The relationship between socially aversive personality of project managers and project performance: Evidence from the UAE

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Abstract

We study the relationship between socially aversive personality of project managers that influence behaviour, and project performance. Data from 409 project managers in the United Arab Emirates were collected using a 36-factor, workplace-focused dark personality questionnaire adapted from existing validated scales. Analysis was via Structural Equation Modelling (SPSS AMOS 29). Findings suggest that project managers: (i) exhibited higher *Narcissism* levels than *Psychopathy* or *Machiavellianism*; (ii) showed no significant variation in dark trait subscales by project characteristics; and (iii) display positively correlated dark trait subscales. Results also indicate: (iv) higher levels of each dark trait corresponding with a relationship to poorer project performance; and (v) *Psychopathy's* independent effect not being statistically significant. Given their negative relationship with project outcomes, organizations should prioritize identifying and managing these traits. Given the paucity of studies relating to this research, our study was exploratory in nature. Thus, this study serves as a primer on project-focused dark personality research and offers a novel perspective on the antecedents of project performance.

Keywords: *Project manager, Machiavellianism, Narcissism, Psychopathy, Dark Triad, Project performance*

1.0 Introduction

In project settings, the importance of the human element cannot be overstated (Ojiako et al., 2015; Chipulu et al., 2019; Ahmad et al., 2022; Cesinger et al., 2023; Ojiako et al., 2026). A central theme in this body of literature is that people-related issues account for a significant proportion of the variance between projects perceived to have performed successfully and those considered unsuccessful (Chipulu et al., 2024; Stingl et al., 2025). The significance of people-related factors is further underscored by literature emphasizing that understanding human behaviour is essential to grasping the tools, techniques, and practices of project management (Flyvbjerg, 2021). Substantial project management interest has also been generated, especially in research focused on the personality traits (e.g., Rashid and Boussabiane, 2021; Ojiako et al., 2026), and resultant behaviours of

individual project managers (e.g., Rehan et al., 2024). Essentially, the professional project manager is regarded as "...*the person held accountable by the project owner for the delivery of the project's outputs as per the approved project p*lan" (Zwikael and Meredith, 2018, p. 485).

Many of the decisions made by project managers occur within the social context of projects. Observations of past behaviour often serve as mental shortcuts in decision-making (Campellone and Kring, 2013), particularly in areas such as collaboration, communication, conflict identification, and team motivation (Bredillet, 2008). Behaviour also helps explain how individual project managers act and conduct themselves.

Several recent studies have shown a relationship between the personality of project managers that influences their behaviour, and associated traits and positive project performance (e.g., Kassa et al., 2024). These studies predominantly focus on constructive, or prosocial, personality traits that are conducive to positive behaviours. However, within the broader discourse on 'dark' personality traits (Rogoza et al., 2022), a growing body of literature highlights project managers' traits best described as antisocial, deviant, and socially aversive (e.g., Cavazotte et al., 2023; Ojiako et al., 2026).

The potential presence of 'dark' personality traits in project managers has been examined with a particular focus on the so-called '*Dark Triad*': *Narcissism* (e.g., Cavazotte et al., 2023), *Psychopathy* (Jarman, 2013), and *Machiavellianism* (e.g., Xiong et al., 2023). However, to the best of our knowledge, no project-focused studies have yet examined the *concurrent* (i.e., simultaneous) incidence of these dark personality sub-traits in terms of its relationship to project performance. In most, if not all, cases, dark personality traits have been treated as independent and distinct within project managers. Yet, as we will later demonstrate, while distinct, they are related, with considerable overlap between them (Ramos-Vera et al., 2024).

Gaining insight into the potential concurrent manifestation of dark personality traits in project managers is both timely and important for several reasons. First, the personality of an individual influences their behaviour (Colvin and Funder, 1991). Personality is defined as "...*enduring predispositions that characterize a person, such as styles of thought, feelings,*

and behaviour" (Diener and Lucas, 2019, p. 294). Personality, whether conscious or unconscious, predicts how an individual is likely to behave in specific contexts (Cattell, 1950). Second, taking into consideration that 95% of organizations have recorded some type of dark (i.e., deviant) behaviour among staff, resulting in a net cost of billions each year (Berry et al., 2007), 'dark' (i.e., deviant) behaviour, can significantly affect projects and their stakeholders, ultimately jeopardizing the viability of projects (Davis and Pinto, 2022). Third, project managers possess competencies that differ from those of managers in functional roles (Cheng et al., 2005) and from those of the general population (Rafique et al., 2023). Therefore, we expect the manifestation of dark traits in project managers to differ markedly from that of general or functional managers and the public.

In addition to these points, fourth, the inherent peculiarities of projects, such as their complexity, novelty, uniqueness, temporariness, and employment precarity, make them particularly susceptible to the manifestation of dark traits and the associated malevolent behaviours (Locatelli et al., 2022a). In fact, Singh and Singh (2002, p. 24), suggests that projects are characterised by "...*wild confusion, disorder, [and] discontinuity in information flow*". They argue this characteristic of projects fosters "...*deviant... uncontrollable... [and] irrational*" behaviours among project practitioners, indeed this novel, unique and temporary environment enables Machiavellian and perhaps also psychopathic behaviour. Drawing on theoretical and empirical evidence (e.g., Baumeister et al., 2001), we contend that malevolent personality traits are more likely to have a stronger relationship with project performance, than benevolent ones. Research suggests that malevolence elicits deeper psychological and emotional responses (Rozin and Royzman, 2001), and requires greater mental effort to manage, thereby amplifying its impact (Baumeister et al. 2001). Considering these, we propose the need to explore the co-occurrence of dark personality traits among project managers. Since the rationale above shows how particular features of projects are related to dark behaviour, we content that incidence of concurrent dark personality traits among project managers are likely to vary by project size, budget, and duration (i.e., project heterogeneity).

Considering these, we contend not only on the potential incidence of concurrent dark personality traits among project managers, but also that individually, project manager 'dark' personality traits of *Narcissism* (Pinto and Patanakul, 2015; Benson et al., 2016; Lin et al., 2018; Al-Abrrow et al., 2019; Cavazotte et al., 2023), *Machiavellianism* (Graham, 1996; Gallagher et al., 2015; Ahmad et al., 2022; Xiong et al., 2023), and *Psychopathy* (Jarman, 2013), are likely to have a detrimental impact on the performance of projects. It is contended that personality traits related to specific behaviours are known to influence job performance and work outcomes (Zell and Lesick, 2022). Dark personality traits are likely to have a negative impact on project performance(Cavazotte et al., 2023; Xiong et al., 2023). Accordingly, we pose our research question:

RQ: How does the level of concurrent dark personality traits among project managers relate to project performance?

This is the main subject of the empirical work presented in this paper. To address the research question, the remainder of the paper is structured as follows: Section 2 presents a review of the relevant literature. Section 3 outlines the research methodology. Section 4 details the analysis. We also report some simple results for our sample to explore how the incidence of concurrent dark personality traits among project managers vary by project size, budget, and duration (i.e., project heterogeneity), then the main results for the research question, which were derived using Structural Equation Modelling (SEM) via SPSS AMOS 29. Section 5 discusses the implications of our findings, and Section 6 concludes the paper. We do not in this present study, examine the potential moderating role of the project environment on the relationship between socially aversive personality of project managers and project performance.

2.0 Literature

2.1 Project performance

Some conceptual clarification is necessary at this point. Drawing on performance literature (e.g., Sonnentag and Frese, 2002; Ojiako et al., 2023), project performance refers to the

degree or proficiency with which activities contributing to core project objectives are executed in line with established criteria for time, cost, and quality. According to Chipulu et al. (2019), project performance focuses mainly on *effectiveness* (i.e., the extent to which intended project outcomes are achieved), and *efficiency* (i.e., the degree to which project implementation is optimised to minimise waste and unnecessary expenditure).

Typical performance indicators include adherence to schedule (i.e., time), compliance with budget (i.e., cost), and attainment of technical specifications (i.e., quality). Although strong or positive project performance reflects an efficient delivery process, it does not automatically equate to overall project success. This distinction arises because project success extends beyond efficiency and effectiveness in task execution to include value creation and benefits realisation. In essence, a project may perform well against traditional performance metrics such as time, cost, and quality yet still be deemed unsuccessful if it fails to deliver stakeholder value or achieve meaningful long-term benefits.

For the purposes of this study, we are looking at a strictly limited understanding of positive project performance, namely, achieving the cost, time and quality targets, the well-known '*iron triangle*' (Pollack et al., 2018). This tactical understanding of project performance is deemed most useful, considering the exploratory nature of this study and being the first to study concurrence of dark personality traits and relationship to performance success.

2.2 Behaviour, personality and personality traits

Drawing on Furr (2009), behaviour is defined as "…*verbal utterances or movements that are potentially available to careful observers using normal sensory processes*" (p. 372). Behaviour primarily refers to what an individual does; that is, physical activity or action (Bergner, 2011). It may be verbal (e.g., spoken utterances) (Horne and Lowe, 1997) or nonverbal (e.g., visual cues such as smiling) (Rodero et al., 2022), and can involve both modalities (Jackob et al., 2016).

Most behaviour is intentional (Fishbein, 2004) and must involve observable movements, even if subtle (e.g., raising an eyebrow). Physiological responses, whether internal (e.g., blood pressure) or external (e.g., sweating), are excluded from this definition.

Behaviour may be prosocial (Wu et al., 2022), defined as "...*voluntary behaviour that intends to help or benefit another person and involves making and maintaining social connections essential for cooperation and an enriched quality of life*" (Ramkissoon, 2022, p. 101290). Conversely, dark behaviour (Silva et al., 2025) encompasses self-interest and exploitation (Schmid et al., 2019), abuse of power for personal gain or self-image reinforcement (Naseer et al., 2016), and deliberate harm to others such as bullying, coercion, and unethical conduct (Fatfouta, 2019). It also includes excessive control driven by perfectionism or disregard for others' input (Itzkovich et al., 2020), and rule-breaking for corrupt or unethical purposes (Bulkan and Higgs, 2019). Such behaviour reflects intentional malevolence; an orientation toward antagonistic, exploitative, manipulative, and morally disengaged action.

Personality traits are "...*differences among individuals in a typical tendency to behave, think, or feel in some conceptually related ways, across a variety of situations and across fairly long periods*" (Ashton, 2018, p. 29). They are also described as "...*relatively stable patterns of thoughts, feelings, and actions in which each individual differs from others*" (Kandler and Bleidorn, 2015, p. 884). These traits offer a structured means of describing how individuals differ (Robinson and Routledge, 2015).

Although personality traits encompass cognitive patterns, behavioural tendencies, and values that distinguish individuals (Nagahi et al., 2021), they exclude broader differences such as intelligence (Kandler and Bleidorn, 2015), mental abilities, or attitudes (Ashton, 2018). Self-reporting remains the most common assessment method (Paulhus and Vazire, 2007), based on the assumption that individuals are best positioned to describe their own behaviours and thoughts (Robinson and Routledge, 2015).

Personality traits are widely viewed as stable and enduring characteristics that, while gradually evolving over an individual's life course, are not easily altered by short-term environmental influences such as those within a project (Rogoza et al., 2022). Nonetheless,

sustained exposure to specific project cultures and leadership styles can influence how these traits are activated and expressed (Benson et al., 2016). In project settings, personality traits shape how individuals perceive and respond to situational demands, while project behaviours and contextual dynamics moderate how these enduring characteristics manifest and affect performance outcomes (Ojiako et al., 2026).

In this study, personality traits, viewed as precursors of behaviour (Tuncdogan et al., 2017),represent enduring characteristics that shape how project managers respond to situational factors. A critical distinction must be made between traits and behaviours, often conflated in the dark behaviour literature. Dark personality traits act as antecedents of dark behaviours, while contextual elements determine whether and how these traits manifest (Higgs et al., 2023).

2.3 The 'Dark' triad

An individual's personality disposition may be *prosocial*; that is, characterised by agreeableness, positive emotionality (e.g., honesty and humility), and motivational, cognitive, and behavioural tendencies that promote cooperation (Thielmann et al., 2022). Conversely, some personality traits are *antisocial*, marked by malevolence, deviance, and socially aversive tendencies, collectively termed the dark personality (Rogoza et al., 2022). At their core lies an inclination to "...*maximize one's [own] utility - disregarding, accepting, or malevolently provoking disutility for others - accompanied by beliefs that serve as justifications*" (Moshagen et al., 2018, p. 657).

Although the literature recognises many dark personality subscales, giving rise to a 'big tent' of dark traits (Marcus and Zeigler-Hill, 2015), the most widely applied and empirically validated model in management research is the '*Dark Triad*', comprising subclinical *Narcissism*, *Psychopathy*, and *Machiavellianism* (Paulhus and Williams, 2002). The qualifier subclinical denotes expression below the clinical threshold for psychiatric diagnosis or detention under mental health law.

