The association of Dark Triad personality traits with infidelity: Evidence from the Greek-cultural context

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ABSTRACT

The Dark Triad is an important aspect of human personality, and there is evidence that it associated with infidelity. The current research aimed to examine the association between Narcissism, Psychopathy, and Machiavellianism traits and different aspects of infidelity in the Greek cultural context. In particular, using a sample of 509 Greek-speaking participants [57.5% women, mean age 36.5 (SD = 11.7), 42.5% men, mean age 40.1 (SD = 13.1)], we found that higher scores in Psychopathy were associated with higher incidence of infidelity and willingness to be unfaithful to one’s partner. Moreover, men and women who scored higher in Psychopathy were more likely to be detected by their partners when unfaithful. Men who scored high in Psychopathy were also more suspicious of their partners for being unfaithful than men who scored low. However, the scores in the Dark Triad traits did not predict the probability to detect a partner’s infidelity neither for men nor for women. Overall, in the Greek cultural context, the Dark Triad traits were associated with certain aspects of infidelity.

KEYWORDS

Dark Triad, infidelity, cheating, psychopathy, mating

INTRODUCTION

The term Dark Triad describes a constellation of three subclinical socially undesirable personality traits, namely Narcissism, Psychopathy, and Machiavellianism (Paulhus & Williams, 2002). These personality traits have been associated with a disposition toward infidelity (Jonason, Li, Webster, & Schmitt, 2009; Jones & Weiser, 2014). For the purpose of our research, we define infidelity as sexual or romantic involvements outside of the primary relationship without or against the consent of the primary partner. The current research aimed to examine the association between the Dark Triad traits and different aspects of infidelity in the Greek-cultural context. We will begin by discussing the evolutionary roots of the Dark Triad traits, and how they relate to infidelity.

The evolutionary origins of the Dark Triad personality traits

The Dark Triad consists of Psychopathy which is characterized by callousness, impulsive thrill-seeking, and antisocial behavior, Machiavellianism which is characterized by strategic manipulation, and Narcissism which is associated with grandiosity, egocentrism, and a sense of personal entitlement (Jones & Paulhus, 2010). These traits are socially undesirable as high scorers tend to be exploitative, egocentric, and lack empathy (Furnham, Richards, & Paulhus, 2013). It follows that individuals who score high in them would suffer fitness penalties (i.e., survival and reproductive costs). However, the existence of these traits in the contemporary population in relatively high frequency suggests that, at least in the ancestral human societies, they have been associated with fitness benefits that balanced their fitness costs. These benefits involve gaining access to extra-pair mates, pointing to an association between Dark Triad and...
infidelity. Prior to discussing this association, we would make a brief summary of evolutionary theories on the Dark Triad.

Mealey (1995) was among the first to argue that dark personality traits enable those who have them to obtain survival and reproductive benefits by acting as social parasites. More recently, it has been proposed that the Dark Triad traits indicate a fast life history strategy (Jonason & Tost, 2010; McDonald, Donnellan, & Navarrete, 2012). A fast life history strategy involves producing a large number of offspring, but investing little in them (Del Giudice, 2020; Kaplan & Gangestad, 2005). This strategy can be adaptive in harsh and unpredictable environments, because it increases the probability of producing at least some surviving offspring (Ellis, Figueredo, Brumbach, & Schlomer, 2009). In the domain of mating, a fast life history strategy would be associated with having many short-term mates. Accordingly, high scores in the Dark Triad traits are positively related to having more sex partners, an unrestricted sociosexuality, and a greater preference for short-term mates (Jonason et al., 2009).

