



# Working in the Dark? Exploring the Relationship Between the Dark Triad and Early Maladaptive Schemas

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## Abstract

Early maladaptive schemas (EMS) may contribute to the Dark Triad's (i.e., Machiavellianism, narcissism, psychopathy) dysfunctional workplace outcomes. EMS — the core concept of Schema Therapy — are entrenched emotional, cognitive, memories, and physiological patterns that form during early life in response to unmet needs and elaborate throughout life. As the workplace can involve hierarchy and power, EMS may be potentially reinforced in this context. This novel study aimed to explore the relationships between EMS and the Dark Triad facets within a working sample. The study also examined whether the Dark Triad facets yield distinct relationships with EMSs. The sample ( $N=210$ ) reported working  $\geq 20$  h per week in paid- or full-time role in private and public sectors. Participants completed an online self-report survey comprising the Young Schema Questionnaire Short Form-Third Edition, Five Factor Narcissism Inventory-Short Form (Antagonism and Extraversion facets), Five Factor Machiavellianism Inventory (Planfulness, Antagonism and Agency facets), and Corporate Psychopathy Inventory-Revised (Boldness, Ruthlessness, and Interpersonal Dominance facets). Zero-order correlations indicated that all Dark Triad facets significantly and positively correlated with the Entitlement/Grandiosity, Unrelenting Standards, and Punitiveness EMSs. Most Dark Triad facets positively correlated with Approval/Recognition Seeking and Mistrust/Abuse EMSs. The Entitlement/Grandiosity EMS demonstrated the strongest positive correlation with most Dark Triad facets. The results suggest that those with elevated Dark Triad traits in the working sample share a similar cognitive and emotional worldview (i.e., EMS) that may activate in the workplace context. Expanding this research could inform a 'Dark' Schema Workplace model and Schema Therapy interventions to potentially reduce the Dark Triad's dysfunctional workplace outcomes.

**Keywords** Dark Triad traits · Early maladaptive schemas · Workplace · Dysfunctional workplace attitudes

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## Background

The ‘Dark Triad’ have been described as a trio of aberrant personality traits: Machiavellianism, narcissism, and psychopathy (Paulhus & Williams, 2002). Machiavellianism is an interpersonal style fuelled by cynicism, deception, and strategic planning to execute self-benefitting motives (Christie & Geis, 1970). Narcissism is marked by egotistical self-admiration, gratification from vanity, acclaim-seeking, and a desire for power (Turner & Webster, 2018). Psychopathy is characterized by superficial charm, antisocial behaviour, grandiosity, and a lack of empathy and conscience (Williams et al., 2007). These intersecting yet unique traits have gained traction in the organizational literature (Braun, 2017; Furnham et al., 2013; Jonason et al., 2015; Miller et al., 2019).

The literature has revealed the Dark Triads’ potential impact on organizations. Machiavellian traits have been linked to workplace bullying (Valentine & Fleischman, 2018), controlling behaviours (Jones & Paulhus, 2017), subordinates’ emotional exhaustion, and organizational cynicism (Ruiz-Palomino et al., 2019). Managers have rated employees with narcissistic traits as having poor task performance (Smith et al., 2016). Elevated psychopathic traits positively predicted counterproductive workplace behaviours (Nawaz et al., 2018) and workplace bullying (Holland, 2019). The Dark Triad may be more inclined to wreak havoc in the workplace as hierarchy and power exist in this context.

The methodology employed in Dark Triad and organizational literature has received several criticisms. First, Miller et al. (2019) reported that 85% of studies examined the Dark Triad as a total score. Reducing the Dark Triad to a singular construct can conceal unique data about each trio member (Ackerman et al., 2011). Second, Fritzon et al. (2016) highlight that questionnaires used in organizational research are often confounded to criminal or antisocial behaviours and may be inapt for identifying the Dark Triad in the workplace. Third, Trahair et al. (2020) argue that studies have employed measures that primarily examine the ‘brighter side’ of narcissism (i.e., NPI-40), which is problematic as Antagonistic Narcissism has stronger links to psychopathy and Machiavellianism. Finally, Dark Triad research has focused on workplace outcomes and moderating factors that increase workplace dysfunction (Mushtaq & Rohail, 2021; Ying & Cohen, 2018). This has led to little study about the potential antecedents of the Dark Triad’s dysfunctional workplace outcomes.

## Early Maladaptive Schemas and the Dark Triad Traits

Early maladaptive schemas (EMS), the central concept of Schema Therapy (Young et al., 2003), may offer value for understanding what underlies the maladaptive attitudes and behaviours held by the Dark Triad in the workplace. Young et al. (2003) define EMS as dysfunctional emotional, cognitive, and physiological patterns derived from an interplay between temperament, toxic early

experiences, as well as cultural influences and continues to elaborate throughout life. Young et al. (2003) propose that EMS underlie personality pathology and identified 18 EMS. Research has supported a four-higher-order EMS domain as most appropriate when considering the empirical structure and theoretical coherence of the 18 EMSs (Bach et al., 2018; Hoffart et al., 2005). See Table 1 for descriptors of early maladaptive schemas and associated four domains.

