'You Made Me Do This' – Exploring How Attachment Styles and Emotional Intelligence Are Associated with Gaslighting Acceptance

Thachita Harfst (s2669234)

Faculty of Behavioral, Management and Social Sciences, University of Twente

202000384: Bachelor Thesis – Positive Clinical Psychology and Technology

First Supervisor: Peter ten Klooster

Second Supervisor: Jannis Kraiss

30th June 2024

Abstract

Gaslighting nowadays has become a popular term in society, despite its ambiguous definition and the lack of research on the phenomenon. Gaslighting is a type of psychological and emotional abuse. Previous studies mainly consist of reviews of literature or focuses on the impacts of gaslighting. The purpose of this study was to explore the association between attachment style and gaslighting acceptance and whether emotional intelligence may act as a moderator in this relationship. Participants (n = 99; 55.65% psychology students; 58.58% women) were recruited via social media and SONA and completed an online questionnaire assessing attachment style, emotional intelligence and gaslighting acceptance. The findings indicated no significant correlation between attachment style and gaslighting acceptance (r (97) = -.05, p = .65), nor did they suggest emotional intelligence to have a moderating effect on this relationship (B = -.19, p = .13). However, a strong correlation between attachment style and emotional intelligence was found (r(97) = -.60, p < .001). This significant relationship may hold valuable implications for future research to establish interventions for individuals with attachment issues. Lastly, it is important to continue research on this topic in order to close the research gap and investigate what factors lead to more gaslighting acceptance.

Introduction

'Situationship', 'Instagrammable' and 'Gaslighting' are just a few of the many neologisms that we are confronted with daily, especially on social media like on Instagram, TikTok, or Twitter. Not only is it challenging to keep up with their meanings, but they also often seem misused or overgeneralized, such as with 'gaslighting'. Although the phenomenon of gaslighting was already introduced in the 1940s, the term has only recently gained popularity. According to the Merriam-Webster dictionary, 'gaslighting' received the status Word of the Year 2022 due to the increase in lookups of 1740% (Klein et al., 2023).

As the phenomenon of gaslighting is relatively new and under-researched, there is not one clear definition. It is considered to be a type of psychological and emotional abuse, involving an abuser and a victim whereby the abuser intends to make the victim feel as they are "crazy" through constructing a "surreal" interpersonal environment (Sweet, 2019). It is often characterized by a period of 'love-bombing' at the early stages of gaslighting behavior, thus being overly affectionate, showing attention and giving gifts (Sarkis, 2018, as cited in Klein et al., 2023). In colloquial use, gaslighting is frequently used interchangeably with bullying. However, it is crucial to recognize certain distinctions. Unlike bullies, gaslighters conceal their harmful intentions and may simultaneously present a charming façade since they are convincing liars (Kurniawan & Limanta, 2021). In other forms of intimate partner abuse, there may also be overt behaviors. Therefore, covertness is one of the factors that distinguishes gaslighting from other types of abuse.

Another factor that makes gaslighting distinct is that the perpetrator not only strives to take control of their victim, but they also require a certain obedience and cooperation of the victim (Kurniawan & Limanta, 2021). Thus, the abuser denies the victim's credibility, leading to the destabilization of the victim. There are many tactics gaslighters can use, of which the three most common are *hiding information* from the victim, *changing* something about the victim to achieve them to play the desired role in the abuser's fantasy and, finally, *control* (Petric, 2018). The *warm-cold behavior* is another method by which a gaslighter achieves their goals, characterized by a short period of positive reinforcement, followed by a longer period of distant and hurtful behavior in order to keep the victim hooked (Petric, 2018).

These tactics gaslighters use can have devastating consequences for their victims. Not surprisingly, gaslighting was officially incorporated into the criminal domestic violence legislation in the UK in 2015 (Sweet, 2019). According to Sweet (2019) gaslighting victimization mainly affects women, racial minorities, and LGBTQ individuals. The signs of experiencing gaslighting include depression, loss of self-esteem, and feelings of being 'crazy'

(Klein et al., 2023). Not only is gaslighting thought to be widespread, but also extremely harmful. Thus, it is crucial to create a better support system for its victims.

Despite increased understanding of the characteristics and consequences of gaslighting, the origins of this behavior and its associations with other traits are still not clear due to the scarcity of research. Particularly the difficulty of measuring gaslighting as a self-report behavior poses an obstacle in studying antecedents of gaslighting since answers given by individuals who tend to be gaslighters are likely to be biased in self-report measures. Therefore, a recent study by March et al. (2023) explored the relationship between the Dark Tetrad traits (Narcissism, Machiavellianism, Psychopathy, and Sadism) and gaslighting *acceptance*, aiming to circumvent this bias and simultaneously controlling for the tendency of giving socially desirable answers. They found that all traits of the dark tetrad were positively linked to the acceptance of gaslighting. Another study also proposed that individuals exhibiting elevated levels of these traits tend to manifest a greater desire for control within intimate relationships (Hughes & Samuels, 2021). These findings suggest that the dark tetrad traits may be linked to indirect measures of gaslighting.