**Dark Triad and infidelity.** High scorers in the Dark Triad do not confine themselves to casual relationships, but also form long-term ones (Campbell & Foster, 2002). One reason is that long-term mating is held as socially desirable, and is to some degree socially enforced (Kanazawa & Still, 1999). Perhaps a more important reason is that, long-term mating has considerable survival and reproductive benefits, which cannot be matched by exclusive short-term mating. In particular, human children require considerable, reliable, and prolonged parental investment if they are to reach sexual maturity. In addition, a mate constitutes a source of emotional and financial support. Moreover, long-term mating is associated with much lower risk of being infected with sexual transmitted diseases than short-term mating (Greiling & Buss, 2000).

In effect, an evolutionary niche for exclusive short-term mating has probably been very small or inexistent. On the other hand, an evolutionary niche for a mixed strategy, where individuals have one long-term partner as well as casual extra-pair ones, has probably being large, as it allows individuals to reap the benefits of both long- and short-term mating (Apostolou, 2021; Gangestad & Simpson, 2000). In this respect, selection forces may have favored high Dark Triad traits to enable individuals to adopt a mixed-mating strategy. This argument is to some degree consistent with the hypothesis that Dark Triad traits reflect a fast life history strategy, because the more prone someone is to extra-pair mating, the higher the chances are to be caught and the long-term relationship to end. This evolutionary argument leads to the prediction that high scorers in the Dark Triad traits would be more willing and thus, more likely to cheat. The current literature provides support for this hypothesis.

**The association between the Dark Triad and infidelity**

Different studies have explored the association of different personality traits with infidelity (Buss & Shackelford, 1997; Schmitt & Shackelford, 2008; van Zyl, 2021). More recently, empirical work has focused specifically on the Dark Triad. To begin with, with respect to the willingness to commit infidelity, Brewer, Hunt, James, and Abell (2015) recruited women from the campus of a British university, and found that the ones with higher levels of Narcissism and Psychopathy were most likely to report the intention to engage in infidelity. Alavi, Kye Mei, and Mehrinezhad (2018) employed a sample of 140 young Malaysian adults who were in an intimate relationship, and found that high scorers in Psychopathy and Machiavellianism indicated a higher willingness to commit infidelity than low scorers. Similarly, Sevi, Urganci, and Sakman (2020) employed a sample of 309 participants residing in the United States, and found that Psychopathy was the only significant predictor, with higher scorers being more likely to be unfaithful than lower scorers.

Furthermore, there are two studies which examined the effect of the Dark Triad on the occurrence of infidelity. To begin with, Jones and Weiser (2014) employed a sample of 884 participants in the USA, and found that for men, only psychopathy was a significant predictor of infidelity, with higher scorers being more likely to be unfaithful than lower scorers. For women, both Psychopathy and Machiavellianism were significant predictors of infidelity, also with higher scorers being more likely to be unfaithful than lower scorers. Narcissism was a significant predictor, but it was negatively related to committing infidelity. Moreover, Brewer et al. (2015) employed a sample of 102 women recruited from the campus of a British university, and found that Narcissism was the only significant predictor, such that higher scorers were most likely to report previous incidence of infidelity.

**The current study**

The existing literature provides support for the hypothesis that the Dark Triad traits are associated with infidelity. However, the relatively small number of studies and the inconsistency of some results, indicate that further replication is necessary. In addition, prior studies have used predominantly American and British samples, and their findings may not generalize to other cultural contexts. Accordingly, it is important to examine the association between Dark Triad and infidelity in different non-English speaking cultural contexts. Thus, the current research aimed to examine this association in a Greek-speaking sample.

Moreover, there are evolutionary reasons to believe that the effect of these traits on infidelity would be different for men and for women. In particular, men’s reproductive success in positively correlated to the number of women they can gain sexual access to (Schmitt, Shackelford, & Buss, 2001). Thus, to the extent that they are associated with gaining access to more partners, high scores in the Dark Triad would confer more fitness benefits to men. Yet, only Jones and Weiser (2014) examined such effect separately for men and for women.