Young et al. (2003) proposed that toxic childhood experiences are the main roots of EMS. As EMSs capture representations of recurring adverse early experiences, they become bias and distorted in situations outside of the early environment that can appear EMS-congruent (Brockman et al., 2023). EMS mostly operate at the unconscious level and become self-perpetuating because of selective attention, confirmation bias, and habitual patterns (Young et al., 2003). This infers that EMSs can evolve and are reinforced throughout adulthood and can become destructive and impairing to one's life (Young et al., 2003). A large contributing factor to the perpetuation of EMSs is believed to be the individual's acquired strategies for coping with EMS (Young et al., 2003).

It is hypothesized that behaviours develop as a coping or preventative response to EMS activation (Young et al., 2003). The three major EMS coping styles are *Surrender* (accepting and behaving as if the EMS is true, etc.), *Avoidance* (psychologically or behaviourally distancing from the EMS, etc.) and *Overcompensation* (acting as if the opposite of the EMS is true, etc.; Young et al., 2003). Although these coping behaviours initially develop as an attempt to aid the child to cope with deprivation of core emotional needs, they become maladaptive in later life and perpetuate the EMS (Young et al., 2003). This is because coping styles block information that contradicts and may disprove the EMS, subsequently inhibiting core emotional needs from being fulfilled (Brockman et al., 2023).

Young et al. (2003) propose that EMS are central to personality pathology and that consequences — such as dysfunctional workplace attitudes and behaviours — can be understood by which EMSs and coping styles are activated. Bamber and Price (2006) proposed that employees with more rigid and severe EMS may re-enact their EMS and associated maladaptive coping styles in the workplace. Research related to employees within the healthcare profession (Bamber & McMahon, 2008; Simpson et al., 2019) has provided some support for this hypothesis. This suggests that the Schema Therapy model may be valuable to consider within organizational and Dark Triad literature. A literature review, however, has uncovered no studies identifying the EMS associated with Dark Triad facets within a working sample. Instead, EMS and Dark Triad traits have been examined with students (Kim, 2020; Lång, 2015; Torres, 2002; Vaizidis & Wismeijer, 2017), community (Louis et al., 2022) and forensic samples (Carvalho & Nobre, 2014; Chakhssi et al., 2013, 2014; Daffern et al., 2016). As the workplace can contain matters of power, control, and hierarchy (Bamber & McMahon, 2008), the EMS of those with Dark Triad traits may be activated and reinforced in this context. Therefore, establishing the EMSs associated with the Dark Triad facets within a working population is necessary.

**Table 1** Descriptors of early maladaptive schemas and associated four domains

Schema domain	Brief description
<b>Disconnection and Rejection</b>	
Emotional Deprivation	A belief that others will not adequately meet one's desire for a normal degree of emotional support and care.
Mistrust/Abuse	An expectation of being abused, mistreated, or cheated by others.
Defectiveness/Shame	The belief that one is defective, unworthy, inferior, or inadequate.
Social Isolation/Alienation	A belief in being different and isolated from the world, communities, groups, or people.
Emotional Inhibition	A belief that one must inhibit spontaneous action, feelings, or impulses to avoid shame, disapproval or losing control.
Negativity/Pessimism	The pervasive lifelong focus on the negative aspects of life while minimising positive aspects.
<b>Impaired Autonomy and Performance</b>	
Dependence/Incompetence	A belief of being incompetent in tackling daily tasks without help. Believes considerable help from others is required.
Vulnerability to Harm or Illness	A belief that imminent catastrophe can strike, and nothing can be done to prevent it.
Enmeshment/Undeveloped Self	A belief that excessive emotional involvements and closeness with significant others are necessary.
Failure	An expectation of inevitably failing or being inadequate in areas of achievement and performance compared to one's peers.
Subjugation	A belief that one must surrender control to others as one feels coerced. Can involve beliefs that one's emotions and needs should be suppressed, to avoid anger, retaliation, or abandonment.
Abandonment/Instability	A belief that others will not continuously provide emotional support, connection, or protection.
<b>Excessive Responsibility and Standards</b>	
Unrelenting Standards/Hypercriticalness	A belief that one must meet unrealistic internal standards of behaviour and performance to avoid criticism.
Punitiveness	The belief that there should be harsh punishment for making mistakes.
Self-Sacrifice	A belief that one must voluntarily meet the needs of others at the expense of their own.
<b>Impaired Limits</b>	
Entitlement/Grandiosity	A belief of being superior, entitled to special rights and not bound by the normal rules of social reciprocity. Can include a focus on attaining power.
Insufficient Self-Control/Self Discipline	A pervasive difficulty exercising self-control and -discipline to achieve goals or to restrict excessive expression of emotions and impulses.
Approval-Seeking/Recognition Seeking	An excessive need to gain approval, recognition, or attention from others. There can be an emphasis on status, appearance, social acceptance, money, and achievement.

Adapted from Bach et al. (2018)

## The Current Study

This study is exploratory and aims to investigate the application of the Schema Therapy model to the Dark Triad facets within a working population. The study aims to establish the cognitive and emotional patterns (i.e., EMSs) held by those with elevated Dark Triad traits in a working sample (Baheer et al., 2023; Mahmood et al., 2021). This study also attempts to address criticisms in the literature by recognizing the Dark Triad as a multidimensional construct and employing measures appropriate for examining the Dark Triad in a workplace context. This represents a novel contribution to the research literature, which has not yet examined the EMSs of those with Dark triad traits at the *facet* level in a working sample. This study explores the following questions:

- (i) Which EMS correlate with the three facets of Machiavellianism (i.e., Agency, Planfulness and Antagonism), as measured by the Five-Factor Machiavellianism Inventory (FFMI; Collison et al., 2018)?
- (ii) Which EMS correlate with the two facets of Narcissism (i.e., Agentic Extraversion and Antagonism), as measured by the Five-Factor Narcissism Inventory-Short Form (FFNI-SF; Sherman et al., 2015)?
- (iii) Which EMS correlate with the three facets of corporate psychopathy (i.e., Ruthlessness, Interpersonal Dominance, and Boldness), as measured by the Corporate Personality Inventory–Revised (CPI-R; Fritzon et al., 2016).
- (iv) Do the Dark Triad facets exhibit unique and discernible correlations with specific EMSs?