Considering that gaslighting is fundamentally a social phenomenon, attachment theory may also be of relevance as a potential antecedent of gaslighting acceptance since it influences how individuals perceive, interpret, and respond to relational dynamics within intimate relationships. Bowlby (1982) defined attachment as an emotional bond. Throughout social development, individuals are thought to create internal affective models, both for themselves and for typical interaction patterns with important others. These mental models are believed to structure personality development and influence subsequent social behaviors (Simpson, 1990). Four major different attachment styles have been distinguished, namely secure, avoidant, anxious, and disorganized (which was later added), stemming from parent-child relationships as proposed by Bowlby (1982). Furthermore, Shaver and Hazan (1987) emphasized that, besides the impact of the child-parent relationship on romantic relationships, the romantic relationship itself can be seen as a process of attachment very similar to that in childhood.

Further evidence supports the notion that attachment styles do correlate to some crucial factors within romantic relationships. These include trust, satisfaction, and quality of communication (Collins & Read, 1990). Whereas women who tend to be anxious experience overall lower relationship satisfaction, men experience greater relationship satisfaction when they are comfortable with closeness and intimacy (Collins & Read, 1990). Particularly an insecure attachment has been associated with the adoption of negative communication

patterns when managing conflicts in romantic relationships (Fowler & Dillow, 2011, as cited in Bonache et al., 2019). Additionally, Bonache et al. (2019) introduces an extensive body of research, highlighting insecure attachment style as a risk factor for engaging in abusive behavior toward an intimate partner among both men and women. Consequently, especially having an insecure attachment could pose a contributing factor for gaslighting acceptance.

For interpersonal relationships, especially social skills are important. These social skills are more pronounced in individuals with a more secure attachment. This, in turn, leads those individuals to establish more positive and effective relationships and show empathy (Hamarta et al., 2009). Additionally, the study by Hamarta et al. (2009) suggests that securely attached individuals also are more emotionally intelligent than individuals with other attachment styles. Emotional intelligence (EI) has been conceptualized as comprising five dimensions, namely self-awareness, self-management, social awareness, empathy, and social skills (Boyatzis et al., 2000, as cited in Hamarta et al., 2009). These skills are used to obtain positive results at work, in education or in daily life by regulating behavior through emotions.

EI can either be measured as a trait or as a mental ability. Trait EI pertains to an individual's proclivity for regulating their emotions and is commonly assessed through self-report instruments (García-Sancho et al., 2014). Ability EI, on the other hand, is construed as a cluster of skills fostering the adept use of emotions within cognitive processes, typically evaluated through performance tests. In a systematic review García-Sancho et al. (2014) found, independently of the type of EI measured, that people with high EI displayed aggressive behaviors less often than people with low EI, across different ages and countries. Thus, having lower levels of EI could potentially be a risk factor in engaging in gaslighting behavior or its acceptance due to the higher inclination of engaging in aggressive behavior.

Moreover, emotional intelligence does not only influence the prevalence of aggressive behaviors, but also exhibits significant correlations with attachment styles and relationship dynamics. This was shown in a study by Kafetsios (2004, as cited in Brackett et al., 2011), in which the scores of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) correlated significantly with a secure attachment style, reflecting emotional closeness to others as well as being comfortable with mutual dependence. Additionally, in a study involving dating and married couples it was found that elevated MSCEIT scores coincided with more satisfaction and happiness within the relationship (Brackett, 2006 as cited in Brackett et al., 2011). Conversely, lower MSCEIT scores were associated with heightened conflicts and maladaptive relationship behaviors. This suggests that lower emotional

intelligence, particularly when combined with an insecure attachment style, may play a role in fostering detrimental behaviors like gaslighting within relationships.

While reduced levels of emotional intelligence may contribute to increased gaslighting acceptance, higher levels of emotional intelligence may have the same effect. Interestingly, the dark triad traits (Narcissism, Psychopathy, and Machiavellianism) display a commonality. Nagler et al. (2014) claim that not only are the traits associated with emotional manipulation, but that emotional manipulation is also related to socio-emotional control. This is in accordance with Austin et al. (2007) who introduced the term "emotional manipulation", indicating the deliberate use of emotional abilities to attain specific goals. Therefore, being able to manage one's own and others' emotions, and thus having higher levels of emotional intelligence, could potentially also be a contributing factor for gaslighting acceptance since the perpetrator displays manipulation tactics to confuse the victim. Therefore, the occurrence of gaslighting acceptance in theory may be amplified not only by low levels of emotional intelligence but also by high levels of emotional intelligence.

