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# **Does Emotional Intelligence and Resilience moderate the relationship between the Dark Triad and Personal and Work Burnout?**

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## **Abstract**

This paper used moderator analysis to test whether emotional intelligence and resilience moderated the relationship between the dark triad variables and burnout. 232 adults completed measures of all variables. Primary Psychopathy was found to reduce an individual's level of burnout. However, Secondary Psychopathy and Machiavellianism were expected to increase burnout, and although the correlation results supported this, the regression models did not. Narcissism, unexpectedly, had no significant relationship with burnout. As predicted, emotional intelligence provides a buffer against negative effects of the Dark Triad traits but also amplifies the positive effects, such as reducing burnout. Implication and limitations are considered.

**Key Words: dark triad; resilience; emotional intelligence; burnout**

## **1. Introduction**

The Dark Triad comprises of three personality traits, psychopathy, Machiavellianism and narcissism, which are believed to share a common core but have aspects that are unique to each trait (Paulhus & Williams, 2002). Derived from clinical research, psychopathy is made up of 2 factors: Factor 1 representing the core personality traits of a psychopath: selfishness, callousness and lack of empathy and remorse, whereas Factor 2 encompasses the chronic antisocial behaviour that is associated with a psychopath: the chronically unstable and antisocial lifestyle (Hare et al., 1990; Harpur, Hakstian, & Hare, 1988). Machiavellianism is characterized by behaviour that is amoral and manipulative. Individuals scoring high on Machiavellianism are cynical of the individuals around them and willing to adopt the necessary tactics to achieve their goal (Christie & Geis, 1970). The core of Narcissism is an inflated view of self and a sense of entitlement. Consequently, individuals high on this trait display behaviour that exaggerates their abilities and they are not receptive of criticism. As expected others view high narcissists as egotistical and arrogant (O'Boyle, Forsyth, Banks, & McDaniel, 2012).

Recent meta-analyses of the Dark Triad have examined several outcomes such as intelligence (O'Boyle, Forsyth, Banks, & Story, 2013), job performance (O'Boyle et al., 2012), and counter productive work behaviours (CWB; Grijalva & Newman, 2015). They have all shown there is considerable heterogeneity in effect sizes to warrant moderator investigation. However, only a few studies have examined what moderates the Dark Triad and whether those moderating effects are consistent across Dark Triad traits (notable exceptions are Palmer, Komarraju, Carter, & Karau, 2017; Smith, Wallace, & Jordan, 2015). This study attempts just that. Furthermore, this study examines whether there are potential benefits to the individual or an "upside" to these traits that have traditionally been investigated as detrimental to individuals and wider society.

Moderator research is important to identify situational or dispositional factors that not only reduce the negative influence of the Dark Triad on work outcomes but also potentially amplify, and therefore illuminate, the positive influence the Dark Triad traits may have in the workplace. To highlight a few potential moderators, research has found that self-monitoring (Barrick, Parks, & Mount, 2005), emotional intelligence (EI; Douglas, Frink, & Ferris, 2004), and autonomy (Barrick & Mount, 1993) all moderate the relationship between the Big Five personality traits and performance in the workplace.

Consequently, this study will examine two moderators: emotional intelligence and resilience, to investigate whether these variables attenuate the negative influence of the

Dark Triad traits on burnout or whether they may even amplify positive influences the Dark Triad traits have. The majority of the Dark Triad organisational research has focused on variables that assess the negative aspects of workplace behaviour, such as counterproductive work behaviours, little has examined the impact of the Dark Triad traits on well-being variables, such as burnout.

### **1.1 Dark triad and Burnout**

Burnout, which describes a physical and emotional level of exhaustion that can be caused by exposure to extensive periods of stress (Maslach, Schaufeli, & Leiter, 2001), is a disorder that can impact anyone in any particular industry or role. However, certain dispositional characteristics mean that some individuals are more prone to burnout. For example, low Emotional Stability leads to higher burnout. Those that cope actively and confront stressful situations rather than being passive or avoidant are less likely to burnout (Maslach et al., 2001). Trait Psychopathy, specifically Primary Psychopathy, was originally conceptualised as lacking anxiety or having low Neuroticism (Levenson, Kiehl, & Fitzpatrick, 1995).

Currently, there are no studies that have directly examined the relationship between burnout and the Dark Triad. However, there are some studies that have examined related concepts such as stress. Although stress and the experience of stress are distinct from burnout, extensive experience of stress can lead to burnout, therefore insight from such studies may help to understand how the Dark Triad traits relate to burnout. Noser, Zeigler-Hill, and Besser (2014) examined whether the Dark Triad traits moderated the relationship between stress and positive affective experiences. Although the authors found no direct effects of the Dark Triad traits on positive affective experiences, they did find a significant moderation between stress and Psychopathy. Their results suggest high psychopaths are very reactive to stress, which may be due to their lack of impulsive control and their tendency to get frustrated or aggressive with situations.

Ali, Amorim, and Chamorro-Premuzic (2009) found that individuals high in Primary Psychopathy and Machiavellianism experienced positive feelings when looking at sad images and when looking at neutral images, those high in Secondary Psychopathy and Machiavellianism experienced negative feelings. Further, recent research has found Machiavellianism to positively correlate with levels of anxiety (Al Ain, Carré, Fantini-Hauwel, Baudouin, & Besche-Richard, 2013). These results suggest that individuals high Primary Psychopathy may not experience negative emotions or distress when viewing

sad images but the opposite is true for those individuals high in Secondary Psychopathy and Machiavellianism.