## Method

### Participants and Procedure

Ethical clearance was obtained from the Bond University Human Research Ethics Committee in 2020 (Project Number: 00213), and the Participant Research pool granted permission to conduct research. A recruitment advertisement containing a Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)) link was posted to social media platforms and a Participant Research Pool. The Qualtrics link redirected participants to the explanatory statement containing the survey's aims and approximated 90-min completion time. All 441 respondents provided their informed consent to participate in the study.

The 331 participants fulfilling the inclusion criteria indicated they were  $\geq 18$  years old, working in paid- or full-time employment, and working  $\geq 20$  h per week. 'Employment' was extended to respondents receiving Job Keeper payments or whose working hours were affected due to the Australian Government COVID-19 restrictions. Participants were assigned a unique ID to maintain anonymity and completed a demographic questionnaire and randomized assessment package detailed in the 'measures' section. Upon survey completion, participants could enter a raffle to receive one of five \$80.00 gift cards. Cases were excluded if gender ( $n=17$ ), age ( $n=21$ ), or one or more measures were incomplete ( $n=78$ ).

The final working sample from public and private sectors ( $N=210$ ) reported a mean age of 36.61 ( $SD=11.83$ ), with a minimum of 19 years and a maximum of 63 years. Most of the sample indicated that they were cisgender female (47.62%), Australian (Non-Aboriginal; 39.52%), and held an Undergraduate University Degree (33.33%). Most of the sample also reported being employed in Information Technology (15.71%), followed by Hospitality and Tourism (12.38%) and Marketing, Sales, and Service (10.48%). The sample mainly reported a job tenure of 1 to 5 years (41.43%) and being employed in roles without supervisory responsibility (44.29%). Table 2 displays the sample's demographic characteristics.

## Measures

A demographic questionnaire collected data about gender, age, marital status, ethnicity/race, highest education level completed, job category, organization type, level of supervisory responsibility, and job tenure.

EMS were examined using the *Young Schema Questionnaire - Short Form, Third Edition* (YSQ-S3; Young and Brown (2005)). The YSQ-S3 examines 18 EMS: Emotional Deprivation, Abandonment/Instability, Mistrust/Abuse, Defectiveness/Shame, Social Isolation/Alienation, Failure, Enmeshment/Undeveloped Self, Vulnerability to Harm, Dependence/Incompetence, Approval/Recognition-Seeking, Subjugation, Self-Sacrifice, Unrelenting Standards/Hyper-criticalness, Emotional Inhibition, Negativity/Pessimism, Punitiveness, Entitlement/Grandiosity, and Insufficient Self-Control/Self-Discipline. Respondents rate how accurately 90 statements apply to them over the last year using a six-point Likert scale that ranges from 1 = 'Completely Untrue of Me' to 6 = 'Describes Me Perfectly'. EMS subscales are scored by calculating the mean, with higher scores suggesting higher levels of the EMS. The YSQ-S3 has yielded good test-retest reliability (Calvete, Orue & Gonzelaz-Diez, 2013) and adequate internal consistency and factorial validity across the 18 subscales (Bach et al., 2017). YSQ-S3 subscale coefficients in this study ranged from good to excellent  $\alpha=0.75$  to  $\alpha=0.91$ .

The 52-item self-report *Five Factor Machiavellianism Inventory* (FFMI; Collison et al., 2018) was employed to examine Machiavellianism facets. The FFMI is based on the Five-Factor model personality framework (Costa Jr & McCrae, 1992) and was devised by drawing on expert ratings of Five Factor Model profiles based on the Machiavellian prototype (Miller et al., 2017). The FFMI requires respondents to rate a five-point Likert scale ranging from 1 = 'Disagree Strongly' to 5 = 'Strongly Agree'. The 13 FFMI subscales contain four items each and load onto three factors: (i) Agency (i.e., an inclination to achieve and be competent, assertive, invulnerable, self-confident, and active), (ii) Planfulness (i.e., a tendency to deliberate and prioritize order), and (iii) Antagonism (i.e., a tendency to be selfish, manipulative, immodest, callous, and cynical). The FFMI measures Machiavellianism's antagonistic, strategic, and goal-oriented aspects (Grabovac & Dinić, 2022) and has demonstrated construct validity (Kückelhaus et al., 2021). This study observed Chronbach's  $\alpha=0.88$  for Antagonism,  $\alpha=0.95$  for Agency, and  $\alpha=0.79$  for Planfulness.