EI may therefore have a moderating effect on the relationship between attachment style and gaslighting acceptance. This is based on the notion that individuals with more insecure attachment styles may exhibit higher levels of gaslighting acceptance and this relationship may vary depending on the level of EI: higher or lower EI scores, respectively, could amplify the association between attachment styles and gaslighting acceptance. To date, however, no empirical studies have examined the relationship between insecure attachment and gaslighting accepting, nor the potential moderating role of emotional intelligence.

Current Study

This study will explore the relationship between attachment styles and the acceptance of gaslighting tactics. As emotional intelligence seems related to interpersonal skills and establishing positive relationships but also to emotional manipulation, it could play a moderating role by strengthening or weakening this relationship. From the body of research above, the following research questions are posed:

- (a) To what extent is insecure attachment associated with the acceptance of gaslighting behaviors in romantic relationships?
- (b) How does emotional intelligence moderate the relationship between insecure attachment and gaslighting acceptance?

Methods

Design

The present study adopted a cross-sectional approach via an online survey carried out between April and May 2024. Prior to the implementation of the study, ethical approval was obtained by the Ethics committee at the University of Twente. After getting approval (249367), the study was added to the online platform SONA through which participants were recruited. Additionally, the convenience sample of participants was also recruited through social media platforms. Only participants above the age of 18 and with a proficient level of English were included in the study. Based on an a-priori power analysis, the aim was to include at least 84 participants, as this number would allow a moderate correlation of r = .3 to be established as statistically significant at p = .05 with 80% power.

Material and Instruments

The survey was administered in English and consisted of eight distinct blocks, each measuring different constructs using previously validated questionnaires. The blocks respectively measured the following constructs: Emotional intelligence, Attachment Styles, Gaslighting Acceptance, Self-esteem, Desirability of Control, Empathy, Narcissism, and Alexithymia. For this study in particular gaslighting acceptance, attachment styles, and emotional intelligence were of relevance. Before filling in the previously mentioned tests, the participants were asked about their demographics, field of study, and whether they were university students. The data for this study was collected using the online survey platform Qualtrics (www.qualtrics.com). In total, the survey consisted of 167 items and the median duration to complete the questionnaire among participants was 19.88 minutes.

Ouestionnaires

The questionnaires utilized in this study can be accessed via the link in the appendix.

Emotional Intelligence

In order to measure emotional intelligence, the Trait Emotional Intelligence Questionnaire – Short Form (TEIQue-SF) was utilized (Petrides, 2009). It encompasses 30 items, of which two of each of the 15 facets of the TEIQue were included, to be answered on a 7-point Likert-type response scale (1 = completely disagree, 7 = completely agree). Items were primarily chosen based on their correlations with the total facet scores to ensure a comprehensive representation of the construct's sampling domain. The short form of the inventory is suitable for research designs with restricted experimental time or where trait EI is not the main focus. Although it is possible to generate scores for the four trait EI factors besides the global total score from this assessment, their internal consistencies tend to be

lower (around $\alpha = 0.69$) compared to those in the complete version of the inventory ($\alpha = 0.92$). The SF does not provide scores for the 15 trait EI facets. Higher scores on the TEIQue indicate a greater level of emotional intelligence. In this study, the reliability of the total score, indicated by a Cronbach's alpha coefficient of .89, was considered good.

Attachment Styles

To measure the participants' anxious and avoidant attachment styles, the respondents were asked to fill in the Adult Attachment Questionnaire (AAQ; Simpson et al., 1996). The AAQ consists of 17 items with a 7-point Likert-type response scale (1 = strongly disagree, 7 = strongly agree) and is used to assess how an individual can relate to their romantic partners, distinguishing between avoidance (items 1-3, 5-9) and anxiety (items 4, 10-17). Participants' responses to these items are summed together to calculate a total score. Higher scores on these dimensions indicate greater avoidance or anxiety, while lower scores on both dimensions indicate greater attachment security. The internal consistency for the avoidant dimension was previously considered good (Cronbach's α = .70 for men and α = .74 for women), and so was the internal consistency for the anxious dimension (Cronbach's α = .72 for men and Cronbach's α = .76 for women) (Simpson et al., 1996). In this study, the overall internal consistency of the questionnaire was good, with a Cronbach's alpha coefficient of .83. Additionally, the Avoidance scale demonstrated adequate internal consistency (α = .77), while the Anxiety scale exhibited good reliability (α = .82).