It remains unclear what relationship exists between Narcissism and burnout. Noser et al. (2014) proposed that Narcissism would positively predict stressful reactions due to the vulnerable element of Narcissism but the results of their study did not support their hypothesis. However, self-esteem negatively relates to burnout so Narcissism could have the same relationship (Alarcon, Eschleman & Bowling, 2009; Jordan, Spencer, Zanna, Hoshino-browne, & Correll, 2003).

Richardson and Boag (2016) investigated the relationship between the Dark Triad traits, defensive strategies, and stress and found that Machiavellianism positively predicted stress, and this relationship was mediated by immature defense strategies, such as acting out and denial, which are considered to be unhealthy. Narcissism negatively predicted stress and Psychopathy, examined holistically and not split in to Primary and Secondary Psychopathy, did not predict stress.

Consequently, it is hypothesized that Primary Psychopathy (**H1a**) and Narcissism (**H1d**) will correlate negatively with burnout and Secondary Psychopathy (**H1b**) and Machiavellianism (**H1c**) will correlate positively with burnout.

## **1.2 Dark triad and Emotional Intelligence**

Emotional intelligence as a construct is defined as an individual's capability to identify and regulate emotions in themselves and others. Due to the media induced popularisation of the subject, emotion intelligence has suffered a barrage of critique from much of the academic community (Zeidner, Matthews, & Roberts, 2004). The majority of the issues are focused on the measurement of the construct. As a result, two divergent paths have appeared, one that focuses on ability EI and another that focuses on trait EI. Ability EI assesses emotional intelligence using maximum performance, which is the same method as the majority of cognitive ability tests. However, this method has received some critique around the scoring methodology and what constitutes a correct response. Additionally, ability EI measures have been shown to have little relationship with work outcomes such as job performance (O'Boyle et al., 2010).

Trait EI is assessed through self-report and the items assess an individual's perceptions of their behaviour, attitudes and emotional abilities. It is often described as a constellation of lower level personality facets that predict a capacity for emotional intelligence. The sampling domain of trait emotional intelligence includes facets such as

emotion perception, emotion management, emotion regulation, empathy, and stress management (Petrides & Furnham, 2001). Currently, there is not an overabundance of research papers that have examined the relationship between emotional intelligence and dark personality. Furthermore, only a handful (such as Austin, Saklofske, Smith, & Tohver, 2014) have examined an interaction relationship between the variables.

Research investigating the relationship between emotional intelligence and the Dark Triad has primarily focused on whether emotional intelligence enables individuals high in the Dark Triad to emotionally manipulate individuals for their own gain (such as: Austin, Farrelly, & Black, Moore, 2007; Austin et al. 2014; Kilduff, Chiaburu, & Menges, 2010; Nagler, Reiter, Furtner, & Rauthmann, 2014; O'Connor & Athota, 2013). This potential dark side of EI is when individuals with high emotional intelligence use their ability to recognize and manage emotions in others for non-prosocial goals, such as self-interest (Austin et al., 2007).

Research using the managing the emotions of others scale (MEOS: Austin & O'Donnell, 2013; Austin et al., 2014) has found that the Dark Triad of personality relates positively with the non-prosocial aspects of managing emotion of others, specifically the factors worsen and inauthentic. These factors describe behaviour that utilises strategies that criticize and undermine the mood of others as well as inducing guilt and sulking. The Dark Triad traits were also found to have significant negative correlations with the prosocial factors of the MEOS: enhance and divert. These factors encompass behaviour that is helpful in relieving painful emotions and providing support or diversion behaviours, like humour, that help individuals by diverting their attention. Additionally, trait EI was found to correlate positively with the prosocial factors and negatively with the non-prosocial factors (Austin et al., 2014). The authors then investigated any potential mediating or moderating effects between trait EI and Agreeableness. The moderation analysis showed a significant interaction between trait EI and Agreeableness for the non-prosocial factors of MEOS. At high levels of Agreeableness, trait EI had a negative relationship between worsen and inauthentic but at low levels of Agreeableness trait EI was found to have a positive relationship with worsen and a non-significant relationship with inauthentic.

Although this study (Austin et al., 2014), investigated the moderation effects of trait EI with Agreeableness, it does provide a foundation for a potential moderation between trait EI and the Dark Triad traits, as Agreeableness is the core of these traits. Additionally, research examining the genetic and environmental influences on the Dark Triad and

emotional intelligence using twin data has found that EI provides a cushion against the negative aspects of the Dark Triad traits. Specifically, Petrides, Vernon, Schermer and Veselka (2011) found that Machiavellian and psychopathic tendencies were buffered by EI, and Narcissism had a significant positive correlation with EI. At the facet level the results showed some positive correlations between emotion management and Psychopathy, and a number of positive correlations between Narcissism, including emotion management, self-esteem, emotion perception and social awareness.

This combination of research suggests that individuals high in the Dark Triad traits who also have high levels of emotional intelligence are likely to use their ability to perceive and manage emotions in others for means that are antisocial rather than prosocial. However, the ability to perceive and manage emotions in themselves, from an intrapersonal perspective suggests that individuals high in the Dark Triad traits and high emotional intelligence will be better at self-regulating their emotions, which leads to emotional stability.