**Table 2** Demographic Characteristics of the Sample

	<i>N</i>	%
<b>Gender</b>		
Cisgender Male	98	46.667
Cisgender Female	100	47.619
Non-binary	8	3.810
Transgender Male	1	0.476
Transgender Female	3	1.429
<b>Ethnic Background</b>		
Australian (Non-Aboriginal)	83	39.524
Torres Strait or Aboriginal	3	1.429
New Zealand	5	2.381
Pacific Islander	3	1.429
Asian	48	22.857
European Country	39	18.571
North American	10	4.762
South American	1	0.476
South African	2	0.952
Other	16	7.619
<b>Highest Qualification</b>		
Secondary Education: Year 10	1	0.476
Secondary Education: Year 11	6	2.857
Secondary Education Year 12 (VCE)	30	14.286
Certificate	24	11.429
Advanced Diploma/Diploma	28	13.333
Undergraduate Degree	70	33.333
Graduate Diploma/Graduate Certificate	14	6.667
Post Graduate Degree	29	13.810
Other	8	3.810
<b>Supervisory Responsibility</b>		
None	93	44.286
Supervisor	43	20.476
Team Leader	22	10.476
Manager	21	10.000
Executive	13	6.190
Partner or Owner	17	8.095
<b>Occupation Category</b>		
Agriculture, Food, and Natural Resources	6	2.857
Architecture and Construction	10	4.762
Arts, Audio/Video Technology, and Communications	7	3.333
Business Management and Administration	10	4.762
Education and Training	15	7.143
Finance	7	3.333
Government and Public Administration	10	4.762

**Table 2** (continued)

	<i>N</i>	%
Health	18	8.571
Hospitality and Tourism	26	12.381
Human Services	12	5.714
Information Technology	33	15.714
Law, Public Safety, Corrections, and Security	5	2.381
Manufacturing	5	2.381
Marketing, Sales, and Service	22	10.476
Science, Technology, Engineering, and Mathematics	10	4.762
Transportation, Distribution, and Logistics	4	1.905
Other	10	4.762
Job Tenure		
Less Than 6 Months	18	8.571
6 Months to 1 Year	26	12.381
1 to 5 Years	87	41.429
6 to 10 Years	25	11.905
11 to 15 Years	20	9.524
16 to 20 Years	9	4.286
21 to 25 Years	11	5.238
More than 25 Years	13	6.190

Demographic characteristics of the sample ( $N=210$ ). % = percentage of participants in each group

The 60-item *Five Factor Narcissism Inventory-Short Form, FFNI-SF* (Sherman et al., 2015) assessed narcissistic facets. The FFNI-SF is based on the Five-Factor Model framework (Costa Jr & McCrae, 1992) and has evolved from the original validated 148-item Five-Factor Narcissism Inventory (Glover et al., 2012). The FFNI-SF is a valid and reliable measure devised in response to criticisms that the FFNI was too long (Sherman et al., 2015). The 15 subscales of the FFNI-SF can be grouped into a three-factor structure: (i) Antagonism (i.e., manipulative, exploitive, entitled, unemphatic, arrogant, distrustful, thrill-seeking and possess reactive anger), (ii) Agentic Extraversion (i.e., grandiose fantasies, exhibitionism, acclaim seeking, and authoritativeness), and (iii) Neuroticism (i.e., prone to shame, a need for admiration, and indifference; Sherman et al., 2015). Antagonism is characteristic of grandiose and vulnerable narcissism, whereas Agentic Extraversion is specific to grandiose narcissism (Weiss & Miller, 2018). This study did not administer the Neuroticism subscale as it is specific to vulnerable narcissism (Sherman et al., 2015). The FFNI-SF yields acceptable reliability and validity (Sherman et al., 2015) and very good internal consistency (Crowe et al., 2018). Respondents rate how accurately the 60 statements apply to them, using a five-point Likert scale from 1 = 'Disagree Strongly' to 5 = 'Agree Strongly'. Alpha coefficients were  $\alpha=0.95$  for Antagonism and  $\alpha=0.94$  for Agentic Extraversion.

The 58-item self-report *Corporate Personality Inventory-Revised, CPI-R* (Fritzon et al., 2016) measured Corporate psychopathic facets. The CPI-R comprises a



three-factor structure: (i) Ruthless (i.e., a tendency to be self-centred, competitive, and spiteful), (ii) Boldness (i.e., a proneness toward self-promotion, confidence, and outward forwardness) and (iii) Interpersonal Dominance (i.e., an inclination toward meanness, low concern for others, and planned irresponsible or exploitive behaviours; Fritzon et al.). A four-point Likert scale response is employed, ranging from *Very False* (=1) to *Very True* (=4) and scores are obtained by summing all items on the corresponding scale (Ruthless range=15 to 60; Boldness range=31 to 124; Interpersonal Dominance range=12 to 48). Higher scores suggest elevated levels of the facet. Fritzon et al. reported the inter-item consistency ranges of the CPI-R as good to very good: Interpersonal Dominance ( $\alpha=0.73$ ), Ruthless ( $\alpha=0.76$ ), and Boldness ( $\alpha=0.88$ ) subscales. This study observed very good Cronbach's alpha coefficients: Interpersonal Dominance ( $\alpha=0.89$ ), Ruthless ( $\alpha=0.92$ ), and Boldness ( $\alpha=0.96$ ).