Gaslighting Acceptance

The acceptance of the gaslighting in intimate relationships was assessed using the Gaslighting Questionnaire (March et al., 2023). The questionnaire was developed using previous measures and a review of extant literature and consists of 18 items. The participants were asked to indicate how acceptable they found a set of intimate relationship scenarios, ranging from 0 (Unacceptable) to 7 (Acceptable). In the final form of the questionnaire, ten items with the highest factor loading (accounting for 75.9% of the total variance) were retained. The gaslighting questionnaire has shown excellent internal consistency (Cronbach's α = .97; March et al., 2023). Participants' responses to these items are summed together to calculate a total score. Higher total scores on the questionnaire indicate greater acceptance of gaslighting within intimate relationships. Cronbach's alpha in the current study was .86, suggesting good internal consistency reliability.

Procedure

Before filling in the survey, the respondents were informed about their rights and the procedure of the study. After obtaining all the information, the participants gave active online

informed consent to participate in the study. To prevent social desirability bias and self-enhancement bias, the information given did not explicitly mention that the study measured acceptance of gaslighting, but rather gave a general description of the study objective. The participants filled in the questionnaire on their own digital devices. Once the survey was completed, the participants who were recruited through the SONA platform, received 0.25 research participation credits for participating in the study.

Statistical Analysis

All statistical analyses were performed with R, version 4.4.0. Before proceeding with any analyses, the data underwent a thorough cleaning process to ensure accuracy and reliability in the subsequent statistical procedures. Descriptive statistics were computed to summarize the central tendency, variability, and distribution of the variables of interest. Additionally, normality was visually assessed by creating histograms.

For the statistical analysis, *Attachment Style* was considered to be the independent variable (IV) and *Gaslighting Acceptance* as the dependent variable (DV). *Emotional intelligence* served as the moderating variable in the relationship between attachment style and gaslighting acceptance.

To test the linear association between the variables attachment style, emotional intelligence, and gaslighting acceptance, a bivariate Pearson correlation analysis was performed. In case of non-normally distributed scale scores, non-parametric Spearman's rank correlation coefficient was additionally calculated. Correlations with two-sided p-values < .05 were considered to be statistically significant.

The potential moderating role of EI on the relation between attachment style and gaslighting acceptance was tested with Hayes' Process function for a moderation analysis (model 1). This function is based on the linear regression framework developed by Hayes (2018). The procedure automatically centers the predictors to avoid multicollinearity and calculates bootstrapped 95% confidence intervals around the interaction effect. If the 95% confidence interval does not contain zero, the moderation effect is considered significant. Hayes' Process function offers several advantages over the traditional approach of moderation analysis by Baron and Kenny (1986). Firstly, it automates critical steps such as predictor centering, reducing multicollinearity issues and improving the stability of parameter estimates. Furthermore, it provides more reliable estimations of moderation significance in comparison to simple *p*-values by computing bootstrapped confidence intervals around the interaction effect. Moreover, the process function not only indicates significance, but also allows to examine the nature and direction of the moderating effect by considering both

significance and shape of conditional effects, offering a more comprehensive analysis. The presence or absence of a moderating effect was additionally visualized with an interaction plot. The complete R script generated for the analysis of this study can be accessed via the link in the appendix.

Results

In this study, a total of 143 participants started the questionnaire, with 108 participants completing the TEIQue-SF, 111 participants completing the AAQ, and 109 participants completing the Gaslighting Questionnaire. Upon combining the data from these questionnaires into one dataset and removing participants with missing values, 99 participants that fully completed all items of the three scales of interest were retained for analysis.

In total, 69 females (mean age: 24.88, SD = 7.48), 29 males (mean age: 26.04, SD = 7.53) and one of a different gender participated in the study. The respondents originated from Germany (n = 57), the Netherlands (n = 14), and other countries (n = 26). This convenience sample encompassed 54 psychology students and 45 participants with other fields of study or occupations.

Table 1Distribution of Gender and Nationality in the Study Sample

	Male	Female	Other	Total
Germany	15 (15.15%)	43 (43.43%)	0	58 (58.58%)
Netherlands	7 (7.07%)	8 (8.08%)	0	15 (15.15%)
Other	7 (7.07%)	18 (18.18%)	1 (1.01%)	26 (26.26%)
nationalities				
Total	29 (29.29%)	69 (69.69%)	1 (1.01%)	99 (100%)

Descriptive statistics tables were generated to summarize key characteristics of the variables of interest. Table 2 represents the mean, standard deviation, median, minimum, and maximum values for Emotional Intelligence and the sub facets wellbeing, self-control, emotionality, and sociability as well as of attachment style and the related avoidance and anxiety scales and lastly, gaslighting acceptance.