Each dimension represents a distinct trait with unique behavioural correlates, though considerable overlap exists among them. All three share core characteristics including:

- *Manipulativeness:* using others to achieve personal goals, often deceptively or without regard for their well-being.

- *Lack of empathy:* Reduced concern for others' feelings and needs.

- *Callousness:* emotional coldness and insensitivity to the harm caused to others.

- *Egoism or self-centeredness:* prioritization of the self over others, often excessively.

- *Exploitative interpersonal style:* using charm, deceit, or force to control or influence others.

- *Antagonism*: hostile, aggressive, or oppositional behavior toward others.

- *Low agreeableness:* cynicism, arrogance, and distrust.

Although not the central focus of this study, the preceding literature highlights an intriguing relationship between emotional intelligence (EI) and personality traits. Personality traits have been characterized as enduring patterns of thought and behavior that shape how individuals typically respond to different situations (Kandler and Bleidorn, 2015; Ashton, 2018). In contrast, EI, defined by Salovey et al. (2002) as "*the ability to competently process emotion-laden information and use it to guide cognitive activities, such as problem-solving, and to focus energy on necessary behaviors*" (p. 159), emphasizes a person's capacity to recognize, interpret, and manage both their own and others' emotions (Mayer et al., 2000), as well as to harness emotions effectively in problem-solving (Saarni, 2000). In this sense, personality traits may serve as a foundational predisposition that shapes the development or expression of EI.

2.4 Project-focused literature

Managing projects for success is inherently complex and influenced by a range of determinants, among which personality traits of project managers play a central role. Research has explored the influence of personality on decision-making styles (e.g., Sedlár and Gurňáková, 2025), demonstrating that such styles are associated with (i) particular personality characteristics, (ii) the situational salience of those characteristics, and (iii) the degree to which a given trait is activated (Lievens et al., 2006). Heightened pressure can

activate maladaptive traits In project environments, thereby undermining decision quality. Elevated pressure among project managers will substantially increase the likelihood of suboptimal decisions, potentially threatening project performance (Byrne et al., 2015).

Research on the "dark" personality traits of project managers has focused largely on the 'Dark Triad' of *Narcissism*, *Psychopathy*, and *Machiavellianism* (Ojiako et al., 2026). Understanding how these socially aversive traits affect successful project performance is essential to advancing the literature.

Narcissism encompasses traits of dominance, entitlement, and inflated self-importance (Nenadić et al., 2021). Narcissists sustain exaggerated self-views and engage in self-promotion and boasting (Den Hartog et al., 2020). Project-focused studies include Ali et al. (2021), Lynch et al. (2022), and Cavazotte et al. (2023).

Psychopathy comprises impulsivity, thrill-seeking, and emotional detachment (Justman, 2021). Psychopaths often disregard societal norms (Forsyth et al., 2012), displaying superficial charm and manipulativeness (Hall and Benning, 2006), coupled with aggression and lack of empathy (Hare, 2003). The corporate world's emphasis on power and status may attract individuals high in psychopathy (Schyns, 2015), though their prevalence in leadership remains debated (Landay et al., 2019). Initially mistaken for narcissists due to charm and manipulation (Rauthmann, 2012), psychopaths are soon perceived negatively as empathy deficits emerge. Of the triad, psychopathy is viewed as the most malevolent due to its strong link with antisocial behaviour (Paulhus and Williams, 2002). Project-related literature remains limited (e.g., Jarman, 2013).

Machiavellianism reflects strategic manipulation and exploitative interpersonal conduct (Christie and Geis, 1970). High-Machiavellian individuals exploit others for personal gain, disregard ethics (DeShong et al., 2017), and may bend or break rules (Litvin, 2019). They view others as weak and easily manipulated, exhibiting cynicism, emotional detachment, and a focus on agentic goals such as wealth and power (Rauthmann and Will, 2011). While initially perceived as competent under certain conditions (Hawley, 2003), they are typically disliked over time (Wilson et al., 1998). Project-oriented studies include Ahmad et al. (2022) and Xiong et al. (2023).

Overall, it can inferred from the literature that latent Dark Triad personality traits in project managers can be empirically inferred through observable behavioural indicators associated with *Narcissism*, *Psychopathy*, and *Machiavellianism* (Ojiako et al., 2026). Collectively, these behavioural patterns provide measurable proxies through which underlying dispositions towards socially aversive and malevolent behavior can be identified within project management contexts. In sum therefore, we hypothesize that:

H1: Latent '*Dark triad*' personality traits among project managers can be observed through indicators of *Narcissism*, *Psychopathy*, and *Machiavellianism*.

Although each element of the '*Dark Triad*' is distinct, they overlap considerably. Research highlights notable differences in how *Narcissism*, *Psychopathy*, and *Machiavellianism* affect risk-taking, organizational citizenship, and work attitudes, differences that extend to project environments. However, challenges remain. While dark traits are generally linked to negative organizational outcomes (Szabó et al., 2018), individual traits often produce varied effects (Szabó et al., 2018). Moreover, most studies overlook trait concurrence, the likelihood that these traits co-exist (Jonason et al., 2012), making it difficult to isolate their unique impact on project success.

The relationship between personality and project success is multifaceted. Regarding *Narcissism*, Pinto and Patanakul (2015) showed that narcissistic project sponsors often favour high-risk projects and overestimate outcomes for personal gain. Benson et al. (2016) found that narcissistic team members resist subordinate roles, undermining team cohesion. Lin et al. (2018) linked senior manager *Narcissism* to reduced social responsibility, while Al-Abrrow et al. (2019) noted that narcissistic leadership harms project success but can be moderated by strong risk management. Ali et al. (2021) differentiated between narcissistic admiration (which negatively affects success) and narcissistic rivalry (which does not). Recent studies support these patterns. Lynch et al. (2022) observed that narcissistic rivalry impairs cooperation and extends project timelines, whereas narcissistic admiration has little effect. Cavazotte et al. (2023) found Narcissism negatively affects cost, positively affects quality, and indirectly improves schedule performance. Higgs et al. (2023)

observed that research interest in *Narcissism* now exceeds that in other dark traits, a trend Higgs and Dulewicz (2024) attribute to its strong connection with adverse organisational outcomes.

Narcissism is theoretically and empirically expected to positively load on the Dark Triad personality construct because it shares core characteristics with the broader constellation of socially aversive and malevolent traits as initially identified by Paulhus (Paulhus, 2001, 2014; Paulhus and Williams, 2002; Paulhus and Vazire, 2007; Furnham et al., 2013). Noting our earlier point that although distinct, there were considerable overlap exists among each of the dark triad traits. *Narcissism* functions as a key indicator of the Dark Triad, contributing positively to its latent structure and explanatory power in personality-based models. Based on these insights, we will expect in the context of a negative relationship between the presence of project manager dark traits and project success, that:

H1a: *Narcissism*, will positively load on the '*Dark triad'* personality traits.

Psychopathy is also expected to positively load on the Dark Triad personality construct because its defining characteristics also do closely correspond with the core features of socially aversive and malevolent personality traits. Research on *Psychopathy* in projects is limited, with Jarman (2013) examining how psychopathic traits contributed to failed information systems implementations. Psychopathy is linked to impulsive behaviors that can undermine task performance (Blickle and Schütte, 2017). Additionally, studies indicate a negative effect on group processes and team effectiveness. For instance, Baysinger et al. (2014) found that teams with high Psychopathy levels experienced more dysfunctional interactions, harming task performance. *Psychopathy* shares behavious central to *Narcissism* and *Machiavellianism*. As such, psychopathy represents a fundamental component of the Dark Triad framework, contributing significantly and positively to the formation and measurement of the latent Dark Triad personality construct (Furnham et al., 2013; Paulhus, 2014; Paulhus and Williams, 2002; Paulhus and Vazire, 2007). Based on these findings, we propose the hypothesis that:

H1b: *Psychopathy*, will positively load on the '*Dark triad'* personality traits.

In projects, *Machiavellianism* has been linked to behaviours that threaten success. Graham (1996) found that project managers' political manoeuvring for personal gain undermines outcomes. Gallagher et al. (2015) showed that Dark Triad traits shape whether managers adopt high-performance or abusive practices, often harming project results. Ahmad et al. (2022) observed that tyrannical, Machiavellian-style leadership weakens task performance and prompts team withdrawal. Xiong et al. (2023) further demonstrated that self-focused moral judgement fosters unethical behaviour, with Machiavellianism mediating this effect.

As a trait that embodies the strategic, manipulative, and self-interested behaviours that define socially aversive and malevolent personality patterns, *Machiavellianism* is also expected to positively load on the Dark Triad personality construct. Core elements of *Machiavellianism* also do closely align with the orientation shared by *Narcissism* and *Psychopathy*. These characteristics complement the dominance and entitlement associated with *Narcissism* and the emotional detachment typical of *Psychopathy*. Consequently, also drawing on the work of Paulhus (Jones and Paulhus, 2010; Fehr et al., 2013; Furnham et al., 2013; Paulhus, 2014; Paulhus and Williams, 2002; Paulhus and Vazire, 2007). Essentially, Machiavellianism does also serve as a central and theoretically coherent indicator of the Dark Triad, contributing positively to its latent structure and measurement validity. Based on these insights, we will expect that:

H1c: *Machiavellianism*, will positively load on the '*Dark triad*' personality traits,

Whereas project managers who display stronger prosocial or 'light' personality traits are commonly associated with constructive behaviours and favourable project outcomes, those characterised by 'dark' or antisocial traits are more often linked to dysfunctional practices that diminish the prospects of project success. The negative relationship between Dark Triad traits and project performance arises from their detrimental influence on the relational, ethical, and cooperative foundations essential to effective project execution. Project work is fundamentally relational, relying on trust, transparent communication, collective responsibility, and flexible leadership to navigate complexity. Dark Triad

tendencies, such as manipulation, self-interest, and callousness, systematically weaken these conditions. As a result, leadership credibility is compromised, stakeholder commitment declines, and team cohesion deteriorates. Over time, these effects manifest in reduced morale, fragmented collaboration, and ethical slippage, which in turn increase the likelihood of schedule slippage, budget escalation, quality shortfalls, and stakeholder dissatisfaction. Accordingly, the Dark Triad personality traits of *Narcissism*, *Psychopathy*, and *Machiavellianism* are consistently associated with poor project performance, particularly in complex and uncertainty-laden project contexts.Bearing this in mind, we hypothesize that:

H2: '*Dark triad*' personality traits negatively correlate with project performance.

The model depicted in Figure 1, is a visual representation of structural relationships of the conceptual variables which are all connected. These conceptual variables represent formalization of the relationships between abstract concepts established by the co-authors in their review of related literature. The theoretical model will be tested via Structural Equation Modelling (SEM). We chose to undertake the analysis using SEM because, it allows the examination of how known '*Dark triad*' personality subscales are likely to impact on otherwise unknown factorial structures of project performance.

Figure 1: Theoretical model
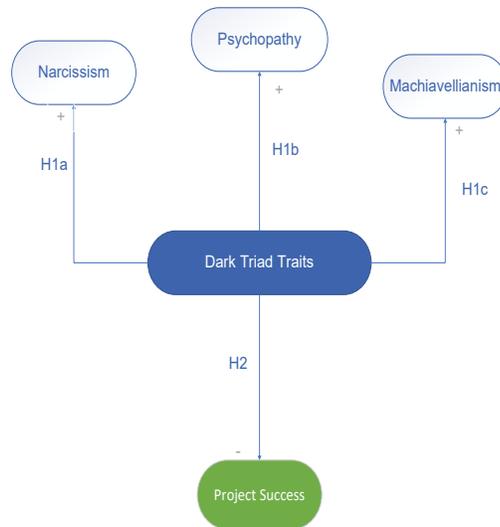
It is our intention to simultaneously test two hypotheses within the theoretical model which both directly address the research question (RQ).

3.0 Methods

3.1 Overview

Data for the study were collected from the United Arab Emirates (UAE) for the following reasons. First, the UAE is classified as a high-power-distance culture according to Hofstede's national cultural dimensions (The Culture Factor, 2023). In such cultures, hierarchies are emphasized, and managers' personalities can have significant effects due to their considerable decision-making discretion over subordinates. Second, while the UAE's infrastructure sector is one of the largest in the Middle East, approximately 50% of projects experience overruns in terms of typical measures of performance (i.e., time, cost and quality) (Faridi and El-Sayegh, 2006; Johnson and Babu, 2020). Additionally, the UAE's competitive economy attracts individuals seeking prestige, power, and career advancement (Maitner, 2023). However, these individuals are also likely to exhibit behaviours linked to dark personality traits (Singh and Singh, 2002). Despite the above, the UAE remains underrepresented in empirical studies examining how such traits manifest in project manager behaviour, making localized inquiry essential.

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3.2. The developed scale measures

The aim of our study was to examine the potential relationship between concurrent project manager 'dark' personality traits (i.e., *Narcissism*, *Psychopathy* and *Machiavellianism*) and project performance.