### Statistical Analyses

Data analyses were performed with IBM SPSS Statistics (Version 28). Little's MCAR test was insignificant,  $\chi^2 = 1756.178$ ,  $p = .652$ , indicating that missing data were missing completely at random (Little, 1988). Missing data were identified and mean substituted and four univariate outliers exceeding 3.29 standard deviations were also identified and removed ( $p < 0.001$ , two-tailed test; Tabachnick & Fidell, 2013). A priori power analysis was employed using G\*Power Software Version 3.1 (Faul et al., 2009) which determined a minimum of 84 participants would be needed based on a desired statistical power of 0.80 and an alpha level of 0.05. The final working sample from public and private sectors ( $N=210$ ). A Bonferroni-corrected significance level was applied (alpha level=0.002). Table 3 displays Zero-order Pearson correlation coefficients between gender, age and the 18 EMSs, FFMI (Planfulness, Agency and Antagonism), FFNI-SF (Agentic Extraversion and Antagonism), and CPI-R (Interpersonal Dominance, Boldness, and Ruthlessness) facets. Zero-order correlation results are presented in Table 3.

### Discussion

This study is the first to explore the application of the Schema Therapy model (i.e., EMS) to the Dark Triad facets within a working sample. It also attempted to address criticisms in the literature by recognizing the Dark Triad as a multidimensional construct and employing measures appropriate for examining the Dark Triad in a workplace context. The sample reported being employed in paid- or full-time roles and working  $\geq 20$  h per week and employed in public and private work sectors. The study's research questions asked which EMSs were correlated with Machiavellianism facets (FFMI Agency, Antagonism, and Planfulness), narcissism facets (FFNI-SF Agentic Extraversion and Antagonism), and corporate psychopathy facets (CPI-R Ruthlessness, Interpersonal Dominance, and Boldness); and whether Dark Triad facets exhibit unique and discernible correlations with specific EMSs. Exploring these

Table 3 Zero-order Pearson correlation coefficients

	FFMI facets			CPI-R facets			FFNI facets		
	Agency	Antagonism	Planfulness	Int Dom	Ruthlessness	Boldness	Antagonism	Extraversion	
Gender	-0.18	-0.14	-0.06	-0.23**	-0.15	-0.20	-0.17	-0.18	
Age	0.11	-0.15	0.12	-0.04	0.08	0.11	-0.06	-0.09	
FFMI Agency	-								
FFMI Antagonism	0.48**	-							
FFMI Planfulness	0.47**	0.08	-						
CPI-R Interpersonal Dominance	0.60**	0.80**	0.18**	-					
CPI-R Ruthlessness	0.58**	0.49**	0.42**	0.64**	-				
CPI-R Boldness	0.86**	0.51**	0.36**	0.66**	0.67**	-			
FFNI-SF Antagonism	0.56**	0.83**	0.05	0.83**	0.54**	0.64**	-		
FFNI-SF Extraversion	0.79**	0.58**	0.29**	0.69**	0.62**	0.81**	0.73**	-	
Emotional Deprivation	-0.58**	-0.19	-0.30**	-0.29**	-0.36**	-0.53**	-0.20	-0.50**	
Abandonment/Instability	-0.61**	-0.32**	-0.38**	-0.35**	-0.38**	-0.52**	-0.23**	-0.40**	
Mistrust/Abuse	0.08	0.43**	0.11	0.38**	0.40**	0.21*	0.51**	0.31**	
Defectiveness/Shame	-0.67**	-0.14	-0.44**	-0.29**	-0.46**	-0.60**	-0.19	-0.50**	
Social Isolation/Alienation	-0.61**	-0.05	-0.26**	-0.22**	-0.26**	-0.47**	-0.13	-0.39**	
Failure	-0.65**	-0.19	-0.51**	-0.28**	-0.44**	-0.59**	-0.21**	-0.48**	
Dependence/Incompetence	-0.64**	-0.19	-0.48**	-0.28**	-0.52**	-0.64**	-0.21**	-0.47**	
Vulnerability to Harm/Illness	-0.11	0.17	0.07	0.25**	0.29**	0.00	0.26**	0.14	
Enmeshment/Development Self	-0.14	0.01	-0.12	0.09	0.04	-0.08	0.12	0.08	
Subjugation	-0.63**	-0.27**	-0.30**	-0.24**	-0.27**	-0.49**	-0.16	-0.59**	
Self-Sacrifice	-0.17	-0.47**	0.06	-0.32**	-0.04	-0.07	-0.29**	-0.09	
Approval/Recognition Seeking	0.44**	0.59**	0.14	0.60**	0.48**	0.45**	0.69**	0.66**	
Emotional Inhibition	-0.66**	-0.17	-0.37**	-0.35**	-0.46**	-0.61**	-0.25**	-0.58**	
Unrelenting Standards	0.51**	0.40**	0.47**	0.47**	0.61**	0.57**	0.45**	0.65**	

Table 3 (continued)

	FFMI facets		CPI-R facets		FFNI facets			
Negativity/Pessimism	-0.04	0.27**	0.12	0.27**	0.35**	0.28**	0.20	
Punitiveness	0.23**	0.22**	0.33**	0.34**	0.42**	0.31**	0.37**	
Entitlement/Grandiosity	0.64**	0.67**	0.34**	0.77**	0.72**	0.70**	0.75**	
Insufficient Self Control/Discipline	-0.54**	-0.05	-0.46**	-0.16	-0.22*	-0.44**	-0.07	-0.34**

\*\*< 0.001 (Bonferroni Correction); \* < 0.005 (Bonferroni Correction)

research questions may establish empirical understanding into the underlying cognitive and emotional patterns held by those with elevated Dark Triad traits in the workplace (Baheer et al., 2023; Mahmood et al., 2021). It is essential to note that conjectures about potential early experiences and EMS coping styles are theoretical, as the study's design did not directly examine parenting experiences or EMS coping styles.