 Table 2

 Descriptive Statistics Table for Emotional Intelligence

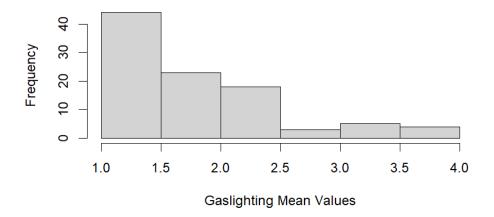
	Mean	SD	Median	Min	Max
Emotional Intelligence	4.83	0.75	4.90	2.23	6.43
Wellbeing	5.18	5.50	5.50	1.17	7.00
Self-control	4.45	4.67	4.67	1.50	6.50

	Mean	SD	Median	Min	Max
Emotionality	4.93	5.00	5.00	2.00	7.00
Sociability	4.44	4.50	4.50	2.00	6.83
Attachment Style	3.71	0.90	3.59	1.76	6.18
Avoidance	3.66	1.04	3.62	1.25	5.88
Anxiety	3.75	1.14	3.78	1.33	6.44
Gaslighting Acceptance	1.77	0.72	1.7	1	4

Inspection of the normality of the scale scores showed that the data for emotional intelligence and attachment style was approximately normally distributed. For gaslighting acceptance, scores were severely positively skewed due to a ceiling effect (see Figure 1).

Figure 1Histogram of Distribution of Gaslighting Means

Distribution of Gaslighting Means



The Pearson correlation analysis represented in Table 3 revealed that emotional intelligence displayed a significant and strong negative correlation with attachment style (r (97) = -.60, p < .001), indicating that individuals with higher levels of emotional intelligence were more likely to be more securely attached. Gaslighting acceptance correlated slightly negative, but non-significantly with emotional Intelligence (r (97) = -.09, p = .38) and demonstrated a negligible correlation with attachment style (r (97) = -.05, p = .65), suggesting that gaslighting acceptance was not significantly associated with EI or attachment style. Since the normality assumption was violated, the Spearman's rank correlation coefficient was also calculated to assess the relationship between attachment style and gaslighting acceptance. This non-parametric correlation was not statistically significant (rho = -.012, p = .91) either.

Table 3Pearson Correlations between Emotional Intelligence, Attachment Style, and Gaslighting

Acceptance

Variable	Mean	SD	1	2	
1. Emotional Intelligence	4.83	0.75			
2. Attachment Style	3.71	0.90	60**		
3. Gaslighting Acceptance	1.77	0.72	09	05	

Note. **p < .01.

In Table 4, the correlations between the subscales of the emotional intelligence questionnaire (*wellbeing*, *self-control*, *emotionality*, and *sociability*) as well as the subscales of the attachment style questionnaire (*avoidance* and *anxiety*) to gaslighting acceptance can be inferred. Similar to the overall measure of emotional intelligence and attachment style, the subscales did not show any significant correlations with gaslighting acceptance.

Table 4Pearson Correlations between Gaslighting Acceptance and Subscales of Emotional
Intelligence and the Subscales of Attachment Style

Variable	Mean	SD	1
1. Gaslighting	1.77	0.72	
Acceptance			
2. Wellbeing	5.18	1.09	09 [28, .11]
3. Self-control	4.45	0.98	.03 [17, .22]
4. Emotionality	4.93	0.99	17 [36, .03]
5. Sociability	4.44	0.94	.07 [13, .26]
6. Avoidance	3.66	1.04	.05 [14, .25]
7. Anxiety	3.75	1.14	11 [30, .09]

Note. 95% CI are listed in square brackets.

The findings of the moderation analysis (see Table 5) confirmed that neither attachment style (B = -.13, p = .22) nor emotional intelligence (B = -.19, p = .14) had statistically significant main effects on gaslighting acceptance. The moderation analysis utilizing the subscales of attachment style, avoidance (B = -.0002, p = .99) and anxiety (B = -.13, p = .08), also did not yield any significant results. Additionally, the interaction term between attachment style and emotional intelligence showed no significant interaction with

gaslighting acceptance (B = .04, p = .69) with the bootstrapped confidence intervals around the interaction effects containing zero.

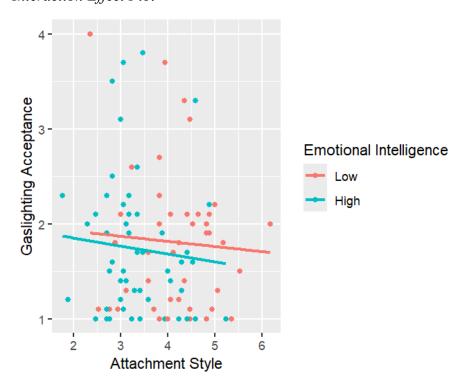
Table 5Moderating effect of Emotional Intelligence on the relation between Attachment Style and Gaslighting Acceptance

Variable	В	t	p	Bootstrapped
				95% CI
Attachment Style	-0.13	-1.24	0.22	[-0.33, 0.09]
Emotional Intelligence	-0.19	-1.49	0.14	[-0.50, 0.14]
Interaction	0.04	0.39	0.69	[-0.14, 0.14]

The lack of a moderation effect by EI is visualized in Figure 2. This figure shows that the association between attachment style and gaslighting acceptance was very similar for those scoring below the mean (low) on EI and those scoring above the mean (high) on EI. This is shown by the two lines with similar slopes (red and blue) representing values below and above the mean of EI.