The use of self-report questionnaires is a widely popular method for examining personality traits (Paulhus and Vazire, 2007). In fact, self-report surveys represent the most commonly employed form of psychological assessment (Robinson and Routledge, 2015). Their popularity arises from their capacity to offer a practical and efficient means of capturing individuals' internal thoughts, emotions, and perceptions, aspects of human experience that are often extremely difficult to observe or measure directly.

In looking for an appropriate scale for the study we considered two instruments: the 12-item Dirty Dozen (Jonason and Webster, 2010) and the 27-item Short '*Dark Triad'* (Jones and Paulhus, 2014). However, both have faced substantial criticism in the literature. For example, Muris et al. (2017) argue that the limited number of items in these instruments may fail to fully capture critical features of each dark personality subscale. In looking at other scales that measure the three core dark personality factors we noted that a common critique of the scales employed in studies of dark leadership is that they tend to be self-assessed (Higgs et al, 2023). To address this, we adapted existing scale items to produce a follower related scale that would be relevant for a project management context.

We adapted existing scale items becuase we are not aware of specific developed project-focused dark personality trait measure instrument currently available that consider the incidence of concurrent 'dark' personality trait subscales. The measure we employed drew on the following previously validated scales. For *Narcissism*, we used Raskin and Terry (1988) and Jonason and Webster (2010). The sample items included; *Project managers tend to try to be dominant in social situations;* Project managers tend to be egocentric. For *Machiavellianism*, we used Dahling et al. (2009), Jonason and Webster (2010), and Jones and Paulhus (2014). The sample items included: *Project managers are willing to sabotage the efforts of other people if they threaten their goals*. Finally, for *Psychopathy*, we relied on Levenson et al. (1995), Jonason and Webster (2010), and Jones and Paulhus (2014). The

sample items include: *Project managers tell other people what they want to hear so that they will do what they want them to do; People who underestimate project managers always regret it.*

3.3. Questionnaire description

The questionnaire (Appendix A), was structured into three distinct sections, with questions serving as independent variable factors. Respondents were initially given information regarding the study, which included details about dark personality traits and the relationship between these traits and project outcomes (i.e, project performance). They were subsequently informed about the voluntary nature of their participation, along with assurances that their responses would remain confidential and anonymous. The questionnaire incorporated several quality assurance measures. To verify eligibility, respondents were also asked to confirm their recent involvement in a project, specifically in the capacity of a project manager (at any level). Those who did not meet this requirement were excluded from the study. Our intention here being to ensure that the respondents were considering their own actions, and not abstract notions/generalizations of an ideal project manager.

To promote thoughtful responses, participants were encouraged to commit to providing well-considered answers. Respondents who answered 'no' were excluded, while those who were 'not sure either way' were permitted to continue, with their responses being evaluated on an individual basis. Geisen (2022) states that this approach does improve response quality. Additional quality control measures included an attention-check question, AI-driven bot detection utilizing the Q_RecaptchaScore, and monitoring of the time taken to complete the survey and the progress made.

We used a six-point Likert-type scale (Likert, 1932) for measurement. While seven-point scales are often praised in the literature for their reliability (Preston and Colman, 2000) and are common in project-related research (Hensley, 1999), the use of a six-point scale is not unusual (Yang et al., 2011). A six-point scale is generally suitable when the goal is to encourage respondents to explicitly express agreement or disagreement (Taherdoost,

2019). This approach is preferred when (i) a scale with many points is used (Matell and Jacoby, 1972) or (ii) there are concerns that respondents may avoid the neutral midpoint to steer clear of socially sensitive topics (Johns, 2010).

This concern is relevant to our study, which explores the 'dark side of projects,' encompassing sensitive topics (Locatelli et al., 2022a, 2022b). Additionally, some research suggests that dark personality subscales may be stigmatized as personality disorders (Stanton et al., 2023). Following Taherdoost's (2019) recommendation, we reversed the question labels, with 1 representing '*Strongly agree'* and 6 representing '*Strongly disagree*,' instead of the conventional 1 ('Strongly disagree') to 6 ('Strongly agree').

3.4. Scale measures

All questions in the survey instrument were carefully selected with self-reporting efficacy in mind (Paulhus and Vazire, 2007). Specifically, we ensured (i) the survey clearly communicated the behavioural measures, (ii) it facilitated reporting of behaviours generally performed privately, and (iii) it engaged respondents' personalities in a non-invasive manner. The study was conducted solely in English, avoiding potential issues with context, syntax, or terminology in language translation.

The process for selecting items from the validated scales entailed considering whether it (i) applied to the study, (ii) addressed the research question, and (iii) did not duplicate items from other selected scales. The selection process involved three co-authors, who assessed each scale using a rating of '0' for 'Not at all a match,' '1' for '*Somewhat matches*,' and '2' for '*Very close match*.' . After completing the exercise, the final summed scores were recorded for each scale. For full agreement, a scale measure of '3' was selected. To ensure the independence of the scales, two additional co-authors served as observers.

3.5. Conducting the study

To address potential confounding variables and drawing on Chipulu et al. (2014) and Ojiako et al. (2023), we began the study by piloting a draft questionnaire with 10 PhD candidates

from the engineering management programme at the University of Sharjah. Participants were selected based on their demonstrable technical and managerial expertise in project management, as defined by the United Arab Emirates Society of Engineers (www.soeuae.ae). Expertise was determined according to the criteria outlined by Hallowell and Gambatese (2010). Feedback from pilot participants was used to refine the survey. After revisions, the questionnaire was re-sent to the participants to ensure their suggestions were fully incorporated.

To gather a large sample size, we employed a snowball sampling approach, which is commonly used in project management research (Chipulu et al., 2024) when it is difficult to define the total population of practitioners. In the UAE, no comprehensive register exists for project management professionals, and many are not affiliated with professional bodies. While snowball sampling is non-random, we mitigated this by using filtering techniques in the questionnaire to ensure only respondents with relevant experience were included in the final data analysis.

The questionnaire was disseminated through multiple channels. A link to the survey was posted on the LinkedIn pages of the first and second co-authors and sent to professional contacts via email using a database of over 1,300 contacts. Respondents were encouraged to share the survey link within their networks. Data collection lasted from 4 December 2022 to 26 August 2023, when the survey was closed.

We received 607 responses. However, many responses were incomplete, with over 12 questions left unanswered in several cases. After removing these incomplete responses (198 in total), 409 usable questionnaires remained for analysis.

Of the 409 valid responses received, approximately 66% (268) of the respondents were male, 33% (136) were female, and 1% (5) did not declare their gender. Table 1 shows the distribution of the ages of the respondents, with the majority, i.e., 76%, aged from 25 to 44. The male–female distribution fits those reported in previous studies, which highlights that the project management profession has traditionally been male dominated (Greer and Carden 2021). The same applies to the reported distribution on age which also fits those reported in previous studies (Chipulu et al. 2017; Akkermans et al. 2020).

Table 1: Age distribution of respondents

Age Range	Frequency	Per cent	Cumulative Frequency	Cumulative Per cent
35-44	163	39.85	163	39.85
25-34	148	36.19	311	76.04
45-54	45	11.00	356	87.04
18-24	40	9.78	396	96.82
55-64	10	2.44	406	99.27
65+	3	0.73	409	100.00

Table 2 indicates that most of the projects cost less than USD 500k (38%) or at least USD 500k but less than USD 5M (31%). Most projects (70%) lasted up to two years. Project sizes, which are shown in Table 3, appear consistent with these budgets and durations with the number of people involved in most being less than 50 and the number of organisations being five or less.

Table 2: Project budget and duration

Table of Project Duration by Project Budget					
Project Duration	Project Budget				
Frequency	Less than $500K (USD)	At least $500K (USD) but less than $5M(USD)	At least $5M(USD) but less than $100M(USD)	At least $100M(USD)	Total
1-2 years	51	66	29	5	151
Less than a year	91	25	7	5	128
3 to 5 years	9	30	27	25	91
Longer than 5 years	3	6	10	16	35
Total	154	127	73	51	405
Frequency Missing = 4					

Table 3: Number of people involved by number of organisations involved in the project

Table of Number of people involved by Number of organisations involved					
Number of people involved	Number of organisations involved				
Frequency	Two to five	One	Zero (no other organisations were involved in the project)	More than five	Total
At least 10 but less than 50	88	31	25	25	169
Less than 10	53	44	43	8	148
At least 50 but less than 100	34	3	5	11	53
At least 100	16	0	4	19	39
Total	191	78	77	63	409

4.0 Analysis

4.1. Scale reliability

We subjected the indicators of '*Dark Triad*' personality traits and project performance to Cronbach Alpha analysis to determine reliability. Based on this, we dropped indicators if deleting the indicator produced an increase in the coefficient alpha as that indicates that the measure is not consistent with others on the scale. Table 4 shows the retained indicators for the '*Dark Triad*' personality traits, the subscales for project performance, and the alpha coefficient of each subscale. The alpha coefficients for all subscales exceeded 0.7, which is the recommended threshold value. Hence, we can conclude that the retained measures provided reliable scales.

Table 4: Retained indicators of '*Dark Triad*' subscales and project performance

Subscale and alpha coefficient	Indicator Variable Reference
Narcissism Cronbach Coefficient Alpha = 0.910	1NARC
	3NARC
	4NARC
	5NARC
	6NARC
	7NARC
	8NARC
	9NARC
Psychopathy Cronbach Coefficient Alpha = 0.896	1PSY
	2PSY
	5PSY
	6PSY
	7PSY
	8PSY
	10PSY
	12PSY
Machiavellianism Cronbach Coefficient Alpha = 0.810	1MACH
	2MACH
	4MACH
	9MACH
	10MACH
	11MACH
Project performance Cronbach Coefficient Alpha = 0.782	1PMGT
	2PMGT
	3PMGT

4.2. Overview of analysis

The analysis considers the research question (RQ) which is addressed through correlational analysis of the substantive variables.

4.2.1. Incidence of 'Dark Triad' traits among project managers

Table 5 shows the univariate analysis of the summated scores of the '*Dark Triad*' subscales for our sample case. The descriptive statistics reveal that among project managers, *Narcissism* scores are notably higher than those for *Psychopathy* and *Machiavellianism*, though all three traits are present at moderate levels.

Table 5: Descriptive measures of summated subscales of '*Dark Triad'* traits

Variable	Simple Statistics					
	N	Mean	Median	Std Dev	Minimum	Maximum
Narcissism	409	4.29432	4.250000	1.47060	1.00000	7.00000
Psychopathy	409	3.55654	3.375000	1.42878	1.00000	7.00000
Machiavellianism	409	3.59821	3.500000	1.31671	1.00000	7.00000

This distribution suggests that while project managers do not appear to exhibit extreme Dark Triad tendencies, narcissistic characteristics may be more prevalent and could potentially exert a greater influence on project performance. The consistent presence of all three traits at moderate intensities implies a nuanced psychological profile. This subtlety suggests that these traits may manifest in ways that are meaningful to professional conduct, rather than presenting as overtly disruptive behaviors.

4.2.2. Variation of 'Dark Triad' traits among project managers by project characteristics

Table 6 shows the analysis of the variance of each summated '*Dark Triad'* subscale across heterogeneous project characteristics; namely, (i) duration, (ii) budget, (iii) number of people involved, and (iv) number of organisations for our sample case; this gives an initial result but this will be discussed further below.

Table 6: Analysis of variance of '*Dark Triad'* subscales across project characteristics

Trait	Narcissism		Psychopathy		Machiavellianism	
Project Characteristic	F Value (DF = 3)	Pr > F	F Value (DF = 3)	Pr > F	F Value (DF = 3)	Pr > F
Project Duration	0.39	0.7637	0.45	0.7161	0.57	0.6337
Project Budget	0.04	0.9885	0.89	0.4471	1.48	0.2200
Number of People	0.64	0.5884	0.96	0.4109	1.27	0.2848
Number of Organisations	1.80	0.1474	1.14	0.3332	0.18	0.9088

The F-values for all tests are not statistically significant. This suggests that the levels of all three '*Dark Triad'* traits among project managers do not vary with differences in project characteristics.

4.2.3. Effect of project manager's level of 'Dark Triad' traits on project performance

Model correlations are shown in Table 7. All correlation coefficients are significant and of sizes and signs that are supportive of the theoretical model; i.e., the '*Dark Triad*' subscales positively correlate and each separately negatively correlates with project performance. In effect, all three dark personality subscales are positively associated with increasing levels of one trait corresponding with simultaneous increasing levels of the other two. However, at the same time, increasing levels of each of the three traits within the project manager correspond with poorer project performance.