### **Machiavellianism Facets (FFMI) and EMSs**

The first research question explored which EMSs are associated with Machiavellianism facets within the working sample. Individuals' tendency to act with deliberation and order (i.e., FFMI Planfulness) exhibited significant and positive relationships with Unrelenting Standards, Entitlement/Grandiosity, and Punitiveness EMSs. These EMSs may potentially explain the Machiavellian's inclination to plan self-fulfilling goals (Visser & Campbell, 2018) and justify unethical behaviours to attain what 'rightfully' belongs to them (Jones & Paulhus, 2017) strategically and relentlessly. FFMI Agency (i.e., an inclination to be assertive, competent, confident, active, and invulnerable) also showed significant and positive relationships with Entitlement/Grandiosity, Unrelenting Standards, Approval/Recognition Seeking, and Punitiveness EMSs. Enacting these EMS may also potentially explain reports that Machiavellians are preoccupied with obtaining approval when it serves their personal goals (Farrell & Vaillancourt, 2021), exert dominance in interpersonal situations (Brewer & Abell, 2017), and value an autonomous workplace if it allows for increased power and control (Belschak et al., 2015). Although there is overlap in the EMSs associated with FFMI Planfulness and Agency, notable differences in correlation strengths were observed. Specifically, the Entitlement/Grandiosity EMS revealed a stronger relationship with Agency than Planfulness (i.e., Agency  $r = .64$ ; Planfulness  $r = .34$ ), whereas the Approval/Recognition Seeking was uniquely associated with FFMI Agency.

FFMI Antagonism (i.e., selfish, manipulative, callous, cynical, and immodest) exhibited moderate to weak positive correlation with several EMSs: Entitlement/Grandiosity, Unrelenting Standards, Punitiveness, Approval/Recognition Seeking, Mistrust/Abuse, and Negativity/Pessimism. The results align with the notion that Machiavellians can be cynical and feel justified in exploiting their colleagues as they suspect others are subjecting them to similar treatment (Serenko & Choo, 2020). It is theorized that such distrusting and cynical views of the Machiavellian may be the product of early experiences of neglect, abuse, or conflict, and EMS may initially develop as an adaptive attempt to survive the environment (Láng, 2016; Láng & Abell, 2018; Láng & Birkás, 2014). Prior research examining adolescents also reported an association between Machiavellianism and Mistrust/Abuse, Emotional Deprivation, Entitlement/Grandiosity, and Approval/Recognition Seeking EMSs (Láng, 2015). The results of the present study concur with reports that the Machiavellian's tendency to abuse and manipulate others may be a pre-emptive attempt to prevent victimization (Lang, 2015). Our study, however, is the first to explore the EMS associated with Machiavellian facets within a working sample.

## Narcissistic Facets (FFNI-SF) and EMSs

The second research question sought to answer which EMSs were associated with narcissistic facets within the working sample. The results indicated that FFNI-SF Agentic Extraversion (i.e., a disposition to grandiose fantasies, exhibitionism, acclaim seeking, and authoritativeness) significantly positively correlated with Entitlement/Grandiosity, Approval/Recognition Seeking, Mistrust/Abuse, Unrelenting Standards, and Punitiveness EMSs. These EMSs fit well with existing research that narcissistic individuals in the workplace seek recognition (Chatterjee & Pollock, 2017) and engage in self-promotional or dominance behaviours (Zeigler-Hill et al., 2021), such as over-claiming credit (O'Reilly & Chatman, 2020). These findings are congruous with a previous study conducted with an Undergraduate University population using the Narcissistic Personality Inventory (Zeigler-Hill et al., 2011). Notably, a negative relationship emerged between Agentic Extraversion and EMSs from the Disconnection and Rejection domain (excluding Mistrust/Abuse), Insufficient Self-Control/Discipline, Incompetence/Dependence, Failure, Subjugation and Emotional Inhibition. The negative correlations with these EMS may potentially suggest *Avoidant* (psychologically or behaviourally distancing from the EMS etc.) or *Overcompensation* (acting as if the opposite of the EMS is true etc.; Young et al., 2003) coping styles. This partially supports Young et al. (2003) hypothesis that narcissistic traits may be an overcompensating coping response to Defectiveness/Shame and Emotional Deprivation EMSs which result from degrading, rejecting, and cold early parenting interactions (Soleimani & Lorzangeneh, 2021).