Figure 2

Interaction Effect Plot



Discussion

This study aimed to explore the association between attachment styles and gaslighting acceptance and whether and how emotional intelligence could play a moderating role within this relationship. The findings showed no significant correlation between attachment style and gaslighting acceptance, nor did emotional intelligence influence the strength of this relationship. However, despite not being the focus of this study, a strong significant correlation was found between attachment style and emotional intelligence, confirming previous findings in the literature (Hamarta et al., 2009; Kafetsios, 2004, as cited in Brackett, 2011).

When reviewing the results, first it becomes evident that gaslighting acceptance was relatively low amongst participants in this study, particularly visible through the distribution of gaslighting acceptance mean scores (Figure 1). This could have a variety of reasons, one of which concerns potential selection bias resulting from the convenience sample of this study. Despite the rather diverse sample, incorporating participants with different backgrounds and of different ages, more than half of the participants were psychology students. Since there are currently many students conducting their research, and therefore read through the research proposals including the association with gaslighting for this study, they may have been biased, although the term gaslighting was purposely not used to avoid this kind of bias.

Since the nature of this study was exploratory, it was not entirely clear in what way EI moderates the relationship between attachment style and gaslighting acceptance. The outcome data of this study suggested that neither high values nor low levels of EI would lead to higher levels of gaslighting acceptance. This may, in part, stem from the convenience sample with rather higher levels of emotional intelligence as well as individual differences of how EI moderates this association. Replicating this study with a more diverse and larger sample and using more nuanced measurements could reveal more insights into what role EI plays within this relationship.

Additionally, the study by Kaur et al. (2012) evidently showed that psychology students display higher levels of emotional intelligence than students from other professions. As already mentioned, individuals with higher levels of EI tend to be more securely attached and, in turn, may be less likely to be accepting of gaslighting. Another factor to be considered is the gender of participants. More than half of the sample were females and, as mentioned earlier, gaslighting victimization mainly affects women and other minority groups (Sweet, 2019). Lastly, the fact that the sample consisted of predominantly young and educated

individuals could have influenced the outcomes of this study. Hence, these demographic distributions provide an additional plausible explanation for the study's findings.

Adding to that, March et al. (2023) found that all dark Tetrad traits were associated with more acceptance of gaslighting tactics. Given the established negative correlation between emotional intelligence and the dark Tetrad traits (Miao et al., 2019), one might expect that individuals with lower levels of emotional intelligence would exhibit higher acceptance of gaslighting tactics, mirroring the findings of March et al. (2023). However, contrary to this expectation, the current study did not reveal a significant relationship. These finding prompts speculation regarding potential differences in sample characteristics as a contributing factor to the non-significant findings. These include sample size, occupation, but also cultural differences.

Despite the fact that the sample size in Mach et al.'s (2023) study was three times larger, the sample size of 99 in this study still exceeded the required 84 participants based on the power analysis. Besides, most of their sample did not consist of students (83.8%). Furthermore, all participants in March et al.'s (2023) study originated from Australia, whereas in this study, most participants originated from Germany, the Netherlands, and other countries (25%), creating a rather diverse sample. Despite no evidence on the prevalence of more domestic violence in Australia than in other countries, there may be cultural differences that underlie the tendency for more acceptance of gaslighting acceptance, making the association between cultural differences and gaslighting acceptance an interesting research topic for future investigations.

Another crucial factor to be considered is that gaslighting behavior in itself is quite different from measuring the *acceptance* of gaslighting. March et al. (2023) surprisingly found significant correlations between the dark Tetrad Traits and gaslighting acceptance with their own developed questionnaire. Although the gaslighting questionnaire does have a high reliability, it is important not to equalize these concepts. Whereas gaslighting behavior refers to manipulative tactics to destabilize a victim and create a surreal environment, the acceptance of gaslighting measures how acceptable individuals find these tactics within intimate partner relationships. It is an indicator of one's tolerance or justification for such behaviors, rather than a direct measure of engaging in gaslighting. This distinction is crucial as to ensure that gaslighting behavior is not directly inferred from gaslighting acceptance