Table 7: Model correlations

| | Pearson Correlation Coefficients, N = 409 | | | |
| | Prob > \|r\| under H0: Rho=0 | | | |
	Narcissism	*Psychopathy*	*Machiavellianism*	*Project performance*
Narcissism	1.00000	0.75177	0.70389	-0.23854
		<.0001	<.0001	<.0001
Psychopathy	0.75177	1.00000	0.84520	-0.25763
	<.0001		<.0001	<.0001
Machiavellianism	0.70389	0.84520	1.00000	-0.33873
	<.0001	<.0001		<.0001
Project performance	-0.23854	-0.25763	-0.33873	1.00000
	<.0001	<.0001	<.0001	

We conducted *Structural Equation Modelling* using SPSS AMOS 29. The Chi-square for the model significant with $\chi 2$ = 553.78 (*df* = 271, *p* < 0.001) suggests a significant discrepancy. However, other fit measures suggest a good fit: Root Mean square Residual (*RMR*) = 0.128, i.e., close to zero; Root Mean Square Error of Approximation (*RMSEA*) = 0.054 was less than .06, which indicates good fit; Goodness of Fit Index (*GFI*) = 0.990 was greater than 0.95 and close to 1; and the Comparative Fit Index (*CFI*) = 0.946 was greater than the recommended threshold of 0.9.

The average variance explained (*AVE*) of the subscales all exceeded the recommended threshold of 0.5. The AVE values were project performance = 0.552; *Machiavellianism* = 0.509; *Psychopathy* = 0.522; and *Narcissism* = 0.563.

Table 8 shows the '*Dark Triad*' standardized values of the loadings of each indicator onto its assigned factor and the regression effects.

Table 8. Estimated effects for the '*Dark Triad*'

Variable 1	Effect	Variable 2 (Subscale)	Estimate
Narcissism	<---	Dark Triad Traits	0.83
Psychopathy	<---	Dark Triad Traits	0.97
Machiavellianism	<---	Dark Triad Traits	0.989
Project performance	<---	Dark Triad Traits	-0.334
1NARC	<---	*Narcissism*	0.53
3NARC	<---	*Narcissism*	0.696
4NARC	<---	*Narcissism*	0.749
5NARC	<---	*Narcissism*	0.737
6NARC	<---	*Narcissism*	0.732
7NARC	<---	*Narcissism*	0.833
8NARC	<---	*Narcissism*	0.848
9NARC	<---	*Narcissism*	0.827
1MACH	<---	*Machiavellianism*	0.807
2MACH	<---	*Machiavellianism*	0.682
4MACH	<---	*Machiavellianism*	0.767
9MACH	<---	*Machiavellianism*	0.586
10MACH	<---	*Machiavellianism*	0.703
11MACH	<---	*Machiavellianism*	0.702
1PSY	<---	*Psychopathy*	0.652
2PSY	<---	*Psychopathy*	0.688
5PSY	<---	*Psychopathy*	0.756
6PSY	<---	*Psychopathy*	0.785
7PSY	<---	*Psychopathy*	0.746
8PSY	<---	*Psychopathy*	0.726
10PSY	<---	*Psychopathy*	0.695
12PSY	<---	*Psychopathy*	0.764
1PMGT	<---	Project performance	0.703
2PMGT	<---	Project performance	0.841
3PMGT	<---	Project performance	0.673

All estimated values (as shown in Table 8) were significant at the 0.05 p-value level. Consistent with the theory, the three '*Dark Triad*' subscales have strong positive loadings on the '*Dark Triad*' factor. Therefore, for the initial model, hypotheses H1a, H1b, and H1c were all supported. Similarly, the estimated effect of the '*Dark Triad*' factor on project performance is negative and significant, which supports hypothesis H2.

4.2.4. Effect of project manager's level of 'Dark Dyad' traits on project performance

Earlier, we highlighted questions being raised on the various elements of the '*Dark Triad*' and/or '*Dark Tetrad*' configurations. In a good number of these instances, the place of *Psychopathy* within the '*Dark Triad*' had been questioned. The SEM model estimated a negative variance for the *Psychopathy* subscale, which is not admissible. This indicated issues with multicollinearity resulting from the very strong correlation between *Psychopathy* and the other '*Dark Triad*' subscales (i.e., *Machiavellianism* and *Narcissism*). Therefore, to address this issue, we simplified the model so that we estimated a revised model shown in Figure 2, which we refer to as the '*Dark Dyad*' model.

Figure 2: Revised theoretical model
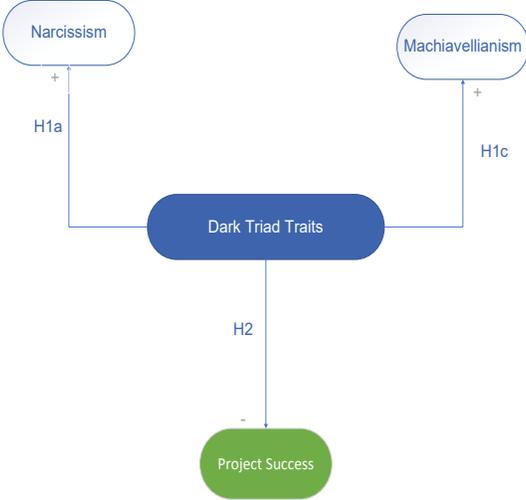
The structural equation model of the *'Dark dyad'*, using the asymptotically distribution-free approach, produced an acceptable fit. Although the Chi-square for the model $\chi2$ = 333.685 (*df* = 116, *p* < 0.001) was significant, the discretionary fit parameter indicated an acceptable fit with Root Mean square Residual (RMR) = 0.329, i.e., close to zero, where the Goodness of Fit Index (GFI) = 0.928 was greater than 0.9 and close to 1, and remained so even when adjusted for the degrees of freedom so that Adjusted Goodness of Fit Index (AGFI) = 0.906.

The average variance explained (AVE) of the subscales all reached the recommended threshold of 0.5. The AVE values were project performance = 0.64, Machiavellianism= 0.56, and *Narcissism* = 0.63.

We applied Fornell and Larcker (1981) criterion to evaluate Discriminant Validity, whereby Discriminant validity is established if the AVE for each construct is greater than the squared correlation it shares with any other construct in the model. Table 9 shows the relevant data for the three constructs in the final model.

Table 9. Construct Validity using Fornell and Larcker Criterion

Construct			Cross-Construct Correlations		
	AVE	Square Root of AVE	Project performance	Machiavellianism	Narcissism
Project performance	0.64	0.8		-0.33873	-0.23854
Machiavellianism	0.56	0.7483			0.70389
Narcissism	0.63	0.7937			

All three constructs exhibit good discriminant validity as the square root of AVE is greater than their correlations with the other constructs in the model.

Table 10 shows the standardized values of the loadings of each indicator onto its assigned factor and the regression effects. All estimated values were significant at the 0.05 p-value level. Consistent with the theoretical model in Figure 2, the two *'Dark dyad'* subscales have strong positive loadings on the *'Dark dyad'* factor. Therefore, both hypotheses H1a and H1c were supported. Similarly, the estimated effect of the *'Dark dyad'* factor on project performance was negative and significant, in support of hypothesis H2.

Table 10. Estimated effects for the '*Dark dyad*'

Measure		Factor	Estimate
Narcissism Trait	<---	Dark Dyad traits	0.841
Machiavellianism Trait	<---	Dark Dyad traits	0.999
Project performance	<---	Dark Dyad traits	-0.584
1MACH	<---	*Machiavellianism* traits	0.843
2MACH	<---	*Machiavellianism* traits	0.778
4MACH	<---	*Machiavellianism* traits	0.792
9MACH	<---	*Machiavellianism* traits	0.696
10MACH	<---	*Machiavellianism* traits	0.632
11MACH	<---	*Machiavellianism* traits	0.732
1NARC	<---	*Narcissism* traits	0.579
3NARC	<---	*Narcissism* traits	0.76
4NARC	<---	*Narcissism* traits	0.807
5NARC	<---	*Narcissism* traits	0.758
6NARC	<---	*Narcissism* traits	0.817
7NARC	<---	*Narcissism* traits	0.863
8NARC	<---	*Narcissism* traits	0.881
8NARC	<---	*Narcissism* traits	0.872
1PMGT	<---	Project performance	0.687
2PMGT	<---	Project performance	0.836
3PMGT	<---	Project performance	0.866

5.0. Discussion

Briefly stated, we made five specific findings from the study which are now discussed under four headings: (i) the manifestation of '*Dark Triad'* traits among project managers; (ii) variation of '*Dark Triad'* traits among project managers by project characteristics; (iii) relationship between project manager's level of dark personality traits and project performance; and (iv) negative variance for the *Psychopathy* subscale.

5.1'Dark Triad' traits among project managers

Univariate analysis of the summated '*Dark Triad'* subscales showed moderate levels of all traits, with *Narcissism* being more prevalent among project managers than *Psychopathy* or

Machiavellianism. The presence of all three traits supports evidence of their overlap and intercorrelation (Miller et al., 2019). As maladaptive traits, they may be viewed as lower-order constructs contributing to a higher-order trait of malevolence (Rauthmann and Kolar, 2012), aligning with the 'unificationist' view of a global dark personality factor (Jones and Paulhus, 2010). This contrasts with the 'discriminationist' perspective, which treats these traits as distinct, each with separate behavioural dynamics.

Our findings on the higher levels of *Narcissism* among project managers are not particularly surprising. For example, Muris et al. (2017) observed that the three '*Dark Triad'* personality traits do not equate equally in importance. Similar findings have been reported elsewhere. Rauthmann and Kolar (2012) also found *Narcissism* to generally weigh in much more positively than *Psychopathy* or *Machiavellianism* in a study of psychology students. Comparable results were reported by Westerman et al. (2012) in a study of business students.

Another explanation for our finding relates to the composition of the current workforce, which is predominantly made up of millennials (TeamStage, 2024). Several studies have found higher incidences of *Narcissism* among the millennial generation than among previous generations (Suchak et al., 2022).

*5.2. Variation of '*Dark Triad'* traits among project managers by project characteristics*

In our analysis of the variance in each summated '*Dark Triad'* subscale across heterogeneous project characteristics, we found that the levels of all three '*Dark Triad'* traits among project managers did not vary with differences in project characteristics. This finding was somewhat surprising. Various theories, particularly those aligned with the 'person-task fit' thesis (van Woerkom et al., 2024), have been cited by researchers to demonstrate how the personalities of project managers serve as crucial predictors of project decisions and may negatively impact project outcomes (Malach-Pines et al., 2009). Much of this research is situated within the operations and project management literature (Hassan et al., 2017), as well as in related disciplines such as human resource management and organizational behaviour (e.g., Rafique et al., 2023).

Two points warrant discussion. First, personality traits may significantly influence the type of job an individual project manager prefers (Stewart et al., 2005). This implies that project managers tend to select projects that they perceive to be aligned with their personalities. Consequently, the greater the alignment between a project manager's personality and the project they have chosen to lead, the more likely they are to commit to driving project performance. Second, despite these preferences, project managers do not always have autonomy in choosing their assignments. Instead, their placement is often determined by the project sponsor (Pinto and Patanakul, 2015). This suggests that it is the trait disposition of the project sponsor, rather than that of the project manager, that may vary with differences in project characteristics.

5.3. Relationship between project manager's level of dark personality traits on project performance

We employed Structural Equation Modelling (SEM) to assess the nature of relationship between an individual's '*Dark Triad*' personality traits and project performance (as a measure of project performance). We made two significant findings. First, all three dark personality subscales were positively associated with increasing levels of one trait, which corresponded with simultaneous increases in the other two traits. Second, higher levels of each of the three traits were linked to poorer project performance.

Our findings regarding the positive correlation between increasing trait levels align with existing literature. Hardin and Smith (2022) found that the presence of each '*Dark Triad*' trait predicted the others significantly. This suggests that individuals exhibiting *Narcissism* were also likely to exhibit *Machiavellianism* and *Psychopathy*, and vice versa. Our results, therefore, support the 'unificationist' view of the dark personality factor.

As for the association between increasing trait levels and poorer project performance, our findings match project-focused literature, which indicates that higher levels of any '*Dark Triad*' trait are positively related to worsening project outcomes. For instance, *Machiavellianism* negatively impacts team members psychologically (e.g., fostering distrust), reduces commitment, increases burnout, and promotes counterproductive

behaviours. These behaviours impede the project manager's ability to build effective relationships with the team and can lead to high turnover, threatening project performance.

Lubit (2002) outlines characteristics of *Narcissism*, which we argue have significant negative implications for projects. These include an inflated sense of self-importance, entitlement, exploitation, and a lack of concern for others. Other traits include prioritizing personal needs over the project's (Gallagher et al., 2015), holding unrealistic expectations (Pinto and Patanakul, 2015), and a tendency toward risk-taking (Foster et al., 2009). *Narcissism* personality traits will therefore undermine project performance.

Although literature on *Psychopathy* in projects is limited, with notable work by Jarman (2013), broader psychological literature supports our findings. Psychopaths tend to exhibit aggression, lack of empathy, and indifference, creating a fear-driven environment. This leads to high staff turnover, which negatively impacts project performance (Marsh and Cardinale, 2012). Psychopaths also lack responsibility (Boddy et al., 2010) and demonstrate poor judgment (Newman, 1998), further jeopardizing project performance. In conclusion, *Psychopathy* personality traits will therefore undermine project performance.

