke, D. J., & Michie, C. (1997). An item response theory analysis of the Hare Psychopathy Checklist-Revised. *Psychological Assessment, 9*(1), 3–14.
- Dimitrova, D. (2021). The women in situation of gaslighting – risk identification in the work environment. *European Journal of Public Health, 31*(Supplement_3). <https://doi.org/10.1093/eurpub/ckab165.327>.
- Dutton, D. G. (2012). The case against the role of gender in intimate partner violence. *Aggression and Violent Behavior, 17*(1), 99–104.
- Ferrer-Perez, V. A., Bosch-Fiol, E., Ferreiro-Basurto, V., Delgado-Alvarez, C., & Sánchez-Prada, A. (2020). Comparing implicit and explicit attitudes toward intimate partner violence against women. *Frontiers in Psychology, 11*, 2147.
- Fuchsman, K. (2019). Gaslighting. *The Journal of Psychohistory, 47*, 74–78.
- Green, A., MacLean, R., & Charles, K. (2020). Unmasking gender differences in narcissism within intimate partner violence. *Personality and Individual Differences, 167*, 110247.
- Grieve, R., & March, E. (2021). ‘Just checking’: Vulnerable and grandiose narcissism subtypes as predictors of phubbing. *Mobile Media & Communication, 9*(2), 195–209.
- Hamberger, L. K. (2005). Men’s and women’s use of intimate partner violence in clinical samples: Toward a gender-sensitive analysis. *Violence and Victims, 20*, 131–151.
- Hamberger, L. K., & Larsen, S. E. (2015). Men’s and women’s experience of intimate partner violence: A review of ten years of comparative studies in clinical samples; Part I. *Journal of Family Violence, 30*, 699–717.
- Harned, M. S. (2001). Abused women or abused men?: An examination of the context and outcomes of dating violence. *Violence and Victims, 16*, 269–285.
- Hart, W., Adams, J. M., & Tortoriello, G. (2017). Narcissistic responses to provocation: An examination of the rage and threatened-egotism accounts. *Personality and Individual Differences, 106*, 152–156.
- Hughes, S., & Samuels, H. (2021). Dark desires: The Dark Tetrad and relationship control. *Personality and Individual Differences, 171*, 110548.
- Iyican, S., & Babcock, J. C. (2018). The relation between the two factors of psychopathy and intimate partner aggression. *Journal of Aggression, Maltreatment, & Trauma, 27*, 119–130.
- Jain, N., Kowalski, C. M., Johnson, L. K., & Saklofske, D. H. (2022). Dark thoughts, dark deeds: An exploration of the relationship between the Dark Tetrad and aggression. *Current Psychology, 1–16*.
- Jewkes, R. (2002). Intimate partner violence: causes and prevention. *The Lancet, 359*, 1423–1429.
- Jonason, P. K., Luevano, V. X., & Adams, H. M. (2012). How the Dark Triad traits predict relationship choices. *Personality and Individual Differences, 53*(3), 180–184.

- Jonason, P. K., & Webster, G. D. (2012). A protean approach to social influence: Dark Triad personalities and social influence tactics. *Personality and Individual Differences, 52*, 521–526.
- Kaplenko, H., Loveland, J. E., & Raghavan, C. (2018). Relationships between shame, restrictiveness, authoritativeness, and coercive control in men mandated to a domestic violence offenders program. *Violence and Victims, 33*, 296–309.
- Kiire, S. (2017). Psychopathy rather than Machiavellianism or narcissism facilitates intimate partner violence via fast life strategy. *Personality and Individual Differences, 104*, 401–406.
- Koladich, S. J., & Atkinson, B. E. (2016). The dark triad and relationship preferences: A replication and extension. *Personality and Individual Differences, 94*, 253–255.
- Levenson, M. R., Kiehl, K. A., & Fitzpatrick, C. M. (1995). Assessing psychopathic attributes in a noninstitutionalized population. *Journal of Personality and Social Psychology, 68*(1), 151–158.
- Logan, T. K., Lynch, K., & Walker, R. (2022). Exploring control, threats, violence and help-seeking among women held at gunpoint by abusive partners. *Journal of Family Violence, 37*(1), 59–73.
- March, E., & Springer, J. (2019). Belief in conspiracy theories: The predictive role of schizotypy, Machiavellianism, and primary psychopathy. *PloS one, 14*(12), e0225964.
- March, E., Grieve, R., Clancy, E., Klettke, B., van Dick, R., & Hernandez Bark, A. S. (2021). The role of individual differences in cyber dating abuse perpetration. *Cyberpsychology, Behavior, and Social Networking, 24*(7), 457–463.
- Miano, P., Bellomare, M., & Genova, V. G. (2021). Personality correlates of gaslighting behaviours in young adults. *Journal of Sexual Aggression, 27*(3), 285–298.