Furthermore, we expect that the Dark Triad would be associated with additional aspects of infidelity. In particular, higher incidence of extra-pair mating leads to higher
chances to be caught cheating, which in turn, leads to the prediction that high scorers in the Dark Triad personality traits would be more likely to be caught than low scorers. In addition, high scores in the Dark Triad are associated with low agreeableness, which in turn, is associated with low trust in people (Matthews, Deary, & Whiteman, 2015; Paulhus & Williams, 2002). Accordingly, we predict that high scorers would be less likely to trust their long-term partners to be faithful to them, and would be more likely to suspect them for infidelity. These suspicions would be strengthened by their own infidelity, because they may think that if they have extra-pair relationships, their partners are likely to do the same. Higher suspiciousness would motivate action to detect infidelity, which leads to the prediction that high scorers in the Dark Triad personality traits would be more likely to detect infidelity than low scorers.

To the best of our knowledge, there are no studies which have attempted to examine the association of the Dark Triad traits with the probability to be caught cheating, suspicions of infidelity, and detection of infidelity. Accordingly, the current research aims to extend the existing literature by examining the effects of the Dark Triad traits on the occurrence and the willingness to cheat, separately for men and for women, in a different cultural context. In particular, we test the prediction that high scores in the Dark Triad would be more willing and likely to cheat (H1). Moreover, we test the predictions that high scorers in the Dark Triad would be more likely to be caught cheating (H2), would be more suspicious of their partners cheating (H3), and would be more likely to detect infidelity (H4).

**METHODS**

**Participants**

The study run online, and was designed and executed at a private university in the Republic of Cyprus. The project received ethics approval from the institution’s ethics committee. Participants were recruited by forwarding the link of the study to students and colleagues, asking them to forward it further. In addition, the study was promoted on Facebook and Instagram to participants residing in Greece and in the Republic of Cyprus. In order to participate, individuals had to be at least 18 years old. Participants did not receive any reimbursement for taking part.

In total, 509 (292 women, 216 men, while in one case the sex was not recorded) Greek-speaking individuals participated. The mean age of women was 36.5 (SD = 11.7), and the mean age of men was 40.1 (SD = 13.1). In addition, 32.6% of the participants were single, 32.2% were married, 28.9% were in a relationship, and 6.3% indicated their marital status as “other.”

**Materials**

The survey was designed in Google Forms, was in Greek and had three parts. A pilot study indicated that it took participants approximately five minutes to complete the study.

In the first part, Dark Triad traits were measured using the Short Dark Triad (SD3) instrument, which has good validity and reliability (Jones & Paulhus, 2014). The instrument consisted of 27 questions that participants had to answer in the following five-point scale: 1- Strongly disagree to 5 - Strongly agree. Questions included “I like to use clever manipulation to get my way” (Machiavellianism), “Many group activities tend to be dull without me” (Narcissism), “It’s true that I can be mean to others” (Psychopathy). Internal consistency (Cronbach’s alpha) for Machiavellianism was 0.83, for Narcissism 0.86, and for Psychopathy 0.80.

In the second part, different aspects of infidelity were measured using instruments employed in previous research (Apostolou & Antonopoulou, 2022). In particular, in order to measure the occurrence of infidelity, participants were asked the following question “Are you cheating on your current partner or have you cheated on your former partners in the past?” Participants’ answers were recorded in the following scale: “Never,” “Few times,” “Many times.” In order to measure willingness to cheat, participants were asked the following questions: “If given the opportunity, would you cheat on your current partner?” and “If you were given the opportunity, would you have cheated on your former partners?” Participants’ answers were recorded in the following scale: 1- Not at all likely, 5 - Very likely.

Furthermore, in order to measure the frequency of infidelity detection, participants were asked the following: “Have you ever found out that your current partner or ex-partners cheated on you?” In order to measure suspiciousness of infidelity, participants were asked the following: “Have you ever suspected that your current partner was cheating on you or that your previous partners cheated on you?”