5.4. Negative variance for the Psychopathy subscale

We found that the SEM model estimated a negative variance for the *Psychopathy* subscale, suggesting that it was not a a major personality trait related to successful project performance. Our findings indicate that psychopathy is not significantly related to successful project performance. Thus, despite Singh and Singh's (2002) assertion that the project environment enables Machiavellian and perhaps also psychopathic behaviour, it may be that the context of project management is not sufficient to enable the emergence of psychopathic traits as dark behaviours. For these reasons, *Narcissism* and *Machiavellianism* are the only predictors of dark personalities among project managers, forming a '*Dark dyad'* personality trait.

Our findings were not expected. This is particularly notable given the limited research on the distinct behaviour of psychopathy within project management contexts, with Jarman (2013) being the only notable study to date. As a result, there remains an inadequate

understanding of how *Psychopathy* manifests in project settings. Nevertheless, some studies have reported that elevated levels of *Psychopathy* are negatively associated with group and team effectiveness, both of which are important elements of projects. Examples include the works of Ravindran et al. (2024).

Our findings are also interesting given that there are no precise figures on the proportion of managers exhibiting psychopathic traits. However, Croom et al. (2021) found that about 12% of supply chain managers showed clinically significant evidence of *Psychopathy*. We believe there are reasons why we did not find *Psychopathy* in our sample. One reason is that projects are temporary, leading to high employment mobility and career repositioning. Project managers are hired based on their job fitness, which often involves understanding their career history. *Psychopathy* traits would hinder hiring due to a career history likely marked by nefarious behaviours, making it less likely that such individuals are hired or selected for new projects. Moreover, unlike *Narcissism* and *Machiavellianism*, which become progressively less favourable over time, psychopathy tends to be viewed negatively from the outset in interactions with others. Furthermore, while formal job ads are important for project manager roles (Chipulu et al., 2012, 2016), jobs are mainly procured through professional and social networks (Barbulescu, 2015). Psychopaths struggle to maintain relationships, which makes it less likely they would be hired or would remain in project manager roles.

6.0 Conclusions

This paper presents the findings of an exploratory study examining the potential relationship between project managers' socially aversive personalities and project performance. Our analysis yields five key insights. First, *Narcissism* appears more prevalent among project managers than either *Psychopathy* or *Machiavellianism*. Second, the levels of all three 'Dark Triad' traits do not vary significantly with project characteristics, such as project heterogeneity. Third, the traits are positively correlated, with higher levels of one trait associated with increases in the others. Fourth and fifth, elevated levels of each trait generally correspond with poorer project outcomes, although the *Psychopathy* subscale

shows a negligible relationship with performance. These findings offer both theoretical and practical contributions to project management research.

Uniquely, our research examines the concurrent occurrence of *Narcissism*, *Psychopathy*, and *Machiavellianism* rather than treating them independently, filling a gap identified in existing scholarship (Szabó et al., 2018). By exploring this concurrency, we enhance understanding of how combined dark traits may influence project performance. While acknowledging this overlap, each 'Dark Triad' trait retains distinctive features (Bader et al., 2023), and project managers may exhibit any single trait independently. Our findings align with Rogoza et al. (2022), indicating that the Dark Triad provides a limited but useful lens for understanding tendencies toward malevolent behaviour. Methodologically, this study is the first to apply a structural model to examine the simultaneous occurrence of these traits among project managers, offering a more robust and nuanced framework than prior research, which often relied on simpler trait measures or isolated analyses.

6.1. Theoretical contributions

The findings of this study generate important theoretical and practical implications for three interrelated areas of project scholarship and practice: (i) project success, (ii) project leadership, and the emerging literature on (iii) the dark side of projects. By placing explicit emphasis on the human and psychological dimensions of project work, the study responds to a long-standing concern within project management that has often been acknowledged rhetorically but insufficiently examined empirically. While formal methodologies, governance frameworks, and technical competencies remain essential, this research reinforces the view that project outcomes are fundamentally shaped by the behavioural dispositions and personality characteristics of those entrusted with leadership responsibilities.

6.1.1 Theoretical contributions for project success

Historically, a narrowly defined conception of project success, centred on the achievement of cost, time, and quality targets, has dominated the project management literature (e.g.,

Atkinson, 1999; Pollack et al., 2018; Wang et al., 2021). This study, however, builds directly on the subjectivist reconceptualisation of project success advanced by Ika and Pinto (2022), who contend that success should be understood as a socially constructed and contextually embedded phenomenon rather than a purely objective or technically defined outcome. From this perspective, project success emerges through stakeholder interactions and is interpreted differently according to stakeholders' interests, expectations, and power relations. Such negotiations are particularly important given the well-documented lack of agreement among stakeholder groups, including senior management, core project teams, and project beneficiaries, regarding the factors that constitute project success (Davis, 2014; Chipulu et al., 2019; de Almeida Rodrigues et al., 2024).

Extending this line of reasoning, the present findings suggest that project success may also be filtered through the personality of the project manager. Project managers exhibiting elevated levels of dark personality traits may develop idiosyncratic and self-serving interpretations of success that diverge from those held by other stakeholders, thereby creating misalignment between perceived and actual performance. This personality-dominated framing of success, where project outcomes are attributed primarily to individual actors and personal traits rather than to systemic project factors (e.g., governance mechanisms) or contextual constraints (Malach-Pines et al., 2009; Mazur et al., 2014), introduces an additional layer of subjectivity that further complicates traditional approaches to success evaluation and performance measurement.

Empirical evidence from this study demonstrates that higher levels of *narcissism* and *machiavellianism*, and to a lesser extent *psychopathy*, are negatively associated with project performance. These findings underscore the central role of project manager behaviour in shaping project outcomes (e.g., Ahadzie et al., 2008; Wang et al., 2016). They also provide a strong counterpoint to conventional project management models that prioritise technical expertise, procedural compliance, and methodological rigour as the primary drivers of success (Zheng et al., 2025). While such competencies remain critical, the results suggest that they may be insufficient on their own. Projects may still underperform or fail when project manager behavioural tendencies undermine

collaboration, ethical decision-making, and trust, even in the presence of robust technical systems.

Future research could therefore extend this work by examining the effects of dark personality traits on a broader, more strategic conception of project success. This might include a wider range of stakeholders (Davis, 2014), the overall usefulness and benefits of projects beyond immediate deliverables, alongside tactical success criteria (Williams, 2022), and further reconceptualisation of the very notion of "project success" itself (Ika and Pinto, 2022).

6.1.2 Theoretical contributions for project leadership

Classical leadership theory distinguishes between technical, human, and conceptual skills, arguing that leadership effectiveness is driven less by technical proficiency and more by the capacity to understand people, interpret complex situations, and exercise judgement (Katz, 1955). While this foundational framework has long shaped leadership research, project management scholarship has sometimes emphasized technical competence as an implicit marker of leadership effectiveness (Webster, 1994; Grant et al., 1997; Varajão and Takagi, 2024). Our study challenges this assumption by reinforcing the primacy of human skills, while also advancing project leadership theory through a more behaviourally grounded and psychologically realistic lens.

Specifically, the study positions socially aversive (or "dark") personality traits as critical antecedents of leadership behaviour and, by extension, project performance. In doing so, it aligns with growing evidence that technical competence alone should not be treated as a proxy for leadership effectiveness (Tan, 2022), nor assumed to offset or neutralise the dysfunctional behavioural consequences associated with destructive personality tendencies. This represents a conceptual shift away from overly instrumental views of leadership capability towards a more nuanced understanding of how stable personality dispositions shape managerial action in project environments.

Rather than treating leadership as inherently prosocial, this perspective recognises leadership behaviour as contingent, relational, and subject to individual psychological

predispositions. Our findings demonstrate that dark personality traits can significantly undermine key dimensions of project leadership, including risk-related decision-making (Wang et al., 2016; Ali et al., 2021), trust formation and maintenance (Prater and Kirytopoulos, 2024), and conflict management processes (Lynch et al., 2022). By foregrounding these behavioural mechanisms, the study enriches explanations of leadership variability in projects (see also Hardin and Smith, 2022; Van Gerven et al., 2026) and helps clarify why technically capable project managers may nonetheless preside over poor performance outcomes (Cavazotte et al., 2023; Xiong et al., 2023).

Theoretically, this contribution challenges idealised portrayals of project leaders as rational, impartial, and uniformly benevolent actors (Cheng et al., 2005; Bredillet et al., 2015; Kassa et al., 2024). Instead, it advances a psychologically grounded account of project leadership that recognises how enduring personality traits shape judgement, interpersonal conduct, and governance-relevant behaviours. This framing also brings project leadership research into closer alignment with contemporary debates in personality psychology and behavioural governance.

From a practical and governance standpoint, the study underscores the need to sensitise project sponsors, oversight bodies, and key stakeholders to the risks posed by dark personality traits. Given the relative stability of such traits across time and project contexts, organisations cannot rely solely on selection or leadership training as remedial strategies. Instead, systematic and sustained support mechanisms are required, including strengthened governance structures, ethical oversight, behavioural monitoring, and leadership development initiatives that emphasise self-awareness, accountability, and adaptive coping strategies (Hudson, 2023). These interventions are particularly critical in complex, high-stakes projects, where the behavioural failures of project leaders can generate severe and far-reaching consequences.

6.1.3 Theoretical contributions for the dark side of projects

The study also makes a substantive contribution to the growing body of research on the dark side of projects (Locatelli et al., 2022a, 2022b), which seeks to move beyond the dominant

focus on positive and prosocial attributes in project research. Historically, phenomena such as unethical conduct, corruption, and illegality within projects have been viewed as uncomfortable or marginal topics, resulting in their limited coverage within mainstream project management journals (Locatelli et al., 2022a). Turner (2022) similarly notes that psychological and cognitive dimensions have received relatively little attention within the field. As a result, there remains a paucity of empirical studies examining how dark personality traits predispose project leaders to destructive or malevolent behaviours.

By addressing this gap, the present study contributes to an expanding stream of scholarship that recognises the prevalence of socially aversive traits among project management practitioners and their potential role in explaining unethical and unlawful practices in project settings. Documented examples include corruption in large-scale infrastructure projects (Locatelli et al., 2017), the persistence of modern slavery within project supply chains (Alzoubi et al., 2023), and the deliberate misrepresentation or manipulation of project information (Ojiako, 2023; Ojiako et al., 2025). In extreme cases, the interaction between dark personality traits, organisational pressures, and weak governance arrangements may precipitate behaviours that expose individuals and organisations to significant legal and criminal liability (Kirkland, 2022; Ojiako, 2023). Collectively, these insights reinforce the importance of integrating psychological realism into project management research and practice, particularly when seeking to understand project failure, misconduct, and harm within complex organisational and institutional contexts.

6.2. Practical and managerial implications

The findings of this study yield important practical insights for project sponsors. They point to the need for a reconceptualization of the social and relational fabric supporting project manager behaviour. Specifically, project sponsors should recognize the potential interplay and co-occurrence of project managers' dark personality traits, which may collectively shape behavioural dynamics and influence project performance. Addressing this challenge requires the formulation of more nuanced person–task fit frameworks, ones that extend beyond the prescriptive approaches currently emphasized in the project management

literature and take into account the psychological and behavioural complexity of leadership roles. We contend that such frameworks should consider situational stressors that can amplify or trigger the concurrent manifestation of dark traits. Doing so will enable project sponsorts to anticipate and mitigate undesirable behavioural outcomes before they escalate into performance or governance failures. The findings also provide valuable learning opportunities for team members who work closely with project managers, encouraging greater awareness of how personality traits drive behaviours influence (with an impact on interpersonal relations, communication patterns, and collective performance).

At an institutional level, the study underscores the importance of carefully designing processes for the identification, evaluation, and management of dark personality tendencies among project management professionals. Nevertheless, project sponsorts and project organisations must exercise caution when employing psychometric or behavioural assessment tools, as their reliability and validity critically determine the soundness of evaluation outcomes. Finally, it is essential to acknowledge that the expression of dark personality traits is situationally contingent, shaped by context, culture, and organizational climate, thereby reinforcing the need for adaptive, context-sensitive management and leadership development interventions..

6.3. Limitations

The study has several limitations that open avenues for future research. First, and perhaps most importantly, is the use of a scale that was developed for this research. This includes tests for face, convergent, discriminant, and predictive validity. In the case of scales for the '*Dark Triad'* (or its components), the challenge is compounded by significant construct overlap. Indeed, most of the existing measures are subject to considerable critique. For example, the Narcissistic Personality Inventory (see Raskin and Terry, 1988) is criticized for producing a global measure of narcissism, which can lead to contradictory findings (Ackerman et al., 2011). This has sparked discussions around sub-divisions of narcissism (e.g., adaptive and maladaptive), with some scholars arguing that adaptive narcissism is not necessarily a negative trait, and that only maladaptive narcissism should be measured in

the context of dark traits (Brown et al., 2009). Similar issues arise with the measurement of *Psychopathy* and *Machiavellianism*. Furthermore, our finding of significant overlap among the three subscales, *Narcissism*, *Psychopathy* and *Machiavellianism*, is well established in the literature and itself constitutes a critique of using '*Dark Triad'* measures.