Research investigating the effects of emotional intelligence on burnout has found that EI reduces the likelihood of burnout (Lee & Ok, 2012; Mikolajczak, Menil, & Luminet, 2007). Additionally, emotional intelligence has been found to moderate the relationship between stress and burnout (Görgens - Ekermans & Brand, 2012). The authors found that the ability to effectively regulate emotions in oneself and others is specifically what protects those with high EI from burnout. Individuals with high emotional intelligence are less likely to experience burnout even if they experience stress.

Research has found that individuals tend to differ in their use of emotion regulation strategies. The two primary strategies are reappraisal and suppression. Reappraisal is when an individual changes how they think about an event that elicits emotion and has been found to be most effective for well-being. On the other hand, suppression is when an individual changes their behavioural response to an event that elicits emotion and has been found to be a less healthy emotion regulation strategy (Gross & John, 2003; John & Gross, 2004). A review and meta-analytic investigation of the literature on emotional intelligence and emotion regulation has found that individuals with high emotional intelligence tend to use more adaptive strategies, such as cognitive reappraisal and early interventions to shape their emotion trajectory (Peña-Sarrionandia, Mikolajczak & Gross, 2015). It is by this mechanism with which we expect emotional intelligence to moderate the Dark Triad traits.

Consequently, EI is expected to buffer against the negative effects of the Dark Triad traits, specifically Secondary Psychopathy and Machiavellianism on burnout. Furthermore, EI is expected to amplify the beneficial effects of Primary Psychopathy and Narcissism on burnout. To clarify, a negative/detrimental effect on burnout is one that increases burnout and a positive/beneficial effect is one that decreases burnout. To summarise, emotional intelligence will moderate the relationship between the Dark Triad traits: Primary Psychopathy (**H2a**), Secondary Psychopathy (**H2b**), Machiavellianism (**H2c**) and Narcissism (**H2d**) and burnout.

### **1.3 Dark triad and Resilience**

Resilience is related to an individual's ability to recover from a negative or stressful event. Some individuals, who are believed to have high levels of resilience, draw strength from adverse life events (Luthar, Cicchetti, & Becker, 2000). In contrast to emotional intelligence, which impacts an individual's emotion regulation during a stressful work event, resilience impacts how an individual adapts after the stressful work event.

Some papers have examined the relationship of the Dark Triad traits with psychological hardiness or mental toughness, which are related to resilience. Some authors have posited that the relationship between the Dark Triad and resilience may explain how individuals with the Dark Triad traits have achieved success in the workplace (Onley, Veselka, Schermer, & Vernon, 2013). Others have suggested that the associations between resilience and Psychopathy may buffer individuals from the adverse impact of chronic stress on mental health (Anestis, Harrop, Green, & Anestis, 2017; Sandvik et al., 2015).

In their adult twin study, Onley et al. (2013) found that Narcissism positively correlated significantly with all the underlying factors of mental toughness and Psychopathy was found to have significant negative correlations with the factors of mental toughness. However, Machiavellianism was found to have significant positive correlations with two of the factors of mental toughness: commitment and control, and negative correlations with the other two factors: challenge and confidence. Although the authors used separate assessments for each of the Dark Triad traits, they failed to separate Primary Psychopathy from Secondary Psychopathy.

Some studies have investigated Primary Psychopathy and Secondary Psychopathy separately, in relation to psychological hardiness (Sandvik et al., 2015) and reduced



development of post-traumatic stress disorder (Anestis et al., 2017), and have theorised that these two factors of Psychopathy can have divergent effects on an individual's ability to experience stressful situations without the negative effects on well-being. Sandvik et al. (2015) found Primary Psychopathy had an indirect negative effect on anxiety through the commitment factor of psychological hardiness but Secondary Psychopathy had an indirect positive effect on anxiety through commitment. The authors concluded that their findings could explain why the stress of incarceration may affect individuals differently.

On the other hand, Anestis et al. (2017) found in their sample of combat veterans that both Primary and Secondary Psychopathy offered some protection against the development of post-traumatic stress disorder (PTSD). At high levels of Primary Psychopathy the relationship between combat experience and development of PTSD was not significant. Although, the relationship between combat experience and PTSD was significant at all levels of Secondary Psychopathy, the strength of that relationship decreased at high levels of PTSD. The authors conclude that both factors of Psychopathy could in some way provide resilience to PTSD.

It is hypothesised that resilience will moderate the relationship between the Dark Triad traits: Primary Psychopathy (**H3a**), Secondary Psychopathy (**H3b**), Machiavellianism (**H3c**) and Narcissism (**H3d**) and burnout.

## **2. Method**

### **2.1 Participants**

The sample consisted of 232 individuals (47% females;  $M_{age} = 30.60$ ,  $SD_{age} = 9.60$ ). In terms of education, 1.3% had a GCSE level education, 9.5% A-Levels, 24.6% had some university, 41.4% had a university degree and 23.2% had a postgraduate qualification.

### **2.2 Measures**

1. *Psychopathy*: Psychopathy was measured using the Levenson Self-Report Psychopathy Scale (LSRP; Levenson et al., 1995). In this study the Cronbach's alphas for the LSRP total, Primary Psychopathy and Secondary Psychopathy were: .89, .91 and .72 respectively.
2. *Narcissism*: Narcissism was measured using the NPI-16 (Ames, Rose, & Anderson., 2006). The Cronbach's alpha for this scale in this study was .71.