Moreover, a significant challenge to measuring gaslighting acceptance is that social desirability bias can often undermine the validity of self-report measures. This emphasizes the potential usefulness for an implicit measurement of gaslighting to enable more accurate and

unbiased assessment of gaslighting acceptance. While there is a continuous debate on what implicit measures are and how they can be successfully established, implicit measurement typically involves capturing psychological attributes without the need for subjective attitudes of participants (Gawronski & De Houwer, 2014). Over the past decade, a variety of implicit measures have been designed, of which the most commonly used paradigm is the Implicit Association Task (IAT) by Greenwald et al. (1998). Reaction times of the IAT would indicate whether participants unconsciously associate gaslighting rather positively or negatively. Interestingly, a study by Snowden et al. (2004) using an implicit test for social cognition, found that murderers with high levels of psychopathy encompass low affective associations to violence in comparison to murderers with low levels of psychopathy. This suggests that implicit measures can effectively reveal unconscious attitudes and associations, providing valuable insights into the underlying psychological processes related to behaviors such as gaslighting.

One could also argue that measuring trait EI instead of ability EI introduced even more bias to the study. As already mentioned, trait EI pertains to an individual's proclivity for regulating their emotions and is commonly assessed through self-report instruments (García-Sancho et al., 2014), whereas ability EI is construed as a cluster of skills fostering the adept use of emotions within cognitive processes, typically evaluated through performance tests. Naturally, self-report measures present a number of disadvantages, such as social desirability bias, under- or overestimation of the level of EI, or the lack of ecological validity. However, EI self-report measures typically possess strong psychometric properties, are grounded in a sound theoretical framework, and show moderate to significant correlations with a wide range of outcome variables (Bru-Luna et al., 2021). They also demonstrate good incremental validity over cognitive intelligence and personality compared to ability-based EI tests. Due to these strengths and the high reliability of the TEIQue-SF, it can be a valuable tool in assessing emotional intelligence despite its disadvantages.

Considering the caveat for potential biases, especially through the use of a self-report measure and a convenience sample, it is noteworthy to mention, that the use of Hayes' process function in the analysis for this study provided more reliable estimations of moderation significance by computing bootstrapped confidence intervals around the interaction effect. Additionally, the Cronbach's alpha of all used scales indicated adequate up to good reliabilities, demonstrating that these instruments consistently measured the intended constructs.

Although research on gaslighting is still in its early stages, it has been conceptualized to include five distinct forms, such as glamour gaslighting and intimidator gaslighting. This study primarily focused on the intimidator form of gaslighting, based on the research by March et al. (2023). It is crucial to further investigate and explore all forms of gaslighting to shed more light on gaslighting and how it can be understood better.

Future research should also aim to address the limitations of the current study by recruiting more diverse samples, including a variety of cultures, age ranges, and professional fields beyond psychology. Researchers should also explore more potential mediating or moderating factors that may influence the relationship between attachment style and gaslighting acceptance. Moreover, it is important to consider other trait factors than attachment style that could be associated with the acceptance of gaslighting while keeping in mind the five different forms of gaslighting, which could provide a more comprehensive understanding of how these tactics manifest and affect individuals. Developing and utilizing implicit measures of gaslighting acceptance, as opposed to relying solely on self-report instruments, would also enhance the validity of future findings by reducing biases such as social desirability and self-enhancement.

In conclusion, this study expanded the evidence base on gaslighting and what factors may be associated with its acceptance. Despite no significant findings between attachment style and gaslighting acceptance, the significant relationship between attachment style and emotional intelligence suggests insightful avenues for future investigations. These findings also emphasize the necessity for more nuanced and methodologically robust research to elucidate the complexities of gaslighting. While individuals with high emotional intelligence and secure attachment appear to be less acceptive of manipulative tactics, understanding and mitigating gaslighting requires a multifaceted approach that considers a wide range of psychological and contextual factors. By enhancing our understanding of these relationships, we can better equip individuals to recognize and resist gaslighting in various aspects of their lives.

References

- Austin, E. J., Farrelly, D., Black, C., & Moore, H. (2007). Emotional intelligence,