We had defined project performance primarily using the "iron triangle" metrics (see Atkinson, 1999): completion within schedule, within budget, and in accordance with specified quality or standards. However, modern project management literature increasingly focus on project success as a multifaceted concept, extending beyond these traditional metrics to include stakeholder satisfaction, team morale, learning outcomes, and long-term organizational impact (see Ika and Pinto, 2022). Furthermore, although the literature argues that dark personality traits among project managers are likely to vary by project size, budget, and duration (i.e., project heterogeneity), we did not deliminate the projects studied into public, private. However, it is a reality that project characteristics (e.g., size, budget, duration) are often correlated with whether a project is public or private. Thus, not examining project ownership type (i.e., public vs private) limits the generalizability of the present study and serves an important contextual factor requiring future study.

Dark personality traits: particularly *Narcissism* and *Psychopathy*, are known to severely affect interpersonal relationships, team dynamics, and organizational culture. These negative interpersonal consequences may not be fully captured by conventional project performance metrics. As a result, our conclusions regarding 'poorer project performance' may understate the full extent of the relationship between dark traits (which are likely to cause significant harm), and less tangible, yet equally important, dimensions of project success.

Second, the use of questionnaire surveys in studies examining dark personality traits, particularly those associated with the 'Dark Triad' (*Narcissism*, *Psychopathy*, and *Machiavellianism*), faces significant challenges due to the very nature of these traits, which are marked by manipulativeness, and exploitation. Individuals exhibiting such traits may consciously or unconsciously present themselves in a more favorable light when completing surveys (Kowalski et al., 2018). They may also (or on the alternative), struggle to

accurately assess either their own behavior or that of others (Doerfler et al., 2021). Overall, they may lack the reflective capacity required to respond meaningfully to survey items (Littrell et al., 2020). These factors can lead to distorted or inaccurate responses, thereby casting doubt on the validity of data obtained through such instruments.

Third, and equally important, despite our best efforts to ensure that respondents reflected on their own actions, rather than abstract notions or generalizations of an ideal project manager, the inexperience of some participants may have affected their ability to accurately discern and articulate dark behaviours. Bearing this in mind, future research should consider alternative data sources or methods, such as direct behavioral observation (Furr and Funder, 2007).

Fourth, there are potential limitations with our data analysis. A concern being that endogeneity was not addressed in the study which is vital for improving the accuracy and reliability of statistical analysiss and for better understanding the causal relationships between variables by justifying omitted variables and reverse causality, among others (Hill et al., 2021). However, while we agree with this principle, the primary statistical issue we encountered was not endogeneity, but a different and more fundamental problem: multicollinearity. The initial 'Dark Triad' SEM model produced a statistically inadmissible result, a negative variance for the *Psychopathy* subscale. This issue was directly caused by the extremely high correlation between the 'Dark Triad' traits (*Narcissism*, *Psychopathy*, and *Machiavellianism*). This severe multicollinearity made it impossible for the model to distinguish the unique contributions of each variable. Furthermore, the concern regarding reverse causality, which is a key aspect of endogeneity, is not conceptually applicable in this study. The dark personality traits (*Narcissism* and *Machiavellianism*) are enduring characteristics of an individual. At present, there is no theoretical basis for these traits to be a consequence of, or to arise from, project performance or its failure. The direction of influence is conceptually one-way: from the personality traits to project performance. To address multicollinearity, we simplified the model to a *'Dark Dyad'* which eliminated the statistical instability and resulted in a stable and reliable model. This approach allowed for

a clear and accurate analysis of the relationships among the remaining variables without the statistical noise created by the highly correlated, redundant variable.

Another concern with our data analysis is that no details regarding control variables were provided in this study. However, while these variables are important for reducing confounding and increasing validity and accuracy, a delibrate decision was made not to include them in order to maintain a more parsimonious model and focus our analysis on the core theoretical relationships. Their exclusion was a conscious methodological choice to ensure clarity and precision in testing our primary framework.

Fifth is the limited exploration of personality traits from a leadership perspective. While some scholars support the link between leadership behaviours and the role of the project manager (e.g., Dvir et al., 2006), others do not (e.g., Mathieu, 2021). Nevertheless, future studies should investigate the dark traits of project managers in conjunction with leadership competencies to provide a more balanced perspective.

Sixth, our data were collected exclusively from project managers in the UAE, which raises some concerns. For example, no details regarding the types of projects they have been involved in were provided which raises questions on how the respondents can justify that behavioral patterns (here, dark personality traits and their effects) are the same across different projects. On this point, we acknowledge that because we consider personality traits to be enduring dispositions, we did not segment our analysis by project type. We acknowledge this as a limitation and agree that future research could investigate these effects in different project types. Another concern is that we used project managers to assess the effects of their behaviors on project performance which created the risk of common-method bias or same-source bias. This point is also acknowledged, however, the approach that was choosen as the sole data source was a necessary choice, as the project managers are uniquely positioned to provide data on both their own personality and their project's outcomes.

Collecting data exclusively from project managers in the UAE also raises concerns about the generalizability of our findings to other cultural or economic contexts. There are a couple of key issues that emerge in relation to the UAE context of our study. One being that, whether

the behaviours observed are culturally influenced or contextually driven by the nature of projects in the UAE. Although the choice of the UAE is justified by its high power-distance culture and competitive economy, we do not deeply explore how these specific cultural factors might influence the manifestation or perception of dark traits. In a high power-distance culture, certain behaviours associated with *Narcissism* (e.g., dominance, grandiosity) may be more tolerated, or even viewed as signs of strong leadership, potentially masking their detrimental effects in comparison to cultures with different power dynamics. Similarly, Machiavellian tactics may be more effective or ethically acceptable depending on local business norms and interpersonal expectations. Therefore, while our findings are valuable from a UAE perspective, they may not be directly transferable to other cultural contexts outside the Gulf Cooperation Council (GCC) cultural region (i.e. Bahrain, Kuwait, Oman, Qatar, and Saudi Arabia), without comparative investigation.

The other issue with our data is the fact that most respondents (76%) were between the ages of 25 and 44 years, thus potentially introducing bias stemming from a relatively less experienced sample. The sample, however, aligns with the age structure of the UAE population which reports 68.03% of the population being between 25 and 54 years (Global Media Insight, 2025). While the length of work experience is not inherently linked to the development of dark personality traits, it may influence how these traits are perceived or expressed in the workplace. In this regard, less experienced project managers may be more likely to report or perceive heightened expressions of dark traits due to limited professional maturity or reduced exposure to workplace norms, which can affect their ability to discern and articulate such behaviours appropriately. Therefore, future research should aim to broaden the scope of data collection by including project managers from a variety of countries and with a wider range of experience levels. This would provide more comprehensive empirical insights into the influence of dark personality traits on project performance.

Finally, we employed a non-random 'snowball' sampling method, which means we cannot ascertain whether the sample is truly representative due to the absence of a complete sampling frame for project professionals in the UAE. However, we argue that the

sample remains valid, as participants were selected based on their substantial project experience across the UAE. Moreover, a commonly accepted rule of thumb recommends multiplying the number of Likert items by five when determining sample size. With 409 valid responses to a 36-item survey, this minimum threshold was exceeded. Future studies may consider engaging professional bodies such as PMI Khaleeji (UAE) to support broader dissemination of the questionnaire. Finally, the study did not account either for two further aspects of projects. It did not consider a wider view of project success: there is considerable scope for study of the effect of project management personality constraints on the whole project life cycle and measures of a wider, more strategic view of project success (Ika and Pinto, 2022). Nor did the study properly consider project heterogeneity, other than for this small sample; future research could explicitly examine how various personality traits of project managers interact with different project types and characteristics. It may also be of future interest to explore how project outcomes shape project manager behaviour.

References

Ackerman, R., Witt, E., Donnellan, M., Trzesniewski, K., Robins, R. and Kashy, D., 2011. What does the narcissistic personality inventory really measure?. Assessment, 18(1), 67-87.

Ahadzie, D., Proverbs, D. and Olomolaiye, P., 2008. Towards developing competency-based measures for construction project managers: Should contextual behaviours be distinguished from task behaviours?. International Journal of Project Management, 26(6), 631-645.

Ahmad R., Nauman S., and Malik S. 2022. Tyrannical leader, Machiavellian follower, work withdrawal, and task performance: Missing links in construction projects. ASCE Journal of Construction and Engineering Management, 148(7), 04022045.

Akkermans, J., Chipulu, M., Ojiako, U. and Williams, T. 2020. Bridging the fields of careers and project management. Project Management Journal, 51(2), 123-134.

Al-Abrrow, H., Alnoor, A. and Abbas, S., 2019. The effect of organizational resilience and CEO's narcissism on project success: Organizational risk as mediating variable. Organization Management Journal, 16(1), 1-13.

Ali, T., Akbar, W. and Wachani, J., 2021. Narcissistic Leadership and Project Success in IT Industry: Moderating the role of Risk Management Technology. Journal of Entrepreneurship, Management, and Innovation, 3(2), 385-408.

Alzoubi, Y., Locatelli, G. and Sainati, T., 2023. Modern slavery in projects: A systematic literature review and research agenda. Project Management Journal, 54(3), pp.235-252.

Ashton, M., 2018. Personality traits and the inventories that Measure them. In Ashton, M (Ed.), Individual Differences and Personality (pp. 29-58). Academic Press, Third Edition, https://doi.org/10.1016/B978-0-12-809845-5.00002-0.

Atkinson, R., 1999. Project management: cost, time and quality, two best guesses and a phenomenon, its time to accept other success criteria. International Journal of Project Management, 17(6), 337-342.

Bader, M., Hilbig, B., Zettler, I. and Moshagen, M. 2023. Rethinking aversive personality: Decomposing the Dark Triad traits into their common core and unique flavors. Journal of Personality, 91(5), 1084-1109

Barbulescu, R. 2015. The strength of many kinds of ties: Unpacking the role of social contacts across stages of the job search process. Organization Science, 26(4), 1040-1058.

Baumeister, R., Bratslavsky, E., Finkenauer, C., and Vohs, K. 2001. Bad is stronger than good. Review of General Psychology, 5(4), 323–370.

Baysinger, M., Scherer, K. and LeBreton, J., 2014. Exploring the disruptive effects of psychopathy and aggression on group processes and group effectiveness. Journal of Applied Psychology, 99(1), pp.48-65.

Benson, A., Jordan, C. and Christie, A., 2016. Narcissistic reactions to subordinate role assignment: The case of the narcissistic follower. Personality and Social Psychology Bulletin, 42(7), 985-999.

Bergner, R., 2011. What is behavior? And so what?. New Ideas in Psychology, 29(2), 147-155.

Berry, C., Ones, D. and Sackett, P., 2007. Interpersonal deviance, organizational deviance, and their common correlates: a review and meta-analysis. Journal of Applied Psychology, 92(2), 410-424.

Blickle, G. and Schütte, N., 2017. Trait psychopathy, task performance, and counterproductive work behavior directed toward the organization. Personality and Individual Differences, 109, pp.225-231.

Boddy C., Ladyshewsky R., Galvin P. 2010. The influence of corporate psychopaths on corporate social responsibility and organizational commitment to employees. Journal of Business Ethics, 97, 1–19.

Bredillet, C. 2008. Exploring research in project management: Nine schools of project management research (part 4). Project Management Journal, 39(1), 2-6.

Bredillet, C., Tywoniak, S. and Dwivedula, R., 2015. What is a good project manager? An Aristotelian perspective. International Journal of Project Management, 33(2), 254-266.

Brown, R., Budzek, K., and Tamborski, M. 2009. On the meaning and measure of narcissism. Personality and Social Psychology Bulletin, 35, 951-964.

Bulkan, S. and Higgs, M., 2019, June. Psychopathic manager behaviour and workplace deviance: Moderated mediation model with revenge motive and attitude importance. In EURAM Annual Conference, Lisbon, Portugal.

Byrne, K.., Silasi-Mansat, C. and Worthy, D., 2015. Who chokes under pressure? The Big Five personality traits and decision-making under pressure. Personality and Individual Differences, 74, 22-28.

Campellone, T. and Kring, A., 2013. Who do you trust? The impact of facial emotion and behaviour on decision making. Cognition & Emotion, 27(4), 603-620.

Cattell, R., 1950. Personality: A systematic theoretical and factual study. New York: McGraw-Hill.

Cavazotte, F., Mansur, J. and Lanção, F. 2023. Beyond the paradox: Understanding how project leader humility and narcissism affect project outcomes. International Journal of Project Management, 41(6), 102500.