3. *Machiavellianism*: Machiavellianism was measured using the MPS (Dahling, Whitaker, & Levy, 2009). In this study the Cronbach's alpha for the entire 16-item scale was .86.
4. *Self-Monitoring*: Self-monitoring was measured with the 18-item scale developed by Snyder and Gangestad (1986). In this study the Cronbach's alpha for self-monitoring was .75. Self-monitoring was included as control variable in this study as previous research (Bono & Vey, 2007) has shown that high self-monitors may experience less stress when expressing emotions or engaging in emotional labour, which may reduce the likelihood of them potentially experiencing burnout.
5. *Emotional Intelligence*: Emotional intelligence was assessed using the short form of the trait emotional intelligence questionnaire (TEIQue-SF; Petrides, 2009). In this study the Cronbach's alpha for trait emotional intelligence was .91.
6. *Resilience*: Resilience was assessed using the brief resilience scale (Smith et al., 2008) which consists of 6 items that were measured on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). In this study the Cronbach's alpha for the brief resilience scale was .90.
7. *Burnout*: Burnout was assessed using the Copenhagen Burnout Inventory (Kristensen, Borritz, Villadsen, & Christensen, 2005). Two of the three scales were used to assess personal burnout (6 items) and work burnout (7 items). Each item was scored on a 5-point Likert scale, for the personal burnout questions and 4 items from work burnout this ranged from 1 (Always) to 5 (Never). For the rest of the work burnout items it was 1 (To a very high degree) to 5 (To a very low degree). In this study the Cronbach's alphas for the personal burnout was .86 and for work burnout was also .86.

### **2.3 Procedure**

An online survey was created, and the link was distributed internally at a large consulting firm as well as being promoted on the board of a survey-taking group. Participants who had at least 2 years full-time work experience were asked to take part in this study. The only incentive provided to participants was their scores on various personality traits.

### **3. Results**

Due to the significant correlations between the Dark Triad traits, the other Dark Triad traits were entered as control variables alongside gender and age, when testing for moderation. The moderation analysis was performed using the PROCESS macro (Model

1) in SPSS developed by Hayes (2013). The effects of age, gender and self-monitoring were controlled for on the dependent variables (personal burnout and work burnout).

### **3.1 Descriptive statistics**

Table 1 shows the means, standard deviation and bivariate Pearson correlations for the variables in this study. The correlations between the Dark Triad traits were as expected: with the strongest correlation between Primary Psychopathy and Machiavellianism ( $r = .782, p < .000$ ) and the lowest correlation between Secondary Psychopathy and Narcissism ( $r = .192, p < .01$ ).

The correlations between the Dark Triad traits and resilience show a strong negative correlation between Secondary Psychopathy and resilience ( $r = -.311, p < .000$ ) but none of the other Dark Triad traits are significant. The correlation between Narcissism and resilience was positive and close to significance ( $r = .119, p = .071$ ).

As expected, resilience and emotional intelligence were correlated ( $r = .602, p < .000$ ), gender was not correlated with emotional intelligence but was significantly correlated with resilience ( $r = -.213, p < .01$ ). In line with previous research, there were some gender differences in the Dark Triad traits, specifically women scored lower on Primary Psychopathy, Machiavellianism, Narcissism and self-monitoring.

The correlations between both personal burnout and work burnout and the Dark Triad traits had a similar pattern. As expected Secondary Psychopathy and Machiavellianism had significant positive correlations,  $r = .359, p < .000$  and  $r = .131, p = .046$  for personal burnout respectively and  $r = .254, p < .000$  and  $r = .129, p < .050$  for work burnout, which supports **H1b** and **H1c**. The correlations between Primary Psychopathy ( $r = .056, p = .397$  and  $r = .042, p = .529$ ) and Narcissism ( $r = -.022, p = .741$  and  $r = -.068, p = .303$ ) and personal and work burnout were not significant. However, the effect was in the expected direction for Narcissism. Therefore, **H1a** and **H1d** were not supported.

### 3.2 Moderation Analysis

#### Personal and work burnout – EI and Resilience as moderators of Dark Triad traits.

For personal burnout, emotional intelligence and resilience moderated the effects of Primary Psychopathy,  $\Delta R^2 = .033, F(1, 219) = 11.588, p < .001$  for EI;  $\Delta R^2 = .015, F(1, 219) = 6.405, p = .012$  for resilience; and for both interactions  $\Delta R^2 = .033, F(2, 219) = 6.033, p = .003$ . The overall model statistics were good with the predictors explaining 43% of the variance. As expected, EI and Primary Psychopathy had significant main effects on personal burnout. The Primary Psychopathy predictor was negative, so increased Primary Psychopathy reduced burnout; this provides support for **H1a**. The main effect of resilience was not significant, but the predictor was in the expected direction: negative. Gender had a positive main effect on personal burnout, which highlights that women in this sample had greater burnout than men. No other variables were significant predictors of personal burnout in this model (see Table 2).

The significance of the interaction variables supports both **H2a** and **H3a**. However, the moderation effects of resilience were not in the expected direction, the interaction term was positive:  $b = .172, SE_b = .068, t = 2.531, p = .012$ . This means that as resilience increases, the effect of Primary Psychopathy becomes less negative or potentially positive, as in having a detrimental effect on burnout, which is not what was hypothesized. Resilience was expected to amplify the negative relationship between Primary Psychopathy and personal burnout rather than attenuate it as these findings show, so **H3a** was not supported. On the other hand, the interaction term between EI and Primary Psychopathy was in the expected direction: negative;  $b = -.253, SE_b = .074, t = -3.404, p < .001$ . At high levels of emotional intelligence, as Primary Psychopathy increases it reduces the level of burnout, supporting **H2a** that the effect of Primary Psychopathy would be moderated by EI.