 Machiavellianism and emotional manipulation: Does EI have a dark side? *Personality*and individual differences, 43(1), 179-189. https://doi.org/10.1016/j.paid.2006.11.019
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173
- Bonache, H., Gonzalez-Mendez, R., & Krahé, B. (2019). Adult attachment styles, destructive conflict resolution, and the experience of intimate partner violence. *Journal of interpersonal violence*, *34*(2), 287-309. https://doi.org/10.1177/0886260516640776
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American journal of Orthopsychiatry*, 52(4), 664. https://doi.org/10.1111/j.1939-0025.1982.tb01456.x
- Brackett, M. A., Rivers, S. E., & Salovey, P. (2011). Emotional intelligence: Implications for personal, social, academic, and workplace success. *Social and personality psychology compass*, 5(1), 88-103. https://doi.org/10.1111/j.1751-9004.2010.00334.x
- Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C., & Cervera-Santiago, J. L. (2021). Emotional intelligence measures: A systematic review. *Healthcare*, *9*(12), 1696. https://doi.org/10.3390/healthcare9121696
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of personality and Social Psychology*, *58*(4), 644-663. https://doi.org/10.1037/0022-3514.58.4.644
- García-Sancho, E., Salguero, J., & Fernández-Berrocal, P. (2014). Relationship between emotional intelligence and aggression: A systematic review. *Aggression and Violent Behavior*, 19(5), 584–591. https://doi.org/10.1016/j.avb.2014.07.007
- Gawronski, B., & De Houwer, J. (2014). Implicit measures in social and personality psychology. *Handbook of Research Methods in Social and Personality Psychology* (2nd ed., pp. 283-310). Cambridge University Press.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of personality and social psychology*, 74(6), 1464. https://doi.org/10.1037/0022-3514.74.6.1464
- Hamarta, E., Deniz, M., & Saltali, N. (2009). Attachment Styles as a Predictor of Emotional Intelligence. *Educational Sciences: Theory and Practice*, *9*(1), 213-229.

- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis:*A regression-based approach (2nd ed.). Guilford Press.
- Hughes, S., & Samuels, H. (2021). Dark desires: The Dark Tetrad and relationship control. *Personality and Individual Differences*, *171*, 110548. https://doi.org/10.1016/j.paid.2020.110548
- Kaur, H., Singh, V., & Singh, P. (2012). Emotional intelligence: Significance of psychology and spirituality. *Pakistan Journal of Social and Clinical Psychology*, 9(2), 32-36.
- Klein, W., Li, S., & Wood, S. (2023). A qualitative analysis of gaslighting in romantic relationships. *Personal Relationships*, *30*(4), 1316-1340. https://doi.org/10.1111/pere.12510
- Kurniawan, L., & Limanta, L. S. (2021). Unwritten Scars: Gaslighting in Relationships. *Kata Kita: Journal of Language, Literature, and Teaching*, 9(2), 253-258. https://doi.org/10.9744/katakita.9.2.253-258
- March, E., Kay, C. S., Dinić, B. M., Wagstaff, D., Grabovac, B., & Jonason, P. K. (2023). "It's All in Your Head": Personality Traits and Gaslighting Tactics in Intimate Relationships. *Journal of Family Violence*, 1-10. https://doi.org/10.1007/s10896-023-00582-y
- Miao, C., Humphrey, R. H., Qian, S., & Pollack, J. M. (2019). The relationship between emotional intelligence and the dark triad personality traits: A meta-analytic review. *Journal of Research in Personality*, 78, 189-197. https://doi.org/10.1016/j.jrp.2018.12.004
- Nagler, U. K., Reiter, K. J., Furtner, M. R., & Rauthmann, J. F. (2014). Is there a "dark intelligence"? Emotional intelligence is used by dark personalities to emotionally manipulate others. *Personality and individual differences*, 65, 47-52. https://doi.org/10.1016/j.paid.2014.01.025
- Petric, D. (2018, September 29). *Gaslighting and the knot theory of mind*. Medicine. https://medicine436.wordpress.com/2018/09/29/gaslighting-and-the-knot-theory-of-mind/
- Petrides, K. V. (2009). Psychometric Properties of the Trait Emotional Intelligence

 Questionnaire (TEIQUE). In *Plenum series on human exceptionality* (pp. 85–101).

 https://doi.org/10.1007/978-0-387-88370-0_5
- Shaver, P., & Hazan, C. (1987). Being lonely, falling in love. *Journal of Social Behavior and Personality*, 2(2), 105.

- Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of personality and social psychology*, *59*(5), 971. https://doi.org/10.1037/0022-3514.59.5.971
- Simpson, J. A., Rholes, W. S., & Phillips, D. (1996). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology*, 71(5), 899–914. https://doi.org/10.1037/0022-3514.71.5.899
- Snowden, R., Gray, N., Smith, J., Morris, M., & MacCulloch, M. (2004). Implicit affective associations to violence in psychopathic murderers. *Journal of Forensic Psychiatry & Psychology*, *15*(4), 620-64. https://doi.org/10.1080/14789940412331313377
- Sweet, P. L. (2019). The sociology of gaslighting. *American Sociological Review*, 84(5), 851-875. https://doi.org/10.1177/0003122419874843

Appendix

https://osf.io/jv8ty/?view_only=8866489b6b0c4181a2c88b172c60bb7a