Cesinger, B., Gundolf, K., Hughes, M., Khedhaouria, A. and Montani, F., 2023. The bright and dark sides of the Dark Triad traits among senior managers: effects on organizational commitment. Review of Managerial Science, 17(5), 1731-1763.

Cheng, M., Dainty, A. and Moore, D., 2005. What makes a good project manager?. Human Resource Management Journal, 15(1), 25-37.

Chipulu, M., Neoh, J., Ojiako, U. and Williams, T., 2012. A multidimensional analysis of project manager competences. IEEE Transactions on Engineering Management, 60(3), 506-517.

Chipulu, M., Ojiako, U., and Thomas, A. 2024. Salient Complexities of Engaging External Consultants in Information Systems Projects. IEEE Transactions on Engineering Management, 71, 5212-5229.

Chipulu, M., Ojiako, U., Gardiner, P., Williams, T., Mota, C., Maguire, S., Shou, Y., Stamati, T. and Marshall, A., 2014. Exploring the impact of cultural values on project performance: The effects of cultural values, age and gender on the perceived importance of project success/failure factors. International Journal of Operations & Production Management, 34(3), 364-389.

Chipulu, M., Ojiako, U., Marshall, A., Williams, T., Bititci, U., Mota, C., Shou, Y., Thomas, A., Dirani, A.E., Maguire, S. and Stamati, T., 2019. A dimensional analysis of stakeholder assessment of project outcomes. Production Planning & Control, 30(13), 1072-1090.

Chipulu, M., Ojiako, U., Marshall, A., Williams, T., Neoh, J., Mota, C., and Shou, Y. 2016. Building Cultural Intelligence: Insights from project management job advertisements. Production Planning and Control, 27 (3), 133-147.

Chipulu, M., Ojiako, U., Williams, T. and Akkermans, J., 2017. Career paths and career systems for project managers. Project Management Journal, 48(6), 3-4.

Christie, R., and Geis, F. 1970. Studies in Machiavellianism. New York, NY: Academic Press.

Colvin, C. and Funder, D., 1991. Predicting personality and behavior: a boundary on the acquaintanceship effect. Journal of Personality and Social Psychology, 60(6), 884-894.

Croom, S., Fritzon, K. and Brooks, N., 2021. Personality differences and buyer-supplier relationships: Psychopathy in executives, gender differences and implications for future research. Journal of Purchasing and Supply Management, 27(4), 100721.

Dahling, J., Whitaker, B., and Levy, P. 2009. The development and validation of a new Machiavellianism scale. Journal of Management, 35, 219–257.

Davis, K. 2014. Different stakeholder groups and their perceptions of project success. International Journal of Project Management. 32(2), 189-201.

Davis, K. and Pinto, J., 2022. The corruption of project governance through normalization of deviance. IEEE Transactions on Engineering Management, 71, 2447-2461.

de Almeida Rodrigues, T., Ojiako, U., Marshall, A., de Miranda Mota, C.M., Dweiri, F.T., Chipulu, M., Ika, L. and AlRaeesi, E.J.H., 2024. Risk factor prioritization in infrastructure handover to operations. International Journal of Project Management, 42(1), 102558.

Den Hartog, D., De Hoogh, A. and Belschak, F., 2020. Toot your own horn? Leader narcissism and the effectiveness of employee self-promotion. Journal of Management, 46(2), 261-286.

DeShong, H., Helle, A., Lengel, G., Meyer, N., and Mullins-Sweatt, S. 2017. Facets of the dark triad: Utilizing the five-factor model to describe Machiavellianism. Personality and Individual Differences, 105, 218-223.

Diener, E., and Lucas, R. 2019. Personality traits. Gen Psychol Required Read.

Doerfler, S., Tajmirriyahi, M., Ickes, W. and Jonason, P., 2021. The self-concepts of people with Dark Triad traits tend to be weaker, less clearly defined, and more state-related. Personality and Individual Differences, 180, p.110977.

Dvir, D., Sadeh, A. and Malach-Pines, A. 2006. Projects and project managers: The relationship between project managers' personality, project types, and project success. Project Management Journal, 37(5), 36-48.

Faridi, A. and El-Sayegh, S. 2006. Significant factors causing delay in the UAE construction industry. Construction Management and Economics, 24(11), 1167-1176.

Fatfouta, R. 2019. Facets of narcissism and leadership: A tale of Dr. Jekyll and Mr. Hyde? Human Resource Management Review, 29(4), 100669.

Fehr, B., Samsom, D. and Paulhus, D., 2013. The construct of Machiavellianism: Twenty years later. Advances in personality assessment, pp.77-116.

Fishbein, M. 2004., Intentional Behavior. In Spielberger, C. (Ed.), Encyclopaedia of Applied Psychology (pp. 329-334). Elsevier. https://doi.org/10.1016/B0-12-657410-3/00054-4

Flyvbjerg, B., 2021. Top ten behavioral biases in project management: An overview. Project Management Journal, 52(6531-546.

Forsyth, D., Banks, G. and McDaniel, M. 2012. A meta-analysis of the Dark Triad and work behavior: a social exchange perspective. Journal of Applied Psychology, 97(3), 557-579

Foster, J., Shenesey, J. and Goff, J., 2009. Why do narcissists take more risks? Testing the roles of perceived risks and benefits of risky behaviors. Personality and Individual Differences, 47(8), 885-889.

Furnham, A., Richards, S.C. and Paulhus, D., 2013. The Dark Triad of personality: A 10 year review. Social and personality psychology compass, 7(3), 199-216.

Furr, R. 2009. Personality psychology as a truly behavioural science. European Journal of Personality, 23(5), 369-401.

Furr, R., and Funder, D. 2007. Behavioral observation. In R. Robins, C. Fraley, and R. Krueger (Eds.), Handbook of research methods in personality psychology (pp. 273–291). New York: Guilford Press.

Gallagher, E., Mazur, A. and Ashkanasy, N. 2015. Rallying the troops or beating the horses? How project-related demands can lead to either high-performance or abusive supervision. Project Management Journal, 46(3), 10-24.

Geisen, E., 2022. Improve data quality by using a commitment request instead of attention checks. https://www.qualtrics.com/blog/attention-checks-and-data-quality/, accessed 11/03/24.

Global Media Insight. 2025. United Arab Emirates (UAE) population statistics 2025. https://www.globalmediainsight.com/blog/uae-population-statistics/, accessed 23/06/25.

Graham, J., 1996. Machiavellian project managers: do they perform better?. International Journal of Project Management, 14(2), 67-74.

Grant, K., Baumgardner, C. and Shane, G., 1997. The perceived importance of technical competence to project managers in the defense acquisition community. IEEE Transactions on Engineering Management, 44(1), 12-19.

Greer, T. and Carden, L. 2021. Exploring the gender wage gap among project managers: A multi-national analysis of human capital and national policies. International Journal of Project Management, 39(1), 21-31.

Hall, J. and Benning, S. 2006. The "successful" psychopath: Adaptive and subclinical manifestations of psychopathy in the general population. In C. J. Patrick (Ed.), Handbook of Psychopathy (pp. 459–478). New York: Guilford Press.

Hallowell, M. and Gambatese, J. 2010. Qualitative research: Application of the Delphi method to CEM research. ASCE Journal of Construction Engineering and Management, 136(1), 99-107.

Hardin, B., and Smith, C. 2022. Darker by the day: Daily variability in dark personality traits. Personality and Individual Differences, 185, 111248.

Hare, R. 2003. Manual for the Revised Psychopathy Checklist (2nd ed.). Toronto, ON: Multi-Health Systems.

Hassan, M., Bashir, S. and Abbas, S. 2017. The impact of project managers' personality on project success in NGOs: The mediating role of transformational leadership. Project Management Journal, 48(2), 74-87.

Hawley P. 2003. Prosocial and coercive configurations of resource control in early adolescence: A case for the well-adapted Machiavellian. Merrill-Palmer Quarterly, 49, 279–309.

Hensley, R. 1999. A review of operations management studies using scale development techniques. Journal of Operations Management, 17(3), 343-358.

Higgs, M., and Dulewicz, V. 2024. Leading with emotional intelligence effective change implementation in today's complex context. Pub. Palgrave Macmillan, 2nd Edition

Higgs, M., Bulkan, S., and Ererdi, C. 2023. The Bad, The Bad, and the Ugly: Towards an integrated model of 'dark leadership. Proceedings of the British Academy of Management, British Academy of Management Conference, Sussex.

Horne, P. and Lowe, C., 1997. Toward a theory of verbal behavior. Journal of the Experimental Analysis of Behavior, 68(2), 271-296.

Hudson, N., 2023. Lighten the darkness: Personality interventions targeting agreeableness also reduce participants' levels of the dark triad. Journal of Personality, 91(4), 901-916.

Ika, L.A. and Pinto, J., 2022. The "re-meaning" of project success: Updating and recalibrating for a modern project management. International Journal of Project Management, 40(7), 835-848.

Itzkovich, Y., Heilbrunn, S. and Aleksic , A. 2020. Full range indeed? The forgotten dark side of leadership. Journal of Management Development, 39(1), 97–124.

Jackob, N., Roessing, T., and Petersen, T. 2016. Effects of verbal and non-verbal elements in communication. In Saussure, L and Rocci, A. (Eds.), Verbal communication (pp. 39–53). De Gruyter Mouton.

Jarman, R. 2013. Psychopathy as a phenomenon of interest in information systems research, ECIS 2013 Completed Research. 84, http://aisel.aisnet.org/ecis2013_cr/84, accessed 29/06/24.

Johns, R., 2010. Likert items and scales. Survey question bank: Methods fact sheet, 1(1), 11-28.

Johnson, R. and Babu, R. 2020. Time and cost overruns in the UAE construction industry: a critical analysis. International Journal of Construction Management, 20(5), 402-411.

Jonason, P. and Webster, G. 2010. The dirty dozen: A concise measure of the dark triad. Psychological Assessment, 22(2), 420–432.

Jonason, P., Slomski, S. and Partyka, J., 2012. The Dark Triad at work: How toxic employees get their way. Personality and Individual Differences, 52(3), 449-453.

Jones, D. and Paulhus, D. 2010. Differentiating the Dark Triad within the Interpersonal Circumplex. In L. M. Horowirz, & S. N. Strack (Eds.), Handbook of interpersonal theory and research (pp. 249–269). New York: Wiley & Sons.

Jones, D., and Paulhus, D. 2014. Introducing the Short Dark Triad (SD3): A Brief Measure of Dark Personality Traits. Assessment, 21(1), 28–41.

Jones, D. and Paulhus, D.L., 2010. Different provocations trigger aggression in narcissists and psychopaths. Social Psychological and Personality Science, 1(1), 12-18.

Justman, S. 2021. The guilt-free psychopath. Philosophy, Psychiatry, & Psychology, 28(2), 87-104.

Kandler, C., and Bleidorn, W., 2015. Personality differences and development: Genetic and environmental contributions. In Wright J. (Ed.), International encyclopaedia of the social & behavioral sciences (2nd ed., pp. 884–890). Elsevier. https://doi.org/10.1016/B978-0-08-097086-8.25011-3.

Kassa, R., Ogundare, T., Lines, B., Smithwick, J. and Sullivan, K., 2024. Comparative Analysis of Human Traits and Tendencies: General vs. Specialty Contractor Project Managers. International Journal of Construction Education and Research, 20 (3), 284-300.

Kassa, R., Ogundare, T., Lines, B., Smithwick, J. and Sullivan, K., 2024. Comparative Analysis of Human Traits and Tendencies: General vs. Specialty Contractor Project Managers. International Journal of Construction Education and Research, 20 (3), 284-300.

Katz, R.. 1955. Skills of an effective administrator. Harvard Business Review, 33(1), 33–42.

Kirkland, M. 2022. Developing nuclear energy with advanced cost recovery: learning from the V.C. Summer project abandonment. South Carolina Law Review, 73(4), 1083-1114.

Kowalski, C., Rogoza, R., Vernon, P. and Schermer, J., 2018. The Dark Triad and the self-presentation variables of socially desirable responding and self-monitoring. Personality and individual Differences, 120, 234-237.

Landay, K., Harms, P. and Credé, M. 2019. Shall we serve the dark lords? A meta-analytic review of psychopathy and leadership. Journal of Applied Psychology, 104(1), 183-196.

Levenson, M.., Kiehl, K., and Fitzpatrick, C. 1995. Assessing Psychopathic Attributes in a Noninstitutionalized Population. Journal of Personality and Social Psychology, 68(1), 151–158.

Lievens, F., Chasteen, C., Day, E. and Christiansen, N., 2006. Large-scale investigation of the role of trait activation theory for understanding assessment centre convergent and discriminant validity. Journal of Applied Psychology, 91(2247-258.

Likert, R. 1932. A Technique for the Measurement of Attitudes. Archives of Psychology, 22(140), 1–55.