Insert table2 here

Examining the conditional effects provides further support for emotional intelligence amplifying the beneficial relationship between Primary Psychopathy and personal burnout. The situation in which the moderators provide the greatest amplification is when resilience is low (1 standard deviation below the mean) and EI is high (1 standard deviation above the mean), this is the third row in Table 3. The effect of Primary Psychopathy is at its largest magnitude under these conditions:  $b = -.652$ ,  $SE_b = .139$ ,  $t = -4.679$ ,  $p < .000$ . At high resilience and low EI, the effect of Primary Psychopathy is positive and not significant:  $b = .085$ ,  $SE_b = .152$ ,  $t = .561$ ,  $p = .575$ .

Insert Table 3 here

For work burnout (see Table 2), emotional intelligence and resilience also moderated the effects of Primary Psychopathy,  $\Delta R^2 = .021$ ,  $F(1, 219) = 6.808$ ,  $p = .010$  for EI,  $\Delta R^2 = .018$ ,  $F(1, 219) = 5.907$ ,  $p = .016$  for resilience and for both interactions  $\Delta R^2 = .024$ ,  $F(2, 219) = 3.943$ ,  $p = .021$ . The overall model statistics were good, but the predictors did not explain as much variance as with personal burnout. For this model, only 32% of the variance was explained. Emotional intelligence and Primary Psychopathy had significant direct negative effects on work burnout. However, the negative effect of resilience was not significant. Gender was significant: women report higher work burnout than men. Age and the other Dark Triad traits were not significant similar to the results for personal burnout. However, self-monitoring was significant and, unexpectedly increased work burnout,  $b = .050$ ,  $SE_b = .013$ ,  $t = 3.825$ ,  $p < .000$ .

The moderation effects of EI and resilience on Primary Psychopathy and work burnout mirrored those found for personal burnout. EI amplified the beneficial effects of Primary Psychopathy but resilience attenuated them. The situation in which the moderators provide the most beneficial effect of Primary Psychopathy on work burnout is when resilience is low (1 standard deviation below the mean) and EI is high (1 standard deviation above the mean). Therefore, **H2a** was fully supported across both dependent variables and the effects were in the expected direction.

On the other hand, although resilience was found to moderate the effects of Primary Psychopathy, the effect was not in the expected direction, so **H3a** was not supported. Rather than resilience increasing the beneficial effects of Primary Psychopathy and reducing burnout, high resilience dampens them, making the negative effect of Primary Psychopathy non-significant.

For Secondary Psychopathy and personal burnout, the interaction between EI and Secondary Psychopathy, the interaction between resilience and Secondary Psychopathy and the

direct effect of Secondary Psychopathy were all not significant. For work burnout, none of the interaction terms with Secondary Psychopathy were significant. Therefore, **H2b** and **H3b** were not supported; Secondary Psychopathy was not moderated by either EI or resilience.

For personal burnout, emotional intelligence and resilience moderated the effects of Machiavellianism,  $\Delta R^2 = .024$ ,  $F(1, 219) = 8.012$ ,  $p = .005$  for EI,  $\Delta R^2 = .025$ ,  $F(1, 219) = 8.650$ ,  $p = .004$  for resilience and for both interactions  $\Delta R^2 = .032$ ,  $F(2, 219) = 5.612$ ,  $p = .004$ . The overall model statistics were good with the predictors explaining 43% of the variance ( $R^2 = .428$ ,  $F(11, 219) = 14.028$ ,  $p < .001$ ). Emotional intelligence and Primary Psychopathy,  $b = -.273$ ,  $SE_b = .095$ ,  $t = -2.889$ ,  $p = .004$ , had significant main effects on personal burnout. However, the main effect of resilience was in the expected direction but not significant. Gender was significant with females having higher levels personal burnout than males; no other variables were significant predictors of personal burnout in this model.

The interaction terms for Machiavellianism mirror those found for Primary Psychopathy, the EI interaction term is negative;  $b = -.217$ ,  $SE_b = .077$ ,  $t = -2.831$ ,  $p = .005$ , as expected but the resilience interaction is unexpectedly positive;  $b = .205$ ,  $SE_b = .070$ ,  $t = 2.411$ ,  $p = .004$ . Examining the conditional effects of Machiavellianism on personal burnout, at low resilience and high EI the effect is negative but not significant:  $b = -.292$ ,  $SE_b = .159$ ,  $t = -1.837$ ,  $p = .068$ . However, at high resilience and low EI the effect is positive and significant:  $b = .445$ ,  $SE_b = .151$ ,  $t = 2.949$ ,  $p = .004$ . High EI does offer some protective aspects to Machiavellianism, supporting **H2c**, that EI moderates the effects of Machiavellianism, but resilience appears to attenuate any benefits of Machiavellianism on personal burnout, therefore **H3c** is not supported. Although, resilience does moderate Machiavellianism it is in the opposite direction, it increases the detrimental effects of Machiavellianism on burnout rather than reducing them.

For work burnout, none of the interaction terms with Machiavellianism were significant. Therefore, only partial support for **H2c**, emotional intelligence as a moderator of Machiavellianism, was found and no support for **H3c** for resilience as a moderator of Machiavellianism.