Furthermore, in order to measure frequency of being caught cheating, participants were asked the following: “Has your partner or ex-partners found out that you are cheating on them?” Participants’ answers in all three questions were recorded in the following scale: “Never,” “Few times,” “Many times.” In the third part, demographic information was collected, including sex, age, and marital status.

**Data analysis**

In order to identify significant effects on infidelity occurrence, probability to be caught, suspiciousness, and detection of infidelity, we performed a series of multinomial logistic regression tests. More specifically, participants’ answers in each scenario were entered as the dependent variable, and participants’ age and scores in the Dark Triad traits were entered as independent variables. Multinomial logistic regression is appropriate here because the dependent variables are categorical with relatively few levels. With respect to the willingness to cheat, we performed multiple regression analysis, where participants’ scores on their willingness to cheat on their previous and on their current partners were entered as the dependent variable, and participants’ age and scores in the Dark Triad were entered as independent variables. All statistical tests were performed separately for each sex.
RESULTS

Engaging in infidelity (H1)

Starting from women, 42.8% said that they have never cheated on their partners, 50.3% that they have cheated few times, and 6.8% several times. Moreover, with respect to men, 38.6% said that they have never cheated on their partners, 49.8% that they have cheated few times, and 11.6% several times. Moving on to the statistical analysis, as we can see from Table 1, for women there was a significant main effect of Psychopathy, with the Odds Ratio (OR) indicating that one unit increase in this dimension was associated with a 4.14 times increase in the probability to be in the “Several times” than in the “Never” category.

With respect to men, there was also a significant main effect of Psychopathy. The OR indicated that one unit increase in this dimension, was associated with a 2.47 times increase in the probability to be in the “Few times” than in the “Never” category. Similarly, one unit increase in this dimension was associated with a 3.69 times increase in the probability to be in the “Several times” than in the “Never” category. Furthermore, there was a significant main effect of Machiavellianism, with the OR indicating that an increase in this dimension was associated with a decrease in the probability to be in the “Never” than in the “Few times” category.

Willingness to cheat (H1)

Women indicated a mean willingness of 2.75 (SD = 1.57), and men a mean willingness of 3.28 (SD = 1.50) to cheat on their previous partners. From Table 1 we can see that, for women, there was a significant main effect of Machiavellianism with a positive coefficient, indicating that higher scorers were more willing to cheat on their previous partners if they had the opportunity to do so. For men, there was a significant main effect of Psychopathy and of Narcissism both with a positive coefficient. Moving on, we run the analysis as above, but this time using participants’ scores on their willingness to cheat on their current partners as the dependent variable. We performed the analysis only on the participants who indicated that they were in a relationship or married. Women indicated a mean willingness of 2.72 (SD = 1.61) and men a mean willingness of 3.13 (SD = 1.49) to cheat on their current partners. From Table 1 we can see that for women, there was a significant main effect of Psychopathy and of Narcissism, both with a positive coefficient, indicating that higher scores in these traits were associated with a higher willingness to cheat on one’s current partner.

Table 1. Multinomial logistic and multiple regression results of the effects of the Dark Triad on infidelity