FFNI-SF Antagonism (i.e., prone to be manipulative, exploitive, entitled, unemphatic, arrogant, distrustful, thrill-seeking, and possess reactive anger) produced significant positive correlations with Entitlement/Grandiosity, Approval/Recognition Seeking, Unrelenting Standards, Mistrust/Abuse, and Punitiveness. Although these EMSs mimic those correlated with Agentic Extraversion, Antagonism also yielded significant positive correlations (Bonferroni corrected) with Vulnerability to Harm/Illness and Negativity/Pessimism. Notable differences in the correlation strengths may partially explain reports of a darker (i.e., Antagonistic narcissism) and brighter (i.e., Extraversion narcissism) side of narcissism (Trahair et al., 2020). For example, Unrelenting Standards were more strongly related to Extraversion ( $r = .65$ ) than Antagonism ( $r = .45$ ), which makes conceptual sense given that Agentic Extraversion is marked by achieving recognition and acclaim-seeking (Sherman et al., 2015). Additionally, the Mistrust/Abuse was more strongly related to FFNI-SF Antagonism ( $r = .51$ ) compared to Extraversion ( $r = .31$ ). As the Mistrust/Abuse EMS can develop from an abusive early experience, our results suggest that similarly to Machiavellian Antagonism, narcissistic Antagonism may act as an EMS overcompensation response to pre-empt feelings of harm, threat, or victimization (Young et al., 2003). This result may support findings that leaders' narcissistic rivalry was positively associated with abusive supervision and highlights the importance of considering both Agentic and Antagonistic narcissism within organizational research (Gauglitz et al., 2022).

## Corporate Psychopathy Facets (CPI-R) and EMSs

The third research question sought to answer which EMSs were associated with corporate psychopathic facets in the working sample. All CPI-R facets significantly positively correlated with Entitlement/Grandiosity, Unrelenting Standards, Approval/Recognition Seeking, Punitiveness, and Mistrust/Abuse. The Entitlement/Grandiosity EMS produced the largest correlations with CPI-R facets, which is congruous with a recent study that employed a non-clinical sample (Doroszczyk & Talarowska, 2023). Our results contradict Maćik (2016), which reported that Entitlement/Grandiosity emerged as the only EMS associated with psychopathic traits in a non-clinical sample. Instead, our results fit well with the characteristics associated with corporate psychopathy. For example, individuals exhibiting CPI-R Boldness maintain composure in challenging situations, while individuals with CPI-R Interpersonal Dominance disregard the consequences of their actions despite knowing right from wrong, and those with CPI-R Ruthless prioritize winning regardless of the costs (Fritzon et al., 2020). The findings also support theories of successful psychopathy, which propose that such individuals possess adaptive traits that allow greater self-regulation over antisocial impulses compared to their criminal counterparts (Benning et al., 2018; Lasko & Chester, 2021). This may also explain why the Insufficient Self-Control/Discipline EMS significantly negatively correlated with CPI-R Boldness and Ruthless and therefore may be more relevant to the antisocial and lifestyle facets of criminal psychopathy (Chakhssi et al., 2014; Daffern et al., 2016; Heusschen, 2017; Vaizidis & Wismeijer, 2017). These differences highlight the importance of examining the Dark Triad traits and EMS in working populations. Future research could compare EMS amongst corporate and criminal psychopathy to establish these differences.

In addition to the EMSs reported above, the CPI-R facets of Interpersonal Dominance and Ruthless were significantly positive yet weakly related to Vulnerability to Harm/Illness and Negativity/Pessimism EMSs. The results could suggest that a lack of concern for others, acting mean (CPI-R Interpersonal Dominance), and being self-centred, antagonistic, and competitive (CPI-R Ruthless) may also reflect an overcompensation coping response to feelings of threat and cynicism. However, our results must be replicated as the correlations between the Vulnerability to Harm/Illness and Negativity/Pessimism EMSs with the CPI-R facets were weak. Daffern et al. (2016) also found that these EMSs (amongst several others) were positively correlated with elevated neuroticism, irrespective of psychopathy facets. Comparisons with this study are limited as Daffern et al. (2016) recruited offenders ( $N=68$ ) enrolled in a pre-sentence psychiatric or psychological intervention, which differs from the working sample examined in our study.

## The Dark Triad and EMSs

The last research question sought to answer whether the Dark Triad facets exhibit unique and discernible correlations with specific EMSs in the working sample. All

Dark Triad facets in the working sample united, at varying correlation strengths, with EMSs Entitlement/Grandiosity, Unrelenting Standards, and Punitiveness. Unrelenting Standards and Punitiveness EMSs belong in the Excessive Responsibility and Standards EMS domain (Bach et al., 2018) and are hypothesized to develop within a family origin that is strict and punitive and emphasizes adherence to the rules (Young et al., 2003). The Dark Triad may therefore surrender to these EMSs and maintain strict standards of work performance and may be unforgiving when they or their colleagues make mistakes, which may be experienced as controlling or fear-inducing for co-workers (Bamber, 2006). The Entitlement/Grandiosity EMS also displayed the strongest correlations with *all* Dark Triad facets in this study, except for FFMI Planfulness. The Entitlement/Grandiosity EMS is believed to develop from an overindulgent and permissive parenting style that lacked limit setting (Young et al., 2003). Although Entitlement/Grandiosity has been found previously as a positive predictor of the Dark Triad previously, Láng (2016) examined the Dark Triad as a singular construct within an adolescent sample, whereas an unpublished study examined female undergraduates (Tiadora, 2020). This study examined a *working* population and found that Dark Triad individuals in this context share a similar cognitive and emotional framework. The results could potentially inform a 'Dark' Schema Workplace model and adaptations of Schema Therapy interventions for the workplace that aim to reduce maladaptive coping behaviours, including dysfunctional workplace outcomes.