For personal burnout and Narcissism, the interaction between Narcissism and emotional intelligence was significant,  $\Delta R^2 = .020$ ,  $F(1, 219) = 8.435$ ,  $p = .004$ , however the interaction between resilience and Narcissism was not significant  $\Delta R^2 = .009$ ,  $F(1, 219) = 3.566$ ,  $p = .060$ . The  $R^2$  change for both interactions was  $\Delta R^2 = .020$ ,  $F(2, 219) = 4.307$ ,  $p = .015$ . The overall model statistics were good with the predictors explaining 42% of the variance ( $R^2 = .416$ ,  $F(11, 219) = 14.489$ ,  $p < .001$ ). The interaction variable for EI and Narcissism was in the expected direction:  $b = -.060$ ,  $SE_b = .021$ ,  $t = -2.904$ ,  $p = .004$ , supporting **H2d**, that emotional intelligence reduces the

detrimental effects of Narcissism on burnout. At high levels of EI the effect of Narcissism is no longer significant, at low levels of EI Narcissism increases burnout.

For work burnout, none of the interaction terms with Narcissism were significant. Therefore, only partial support for **H2d**, that EI moderates the effects of Narcissism, was found and no support for **H3d**, that resilience moderates the effects of Narcissism on burnout.

A hierarchical regression was conducted to see which of the moderation effects at the trait level would remain significant when including the other significant interaction terms. In the final step, all of the significant interactions found above were included. The results showed that although the  $R^2$  change in the final step when the interaction terms are added is significant none of the interaction terms are significant. This suggests that no single trait of the Dark Triad is significantly moderated by emotional intelligence or resilience. However, when examining the collinearity statistics, the variation inflation factors suggested some overlap between the interaction terms,  $VIF > 4$  but less than 6. These findings suggest that the shared variance or the core of the Dark Triad might be moderated by emotional intelligence and resilience.

There are likely to be moderators that only influence what is unique about each Dark Triad trait but there are also going to be other moderators that influence what is shared by the Dark Triad traits. However, little previous literature has examined moderators of the Dark Triad core. In order to examine this theory a composite score of the Dark Triad was created using the standardized values of each trait. Standardised values were used because of the different scoring mechanisms between Narcissism and the other traits. With the composite score the moderation effects of emotional intelligence and resilience were analysed using the same method above. Age, gender and self-monitoring were included as control variables. Table 4 summarises the results of this analysis.

Insert table 4 here

For personal burnout, emotional intelligence and resilience moderated the effects of the Dark Triad total,  $\Delta R^2 = .025$ ,  $F(1, 222) = 9.799$ ,  $p = .002$  for EI,  $\Delta R^2 = .011$ ,  $F(1, 222) = 4.614$ ,  $p = .033$  for resilience and for both interactions  $\Delta R^2 = .025$ ,  $F(2, 222) = 5.324$ ,  $p = .006$ . The overall model statistics were good with the predictors explaining 40% of the variance ( $R^2 = .389$ ,  $F(8, 222) = 18.007$ ,  $p < .001$ ). Emotional intelligence and resilience had significant main effects on personal burnout in the expected directions, both variables reducing burnout. Gender had a main effect on personal burnout but the effects of age, self-monitoring and the Dark Triad total were not significant. The interaction terms mirrored those found at the trait level, negative for Dark Triad x EI and positive for Dark Triad x resilience. Figure 1 shows the moderation plots of EI, resilience

and the Dark Triad total and Figure 2 shows a pictorial representation of all of the results of this study.

Insert Figures 1 and 2 here

Figure 1 shows that at low levels of resilience and high levels of emotional intelligence, increasing levels of the Dark Triad reduce burnout. Whereas at high levels of resilience, high emotional intelligence has no effect; at low levels of emotional intelligence, increasing levels of the Dark Triad increase burnout.

#### **4. Discussion**

The results of this study show that the Dark Triad traits have a differential impact on personal burnout. Specifically, Primary Psychopathy was found to reduce an individual's level of burnout. However, Secondary Psychopathy and Machiavellianism were expected to increase burnout, and although the correlation results supported this, the regression models did not. Narcissism unexpectedly did not have any significant relationship with burnout. The results of Primary Psychopathy and Secondary Psychopathy are mostly in line with those studies that have examined these factors and psychological hardiness (Sandvik et al., 2015) and resistance to development of PTSD (Anestis et al., 2017).

The moderation effects of emotional intelligence on the Dark Triad traits and the Dark Triad total score were inline with expectations. High emotional intelligence appears to provide individuals with a buffer against negative effects of the Dark Triad traits but also amplifies the positive effects, such as reducing burnout. These findings align with previous research that has suggested the EI can buffer the negative aspects of the Dark Triad traits (Petrides, Vernon, Schermer, & Veselka, 2011). The moderation effects showed that at high levels of emotional intelligence the beneficial effects of Primary Psychopathy and Narcissism are amplified but the detrimental effects of Machiavellianism are attenuated. It is unclear whether emotional intelligence as a whole trait is creating this influence or whether its sub-factors are contributing. Machiavellianism is not associated with the absence of anxiety; therefore, the sub-factor of emotion regulation may help Machiavellians deal with the anxiety. However, anxiety is not correlated with Primary Psychopathy or Narcissism so this may not be the same mechanism by which emotional intelligence has an effect.



The focus on self is common to both Primary Psychopathy and Narcissism and if individuals are focused on their own needs they are more likely to look after themselves and also less likely to be concerned or stressed by others around them, therefore less likely to get burnt-out. Emotional intelligence, through the recognizing emotions in self sub-factor, may allow individuals with Primary Psychopathy and Narcissism to have greater self-awareness of the emotions or stress they might be experiencing, hence allowing them to focus on themselves before they show symptoms of burnout.