<table>
<thead>
<tr>
<th>Infidelity</th>
<th>Machiavellianism</th>
<th>Narcissism</th>
<th>Psychopathy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Few times</td>
<td>Many times</td>
<td>Few times</td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engaging in infidelity</td>
<td>0.246</td>
<td>1.28</td>
<td>1.90</td>
</tr>
<tr>
<td>Willingness to cheat (previous partners)</td>
<td>&lt;0.001</td>
<td>0.55</td>
<td>0.957</td>
</tr>
<tr>
<td>Willingness to cheat (current partner)</td>
<td>0.123</td>
<td>0.21</td>
<td>0.031</td>
</tr>
<tr>
<td>Caught cheating</td>
<td>0.177</td>
<td>1.44</td>
<td>2.51</td>
</tr>
<tr>
<td>Suspiciousness of infidelity</td>
<td>0.969</td>
<td>0.96</td>
<td>1.01</td>
</tr>
<tr>
<td>Detection of infidelity</td>
<td>0.762</td>
<td>0.99</td>
<td>0.71</td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engaging in infidelity</td>
<td>0.032</td>
<td>0.52*</td>
<td>0.56</td>
</tr>
<tr>
<td>Willingness to cheat (previous partners)</td>
<td>0.985</td>
<td>0.00</td>
<td>0.027</td>
</tr>
<tr>
<td>Willingness to cheat (current partner)</td>
<td>0.171</td>
<td>0.18</td>
<td>0.465</td>
</tr>
<tr>
<td>Caught cheating</td>
<td>0.672</td>
<td>0.84</td>
<td>0.63</td>
</tr>
<tr>
<td>Suspiciousness of infidelity</td>
<td>0.510</td>
<td>0.74</td>
<td>0.79</td>
</tr>
<tr>
<td>Detection of infidelity</td>
<td>0.658</td>
<td>0.82</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Note. The OR refers to the Odds Ratios with the reference category being “Never”.
Note 2. The “b” refers to the coefficient in multiple regression.
Note 3. A “*” indicates that the coefficient was statistically significant. The significance level was estimated based on the Wald statistic.
Moreover, for men, there was a significant main effect of Psychopathy also with a positive coefficient.

**Caught cheating (H₂)**

Starting with women, 74.2% indicated that their partners have never caught them cheating, 24.4% that they have caught them few times, and 1.4% many times. Moving on to men, 68.8% indicated that their partners have never caught them cheating, 27.9% that they have caught them few times, and 3.3% many times. With respect to women, from Table 1 we can see that there was a significant main effect of Psychopathy, with the OR indicating that a one unit increase in this dimension was associated with a 1.91 times increase in the probability to be in the “Few times” than in the “Never” category. In addition, there was a significant main effect of Narcissism, with the OR indicating that one unit increase in this dimension was associated with a decrease in the probability to be in the “Few times” than in the “Never” category. For men, there was a significant main effect of Psychopathy, with the OR indicating that one unit increase in this dimension was associated with a 1.91 times increase in the probability to be in the “Few times” than in the “Never” category, and 5.00 times to be in the “Several times” than in the “Never” category.

**Suspiciousness of infidelity (H₃)**

Starting from women, 22.3% indicated that they have never suspected their partners cheating, 51.9% that they have suspected their partners cheating few times, and 25.8% many times. With respect to men, 22.9% indicated that they have never suspected their partners cheating, 62.1% that they have suspected their partners cheating few times, and 15.1% many times. Moving on to the statistical analysis, for women, from Table 1 we can see that no significant main effects were produced. For men, there was a significant main effect of Psychopathy, with a one unit increase in this dimension to be associated with a 2.57 times increase in the likelihood for participants to indicate that they have cheated “Several times” than in the “Never” category.

**Detection of infidelity (H₄)**

Starting from women, 39.9% indicated that they have never caught their partners cheating, 46.4% indicated that they have caught them cheating few times, and 13.7% many times. With respect to men, 47.2% indicated that they have never caught their partners cheating, 46.3% indicated that they have caught them cheating few times, and 6.5% many times. The multinominal logistic regression analysis did not detect any significant effects of the Dark Triad on the probability of detecting infidelity.

**DISCUSSION**

Our results indicated that higher scores in Psychopathy were associated with higher incidence of infidelity and willingness to be unfaithful to one’s partner. Moreover, men and women who scored higher in Psychopathy were more likely to be detected by their partners cheating. Men who scored high in Psychopathy, were also more suspicious of their partners for being unfaithful than men who scored low. Nevertheless, the scores in the Dark Triad traits did not predict the probability to detect a partner’s infidelity neither for men nor for women.