This study also found that most Dark Triad facets positively correlated with Approval Seeking/Recognition (excluding FFMI Planfulness) and Mistrust/Abuse (excluding FFMI Planfulness and Agency) EMSs. It is hypothesized that the Approval/Recognition Seeking EMS also belongs to the Impaired Limits EMS domain (Bach et al., 2018) and forms in response to a childhood marked by conditional love (Young et al., 2003), whereas the Mistrust/Abuse EMS can develop because of caregivers being emotionally or physically harmful (Young et al., 2003). The working sample's Dark Triad traits may reflect an overcompensating attempt to regain control and dominance while pre-empting harm from others and victimisation (Bamber, 2006). These results are like Louis et al. (2022), which concluded that there are core EMSs across all aspects of the Dark Triad and all four samples: Entitlement/Grandiosity, Approval/ Recognition Seeking, and Mistrust/Abuse. The researchers further reported that targeting the core emotional needs underlying these EMSs during childhood, including reducing experiences of disconnection and rejection as well as impaired limits, may reduce the development of the three EMSs and the risk of developing dark traits in adulthood (Louis et al., 2022). The findings of the current study and Louis et al. (2022) suggest that there are common EMS emerging consistently in the Dark Triad and EMS literature. However, our study also found that corporate psychopathic facets (i.e., CPI-R Interpersonal Dominance and Ruthlessness) and FFNI-SF Narcissistic Antagonism also uniquely endorsed a positive yet weak relationship with the Vulnerability to Harm/Illness EMS. These Dark facets and FFMI Antagonism were also significantly positively yet *weakly* correlated with the Negativity/Pessimism EMS. This suggests that the Antagonistic facets of narcissism, Machiavellianism, and corporate may be fuelled by cynicism and fear of harm. Although further research is required to substantiate that there are specific

EMSs associated with the Dark Triad traits within a working context, the results highlight the value of considering EMS in the workplace context.

Notably, most Dark Triad facets were significantly negatively correlated (at varying strengths) with similar EMSs. Although researchers have found evidence for the link between the quality of parental care and the attachment patterns of those with Dark Triad facets (Jonason et al., 2014), the negative correlations with EMSs from the Disconnection and Rejection domain were unsurprising. EMSs represent our deepest level of memories, emotions and cognitions and can operate outside of conscious awareness due to coping styles (Young et al., 2003). Therefore, employees with Dark Triad traits may have learnt to disregard relationships unless they serve a purpose, such as to satisfy desires for recognition (Approval/Recognition Seeking) or to inflate grandiose self-views (Entitlement/Grandiosity EMS). This conjecture aligns with research that the Dark Triad demonstrates a preference for short-term relationships (Jonason et al., 2012; Koladich & Atkinson, 2016) and have been described as bullies in the workplace (Dåderman & Ragnestål-Impola, 2019).

### Limitations and Future Recommendations

This study must be interpreted with careful consideration of its limitations. This study's use of a cross-sectional design is unable to conclude a temporal relationship (Solem, 2015) between the working sample's Dark Triad facets as a response to EMS. Future research could employ a longitudinal design or clinical interviews to clarify this relationship. Additionally, although our study is the first to explore the EMS associated with Dark Triad facets within a working sample, we are unable to conclude a direct link between EMS and the Dark Triad's dysfunctional workplace *behaviour*. Future research could expand this study by exploring how EMSs and maladaptive coping modes are related to the Dark Triad and their dysfunctional workplace behaviours.

Although the assessment package may have comprehensively assessed the Dark Triad facets, the long survey may have invited fatigue or thoughtless responses (Wetzel & Greiff, 2018) and may explain the high number of incomplete responses. This study's assessment package may also be impacted by impression management and participants' level of insight. As the Dark Triad has been reported to possess a poor sense of self (Doerfler et al., 2021) and a tendency to self-monitor their responses (Kowalski et al., 2018), future studies should employ a mixture of self- and third-party measures, social desirability scales and clinical interviews.

This study's sampling techniques created high variability, with the sample reporting various ethnicities, supervisory levels, job tenures, and occupational settings. The literature has reported differences in the expression of Dark Triad traits across the following: gender (Jonason & Davis, 2018), age (Kawamoto et al., 2020), culture (Atitsogbe et al., 2020), vocational interests (Jonason et al., 2014) and managerial position (Spurk et al., 2016). Future studies could narrow the inclusion criteria (managers from the legal sector etc.) or control for confounding variables using hierarchical regression (Tabachnick & Fidell, 2013).



## Conclusions

This novel cross-sectional study found that when examined with the Schema Therapy model (i.e., EMS), there is overlap amongst the working population's Dark Triad traits at the facet level. All Dark Triad facets united on significant positive correlations (at varying strengths) with Entitlement/Grandiosity, Unrelenting Standards, and Punitiveness. Most Dark Triad facets were positively correlated with Approval/Recognition Seeking and Mistrust/Abuse EMSs. Our findings may provide valuable insights into the underlying EMSs contributing to the dysfunctional outcomes described in the Dark Triad and organizational literature (Baheer et al., 2023; Mahmood et al., 2021). Expanding this research could inform a 'Dark' Schema workplace model and Schema Therapy interventions targeting the above EMSs to potentially reduce the Dark Triad's dysfunctional workplace attitudes and behaviours.

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**Data Availability** The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

## Declarations

**Ethics Approval** The questionnaire and methodology for this study was approved by the Human Research Ethics committee of Bond University.

**Informed Consent** Informed consent to participate was obtained from all individual participants included in the study.

**Competing Interests** The authors declare no competing interests.

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