The contrarian moderation effects of resilience between the Dark Triad traits and burnout were unexpected. The main effects of resilience were in line with previous research (McCain, et al., 2017): increased resilience reduces burnout. However, resilience combined with Dark Triad traits seemed to increase burnout rather than reduce it even when the main effect of Primary Psychopathy was linked to decreased burnout. Several reasons could explain this finding such as methodology. The measure utilised for assessing resilience was a short measure consisting of only 6 items, a more extensive measure of workplace resilience (Winwood, Colon, & McEwen, 2013) may provide the expected results.

However, considering both moderation effects, the results of this study may potentially suggest that resilience and emotional intelligence are proxies to different types of emotion regulation strategies. The items of the brief resilience scale assess participants ability to quickly recover after hard times, but does not assess how that recovery takes place, i.e. the process of recovery, rather it focuses on speed of recovery. The speediest form of recovery could be to potentially suppress or ignore hard times. The use of suppression as an emotional regulation strategy has been found to negatively relate to well-being (Gross & John, 2003). On the other hand, emotional intelligence represents an emotion regulation strategy based on cognitive reappraisal, which has been found to positively relate to well-being. Research has shown that individuals differ in the emotion regulation strategies they adopt and these strategies can have divergent impact on well-being (Gross & John, 2003) but no research has investigated whether the interaction of EI, resilience and the Dark Triad traits lead to individuals adopting differing strategies of emotion regulation. Future research is needed to investigate the plausibility of this theory.

The lack of moderating effects of emotional intelligence and resilience on Secondary Psychopathy is likely due to the high correlation between these variables. Secondary Psychopathy was found to have  $r = -.614, p < .000$  with emotional intelligence and  $r = -.311, p < .000$  with resilience. Although most moderation results for personal burnout were significant, the interaction terms were largely not significant for work burnout. This may be due to the sample consisting of individuals with varied roles and from different industries. Some professions have been found to

have higher incidents of burnout such as medical professionals and teachers (Kumar, 2016; Watts & Robertson, 2011).

## **5. Limitations and Future Research**

This study was based on self-report data, which can be susceptible to common method variance, in order to further validate the findings future research should examine whether EI and resilience, as reported by others, moderates the relationship between the Dark Triad traits and well-being. Furthermore, gender differences were found for resilience, personal and work burnout and some of the Dark Triad traits. Future research should examine whether the moderating effects of EI on the Dark Triad traits is influenced by the gender of participants. Additionally, future research should use more extensive measures of resilience and emotional intelligence, with sub-factors, to further understand the processes underlying how these moderators may amplify the benefits of the Dark Triad traits and attenuate the detrimental effects of them on an individuals' level of well-being.

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**Table 1: Means, standard deviations and correlations for study variables**

	M	SD	1	2	3	4	5	6	7	8	9	10
1 Gender	1.47	.50										
2 Age	30.60	9.60	-.098									
3 Psych 1	2.35	.79	-.181**	-.172**								
4 Psych 2	2.79	.70	-.019	-.045	.399***							
5 Mach	2.84	.71	-.174**	-.216***	.782***	.410***						
6 Narc	4.04	2.93	-.150*	-.047	.434***	.192**	.481***					
7 SM	9.34	3.79	-.166*	-.087	.190**	.033	.222***	.371***				
8 EI	4.80	.82	-.020	.079	-.331***	-.614***	-.291***	.149*	.240***			
9 Resilience	3.30	.93	-.213**	.078	-.010	-.311***	-.048	.119	.099	.602***		
10 P Burnout	3.03	.77	-.221***	.095	-.056	-.359***	-.131*	.022	.049	.543***	.457***	
11 W Burnout	3.28	.80	-.215**	.076	-.042	-.254***	-.129*	.068	-.059	.425***	.383***	.723***

Note. \*p < .05. \*\*p < .01. \*\*\*p < .001, SM = Self-Monitoring, P Burnout = Personal Burnout, W Burnout = Work Burnout

**Table 2: Model testing moderation effects of EI and resilience on Primary Psychopathy and personal and work burnout**

	Personal Burnout						Work Burnout					
	b	SE	t	p	95% CI		b	SE	t	p	95% CI	
Gender	.259	.090	2.872	.004	.081	.436	.323	.101	3.194	.002	.124	.522
Age	-.003	.004	-.630	.529	-.011	.006	.001	.005	.133	.894	-.010	.011
SM	.022	.012	1.785	.076	-.002	.047	.050	.013	3.825	.000	.024	.076
EI	-.502	.099	-5.041	.000	-.698	-.305	-.427	.108	-3.952	.000	-.640	-.214
Resilience	-.088	.063	-1.403	.162	-.212	.036	-.075	.071	-1.062	.289	-.215	.064
Psych 1	-.284	.095	-2.993	.003	-.470	-.097	-.265	.107	-2.482	.014	-.475	-.054
Psych 2	.068	.079	.860	.391	-.087	.222	-.009	.095	-.091	.927	-.195	.178
Narc	.072	.112	.645	.519	-.149	.293	.189	.110	1.719	.087	-.028	.405
Mach	.026	.021	1.250	.213	-.015	.067	-.012	.021	-.559	.576	-.053	.029
Psych 1 x EI	-.253	.074	-3.404	.001	-.399	-.106	-.208	.080	-2.609	.010	-.365	-.051
Psych 1 x Resi	.172	.068	2.531	.012	.038	.307	.193	.080	2.430	.016	.037	.350
R <sup>2</sup>	.429						.320					
F	13.860***						10.921***					
Δ R <sup>2</sup>	.033						.024					
F	6.033**						3.943*					