Consistent with our original prediction, Psychopathy was a significant predictor of infidelity occurrence for both sexes, with higher scorers being more likely to have been unfaithful to their current or previous partners. The effect was large; for instance, one unit increase in Psychopathy in women, was associated with a more than four times increase in the probability to have cheated “Several times” than “Never.” Higher scores in Psychopathy were also associated with a higher willingness to cheat on current and past partners if the opportunity was present. These findings are generally consistent with previous literature, which found that Psychopathy was a significant predictor of actual and intended infidelity (Jones & Weiser, 2014; Sevi et al., 2020).

We also found that, men but not women who scored high in Machiavellianism, reported a lower occurrence of infidelity, but this trait was not a significant predictor of the willingness to cheat. On the other hand, women who scored high in this trait indicated a higher willingness to cheat on their previous partners if they were given the opportunity. These differences seem consistent with previous findings where men high in Machiavellianism are less impulsive, which could be associated with low infidelity (Szabó & Jones, 2019; see also Jones & de Roos, 2017). Narcissism was not a significant predictor of infidelity occurrence for neither sex, but it was a significant positive predictor of the willingness to cheat on past partners for men and on current partner for women. Overall, Psychopathy appeared to be the main predictor of occurrence and willingness to cheat for both sexes, while the effects of Machiavellianism and Narcissism were inconsistent.

In accordance to our original prediction, participants who scored higher in Psychopathy, indicated that they had been more frequently caught cheating than lower scorers. The effect was large; for instance, one unit increase in the Psychopathy scale was associated with more than five times increase in the likelihood for participants to indicate that they had been caught cheating by their partners several times than never. One reason behind this effect is that, high scorers in this dimension cheat more frequently, which in turn, increases the probability to be caught. Another reason is that, high scorers in Psychopathy tend to be reckless and impulsive (Paulhus & Williams, 2002), which make it difficult to keep an extra-pair relationship hidden. Future research needs to be able to distinguish between these two effects. Moreover, women who scored higher in Narcissism indicated a lower probability of detection than women who scored lower. We do not have a working hypothesis for the observed sex difference, and further replication and theoretical work is required to better understand it. Furthermore, Machiavellianism was not a significant predictor of detection
of infidelity for neither men nor women. One reason is that, this trait is not associated with the occurrence of infidelity, so it is not related with the probability of being detected.

With respect to the suspicions of infidelity, men who scored high in Psychopathy reported that they were more suspicious of their partners than men who scored low. One likely reason is that high scorers were also more likely to cheat, which could make them think that their partners were likely to do the same. Yet, higher suspiciousness did not translate into higher probability of detecting a partner’s infidelity. Overall, the Dark Triad traits were not associated with the probability of detecting a partner’s infidelity neither for men nor for women.

Our findings enable a better understanding of the potential fitness cost and benefits of the Dark Triad personality traits. In particular, higher scores in Psychopathy were associated with higher occurrence of infidelity, which could be interpreted to mean that high scorers in this dimension can obtain benefits from long-term intimate relationships, and at the same time, reap benefits from opportunistic extra-pair relationships. Yet, at least male high scorers, do not have a free ride, as they face an increased probability to be detected. Detection involves the cost of termination of the long-term relationship and/or retaliation by the legitimate partner (Amato & Previti, 2003; Buss, 2000). Moreover, high scores in the Dark Triad do not confer any advantage in terms of protecting individuals from their partners’ infidelity.

The current research is not without limitations. To begin with, our study was based on self-report instruments, which are subject to different biases. In particular, people may be dishonest in their answers, and such dishonesty may be predicted by the Dark Triad traits. For instance, participants who score high in Narcissism may underreport incidence of infidelity, which could potentially have an impact on infidelity (see for instance, Jonason & Luoto, 2021; Valentova, de Moraes, & Varella, 2020).

The Dark Triad constitutes a fascinating aspect of human personality. In the current research, we attempted to examine the association of Dark Triad with different aspects of infidelity. Further empirical work, including replication in different cultural settings, is necessary if this association is to be better understood.

REFERENCES