- Miller, J. D., Dir, A., Gentile, B., Wilson, L., Pryor, L. R., & Campbell, W. K. (2010). Searching for a vulnerable dark triad: Comparing factor 2 psychopathy, vulnerable narcissism, and borderline personality disorder. *Journal of Personality, 78*, 1529–1564.
- Monaghan, C., Bizumic, B., Williams, T., & Sellbom, M. (2020). Two-dimensional Machiavellianism: Conceptualization, theory, and measurement of the views and tactics dimensions. *Psychological Assessment, 32*(3), 277–293.
- Monaghan, C., Bizumic, B., & Sellbom, M. (2018). Nomological network of two-dimensional Machiavellianism. *Personality and Individual Differences, 130*, 161–173.
- Morgan, R. (2007). *The gaslight effect*. Random House.
- Neumann, C. S., Jones, D. N., & Paulhus, D. L. (2022). Examining the Short Dark Tetrad (SD4) across models, correlates, and gender. *Assessment, 29*(4), 651–667.
- Newman, J. P., MacCoon, D. G., Vaughn, L. J., & Sadeh, N. (2005). Validating a distinction between primary and secondary psychopathy with measures of Gray's BIS and BAS constructs. *Journal of Abnormal Psychology, 114*, 319–323.
- O'Meara, A., Davies, J., & Hammond, S. (2011). The psychometric properties and utility of the Short Sadistic Impulse Scale (SSIS). *Psychological Assessment, 23*(2), 523–531.
- Paulhus, D. L. (2014). Toward a Taxonomy of Dark Personalities. *Current Directions in Psychological Science, 23*, 421–426.
- Paulhus, D. L., & Dutton, D. G. (2016). Everyday sadism. In V. Zeigler-Hill & D. K. Marcus (Eds.), *The Dark Side of Personality: Science and Practice in Social, Personality, and Clinical Psychology* (pp. 109–120). American Psychological Association.
- Pence, E., & Paymar, M. (1993). *Education groups for men who batter*. Springer.
- Plouffe, R. A., Wilson, C. A., & Saklofske, D. H. (2020). The role of dark personality traits in intimate partner violence: A multi-study investigation. *Current Psychology, 1*–20.
- Plouffe, R. A., Wilson, C. A., & Saklofske, D. H. (2022). Examining the relationships between childhood exposure to intimate partner violence, the Dark Tetrad of personality, and violence perpetration in adulthood. *Journal of Interpersonal Violence, 37*, 5–6, NP3449–NP3473.
- Ponti, L., Ghinassi, S., & Tani, F. (2020). The role of vulnerable and grandiose narcissism in psychological perpetrated abuse within couple relationships: The mediating role of romantic jealousy. *The Journal of Psychology, 154*, 144–158.
- Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe–Crowne Social Desirability Scale. *Journal of Clinical Psychology, 38*, 119–125.
- Sardinha, L., Maheu-Giroux, M., Stöckl, H., Meyer, S. R., & García-Moreno, C. (2022). Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018. *The Lancet, 399*, 803–813.
- Schoenleber, M., Roche, M. J., Wetzel, E., Pincus, A. L., & Roberts, B. W. (2015). Development of a brief version of the Pathological Narcissism Inventory. *Psychological Assessment, 27*(4), 1520–1526.
- Sodoma, K. A. (2022). Emotional gaslighting and affective empathy. *International Journal of Philosophical Studies, 1*–19.
- Stark, C. A. (2019). Gaslighting, misogyny, and psychological oppression. *The Monist, 102*, 221–235.
- Stern R. (2007). *The gaslight effect: How to spot and survive the hidden manipulations other people use to control your life* (2nd ed.). New York, NY: Harmony.
- Stern, R. (2018). *The gaslight effect: How to spot and survive the hidden manipulation others use to control your life*. Harmony.
- Sweet, P. L. (2019). The sociology of gaslighting. *American Sociological Review, 84*(5), 851–875.
- Tetreault, C., Bates, E. A., & Bolam, L. T. (2021). How dark personalities perpetrate partner and general aggression in Sweden and the United Kingdom. *Journal of Interpersonal Violence, 36*, NP4743–NP4767.
- Vaillancourt, T., & Sunderani, S. (2011). Psychopathy and indirect aggression: The roles of cortisol, sex, and type of psychopathy. *Brain and Cognition, 77*, 170–175.
- Viding, E., & McCrory, E. J. (2018). Understanding the development of psychopathy: progress and challenges. *Psychological Medicine, 48*, 566–577.
- World Health Organisation (2012). *Intimate Partner Violence*. Retrieved from <https://apps.who.int/iris/bitstream/handle/10665/77432/?sequence=1>

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