Note. \*p < .05, \*\*p < .01, \*\*\*p < .001

**Table 3: Conditional effect of Primary Psychopathy on personal burnout at different levels of moderators**

Resilience level	EI level	P1 Effect	SE	t	p	95% CI	
<b>Low Resilience</b>	<b>Low EI</b>	<b>-.236</b>	<b>.112</b>	<b>-2.108</b>	<b>.036</b>	<b>-.456</b>	<b>-.015</b>
<b>Low Resilience</b>	<b>Average EI</b>	<b>-.444</b>	<b>.111</b>	<b>-4.015</b>	<b>.000</b>	<b>-.662</b>	<b>-.226</b>
<b>Low Resilience</b>	<b>High EI</b>	<b>-.652</b>	<b>.139</b>	<b>-4.679</b>	<b>.000</b>	<b>-.927</b>	<b>-.378</b>
Average Resilience	Low EI	-.075	.117	-.643	.521	-.306	.156
<b>Average Resilience</b>	<b>Average EI</b>	<b>-.284</b>	<b>.095</b>	<b>-2.994</b>	<b>.003</b>	<b>-.470</b>	<b>-.097</b>
<b>Average Resilience</b>	<b>High EI</b>	<b>-.492</b>	<b>.108</b>	<b>-4.546</b>	<b>.000</b>	<b>-.705</b>	<b>-.279</b>
High Resilience	Low EI	.085	.152	.561	.575	-.214	.384
High Resilience	Average EI	-.123	.117	-1.050	.295	-.354	.108
<b>High Resilience</b>	<b>High EI</b>	<b>-.331</b>	<b>.110</b>	<b>-3.024</b>	<b>.003</b>	<b>-.547</b>	<b>-.115</b>

Note. Conditional effects p < .05 in bold, and p < .10 in italics

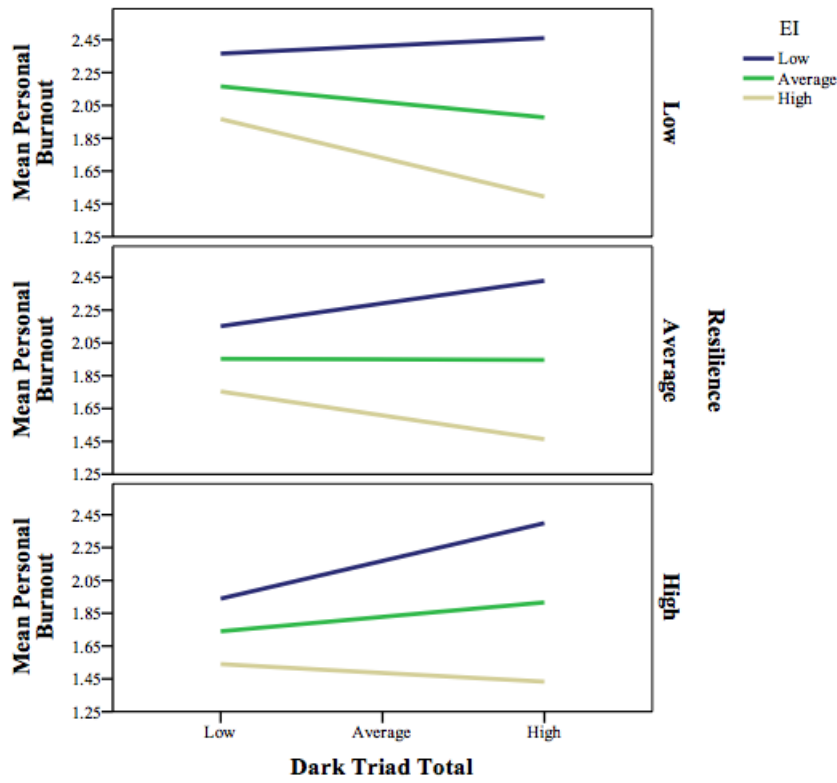


**Table 4: Moderation analysis of composite Dark Triad trait with EI and resilience on personal burnout**

	Personal Burnout					
	b	SE	t	p	95% CI	
Age	-.001	.004	-.267	.790	-.010	.007
Gender	.276	.088	3.125	.002	.102	.451
SM	.023	.013	1.793	.074	-.002	.048
Dark triad total	-.003	.052	-.064	.949	-.107	.100
EI	-.414	.072	-5.780	.000	-.556	-.273
Resilience	-.131	.064	-2.038	.043	-.258	-.004
Dark Triad Total x EI	-.168	.054	-3.130	.002	-.274	-.062
Dark Triad Total x Resilience	.096	.045	2.148	.033	.008	.184
R <sup>2</sup>	.389					
F	18.007***					
Δ R <sup>2</sup>	.025					
F	5.324**					

Note. \*p <.05, \*\*p <.01, \*\*\*p <.001

**Figure 1: Graph of moderation effects of EI and resilience on Dark Triad total and personal burnout**



**Figure 2 Pictorial representation of Dark Triad effects on personal and work burnout and moderating effects of emotional intelligence and resilience**