Lin, H., Sui, Y., Ma, H., Wang, L. and Zeng, S., 2018. CEO narcissism, public concern, and megaproject social responsibility: Moderated mediating examination. ASCE Journal of Management in Engineering, 34(4), 04018018.

Littrell, S., Fugelsang, J. and Risko, E., 2020. Overconfidently underthinking: Narcissism negatively predicts cognitive reflection. Thinking & Reasoning, 26(3), 352-380.

Litvin, B., 2019. Mapping rule and subversion: Perspective and the democratic turn in Machiavelli scholarship. European Journal of Political Theory, 18(1), 3-25.

Locatelli, G., Konstantinou, E., Geraldi, J. and Sainati, T., 2022a. The dark side of projects: Uncovering slavery, corruption, criminal organizations, and other uncomfortable topics. Project Management Journal, 53(4), 327-330.

Locatelli, G., Konstantinou, E., Geraldi, J. and Sainati, T., 2022b. The dark side of projects: Dimensionality, research methods, and agenda. Project Management Journal, 53(4), pp.367-381.

Locatelli, G., Mariani, G., Sainati, T. and Greco, M., 2017. Corruption in public projects and megaprojects: There is an elephant in the room!. International journal of project management, 35(3), pp.252-268.

Lubit, R. 2002. The long-term organizational impact of destructively narcissistic managers. Academy of Management Executive, 16, 127–138.

Lynch, J., McGregor, A. and Benson, A., 2022. My way or the highway: Narcissism and dysfunctional team conflict processes. Group Processes & Intergroup Relations, 25(4), 1157-1171.

Maitner, A., 2023. Perceptions and explanations of status in the United Arab Emirates: The role of ascribed and achieved characteristics. Group Processes & Intergroup Relations, 26(1), 223-242.

Malach-Pines, A., Dvir, D. and Sadeh, A. 2009. Project manager-project (PM-P) fit and project success. International Journal of Operations & Production Management, 29 (3), 268-291.

Marcus, D. and Zeigler-Hill, V. 2015. A big tent of dark personality traits. Social and Personality Psychology Compass, 9(8), 434-446.

Marsh, A. and Cardinale, E., 2012. Psychopathy and fear: Specific impairments in judging behaviors that frighten others. Emotion, 12(5), 89-898.

Matell, M. and Jacoby, J., 1972. Is there an optimal number of alternatives for Likert-scale items? Effects of testing time and scale properties. Journal of Applied Psychology, 56(6), 506-509.

Mathieu, C., 2021. Dark personalities in the workplace. Pub. Academic Press (Elsivier), London.

Mayer, J., Salovey, P., and Caruso. D. 2000. Emotional intelligence as zeitgeist, as personality, and as a mental ability: The handbook of emotional intelligence, Prentice Hall, NJ, USA.

Mazur, A., Pisarski, A., Chang, A. and Ashkanasy, N., 2014. Rating defence major project success: The role of personal attributes and stakeholder relationships. International Journal of Project Management, 32(6), 944-957.

Miller, J.., Vize, C., Crowe, M. and Lynam, D., 2019. A critical appraisal of the dark-triad literature and suggestions for moving forward. Current Directions in Psychological Science, 28(4), 353-360.

Moshagen, M., Hilbig, B. and Zettler, I., 2018. The dark core of personality. Psychological review, 125(5), 656-688.

Muris, P., Merckelbach, H., Otgaar, H. and Meijer, E., 2017. The malevolent side of human nature: A meta-analysis and critical review of the literature on the dark triad (narcissism, Machiavellianism, and psychopathy). Perspectives on Psychological Science, 12(2), 183-204.

Nagahi, M., Hossain, N., El Amrani, S., Jaradat, R., Khademibami, L., Goerger, S.R. and Buchanan, R., 2021. Investigating the influence of demographics and personality types on practitioners' level of systems thinking skills. IEEE Transactions on Engineering Management, 69(6), 3923-3937.

Naseer, S., Raja, U., Syed, F., Donia, M., and Darr, W. 2016. Perils of being close to a bad leader in a bad environment: Exploring the combined effects of despotic leadership, leader member exchange, and perceived organizational politics on behaviors. The Leadership Quarterly, 27(1), 14-33.

Nenadić, I., Lorenz, C. and Gaser, C. 2021. Narcissistic personality traits and prefrontal brain structure. Scientific Reports, 11(1): https://www.nature.com/articles/s41598-021-94920-z.

Newman, J., 1998. Psychopathic behavior: An information processing perspective. In Psychopathy: Theory, research and implications for society (pp. 81-104). Dordrecht: Springer Netherlands.

Ojiako, U., 2023. Misrepresentations and criminal liability in project reporting: a case study of the failed Virgil C. summer project. ASCE Journal of Legal Affairs and Dispute Resolution in Engineering and Construction, 15(3), 04523023.

Ojiako, U., Al-Mhdawi, M.K.S., Ubaid, A., Chipulu, M., Adedeji, T. and AlRaeesi, E.J.H., 2025. Intentional Misrepresentations of Project Information. ASCE Journal of Legal Affairs and Dispute Resolution in Engineering and Construction, 17(4), p.03125003.

Ojiako, U., AlRaeesi, E., Chipulu, M., Marshall, A. and Bashir, H. 2024. Innovation readiness in public sector service delivery: an exploration. Production Planning & Control, 35 (5), 437-460.

Ojiako, U., Bititci, U., Marshall, A., Chipulu, M., Manville, G., Muthalagu, S.J. and Farrington, T., 2023. Ambiguity in performance management systems of complex multi-stakeholder organisations. Production Planning & Control, 34(14), 1393-1413.

Ojiako, U., Chipulu, M., Marshall, A., Ashleigh, M., Maguire, S., Williams, T. and Obokoh, L., 2015. Heterogeneity and perception congruence of project outcomes. Production Planning & Control, 26(11), 858-873.

Ojiako, U., Higgs, M., Al Naqbi, K.K.M., Al-Mhdawi, M.K.S., Chipulu, M., Williams, T. and Adedeji, T., 2026. Dark personality traits in project management: A bibliometric analysis and agenda for future research. Project Leadership and Society, 7, 100214.

Paulhus, D. 2014. Toward a taxonomy of dark personalities. Current Directions in Psychological Science, 23(6), 421-426.

Paulhus, D. and Vazire, S. 2007. The self-report method. Handbook of Research Methods in Personality Psychology, 1, 224-239

Paulhus, D. and Williams, K. 2002. The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. Journal of Research in Personality, 36(6), 556–563.

Paulhus, D., 2001. Normal narcissism: Two minimalist accounts. Psychological inquiry, 12(4), 228-230.

Pinto, J. and Patanakul, P. 2015. When narcissism drives project champions: A review and research agenda. International Journal of Project Management, 33(5), 1180-1190.

Pinto, J., Davis, K., Ika, L., Jugdev, K. and Zwikael, O., 2022. Coming to terms with project success: Current perspectives and future challenges. International Journal of Project Management, 40(7), 831-834.

Pollack, J., Helm, J. and Adler, D., 2018. What is the Iron Triangle, and how has it changed?. International Journal of Managing Projects in Business, 11(2), 527-547.

Prater, J. and Kirytopoulos, K., 2024. Project managers: old, grumpy and suspicious or just "once bitten, twice shy?". International Journal of Managing Projects in Business, 17(2), 201-224.

Preston, C. and Colman, A. 2000. Optimal number of response categories in rating scales: reliability, validity, discriminating power, and respondent preferences. Acta Psychologica, 104(2000), 1-15.

Rafique, M., Jaafar, M., Zafar, A. and Ahmed, S. 2023. Time pressure, emotional exhaustion and project manager abusive supervision in the construction industry: the role of psychological resilience. International Journal of Organization Theory & Behavior, 26 (1/2), 132-151.

Ramkissoon, H., 2022. Prosociality in times of separation and loss. Current opinion in Psychology, 45, 101290.

Ramos-Vera, C., García O'Diana, A., Calle, D., Basauri-Delgado, M., Bonfá-Araujo, B., Lima-Costa, A.R., Duradoni, M., Nasir, S., Calizaya-Milla, Y.E. and Saintila, J., 2024. A network analysis approach to understanding centrality and overlap of 21 dark triad items in adults of 10 countries. Psychology Research and Behavior Management, 17, 467-483.

Rashid, A. and Boussabiane, H., 2021. Conceptualizing the influence of personality and cognitive traits on project managers' risk-taking behaviour. International Journal of Managing Projects in Business, 14(2), 472-496.

Raskin, R. and Terry, H. 1988. A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. Journal of Personality and Social Psychology, 54, 890–902.

Rauthmann, J. 2012. The Dark Triad and interpersonal perception: Similarities and differences in the social consequences of narcissism, Machiavellianism, and psychopathy. Social Psychological and Personality Science, 3, 487–496.

Rauthmann, J. and Kolar, G. 2012. How "dark" are the Dark Triad traits? Examining the perceived darkness of narcissism, Machiavellianism, and psychopathy. Personality and Individual Differences, 53(7), 884-889.

Rauthmann, J. and Will, T. 2011. Proposing a multidimensional Machiavellianism conceptualization. Social Behavior and Personality: An International Journal, 39(3), 391-403.

Ravindran, S., Subramaniam, A., and Sambasivan, M. 2024. Unmasking the Connection Between Managerial Narcissism, Machiavellianism and Leader–Member Exchange in the Singaporean Construction Industry: Managerial Corporate Psychopathic Behaviour as a Mediator. Vision, 0(0). https://doi.org/10.1177/09722629241246925

Rehan, A., Thorpe, D. and Heravi, A., 2024. Project manager's leadership behavioural practices–A systematic literature review. Asia Pacific Management Review, 29(2), pp.165-178.

Robinson, M. and Routledge, C. 2015., Personality and Self. In Wright J. D. (Ed.), International Encyclopaedia of the Social & Behavioral Sciences (2nd ed., pp. 814-820). Elsevier.

Rodero, E., Larrea, O., Rodríguez-de-Dios, I. and Lucas, I., 2022. The expressive balance effect: perception and physiological responses of prosody and gestures. Journal of Language and Social Psychology, 41(6), 659-684.

Rogoza, R., Kowalski, C., Saklofske, D. and Schermer, J. 2022. Systematizing dark personality traits within broader models of personality. Personality and Individual Differences, 186, 111343.

Rozin, P. and Royzman, E., 2001. Negativity bias, negativity dominance, and contagion. Personality and Social Psychology Review, 5(4), 296-320.

Saarni, C. 2000. The Handbook of Emotional Intelligence Emotional Competence: A Developmental Perspective, Pub. Waveland Press

Salovey, P., Mayer, J.D., Caruso, D. and Yoo, S.H., 2002. The positive psychology of emotional intelligence. Handbook of positive psychology, 159, p.171. In C.R. Snyder, S.J. Lopez (Eds.), Handbook of positive psychology, Oxford University Press, New York, pp. 159-171.

Schmid, E., Pircher Verdorfer, A. and Peus, C., 2019. Shedding light on leaders' self-interest: Theory and measurement of exploitative leadership. Journal of Management, 45(4), 1401-1433.

Schyns, B. 2015. Dark Personality in the Workplace: Introduction to the Special Issue, 64(1), 1–14.

Sedlár, M. and Gurňáková, J., 2025. Decision-making styles in medical students and healthcare professionals: The roles of personality traits and socio-emotional intelligence factors. The Journal of Psychology, 159 (2), 71-91.

Silva, D., Junça-Silva, A. and Pinheiro, P., 2025. Folie à deux? How Mavericks shape the relationship between the dark triad and negative deviant behaviours through malevolent creativity. Personality and Individual Differences, 233,112877.

Singh, H. and Singh, A., 2002. Principles of complexity and chaos theory in project execution: A new approach to management. Cost Engineering, 44(12), 23-33

Sonnentag, S. and Frese, M., 2002. Performance concepts and performance theory. Psychological management of individual performance, 23(1), 3-25.

Stanton, K., Levin-Aspenson, H., Emery, N., Willis, L., Myntti, W., and McDonnell, C., 2023. Understanding Broader Community Perspectives on the Scientific Accuracy and Stigma of Personality Trait Labels. https://doi.org/10.31219/osf.io/qcd2r

Stewart, G., Fulmer, I. and Barrick, M., 2005. An exploration of member roles as a multilevel linking mechanism for individual traits and team outcomes. Personnel Psychology, 58(2), 343-365.

Stingl, V., Gilchrist, A., Lawani, A., Flin, R. and Zwikael, O., 2025. Call for papers project cognition as the foundation of project behaviour. International Journal of Project Management, 43 (2), 102691.

Suchak, V., Kini, K. and Kakunje, A., 2022. Narcissism between generation X and generation Y (millennials)–A cross-sectional comparative study. Annals of Indian Psychiatry, 6(3), 249-253.

Szabó, Z.P., Czibor, A., Restás, P. and Bereczkei, T., 2018. "The Darkest of all" The relationship between the Dark Triad traits and organizational citizenship behavior. Personality and Individual Differences, 134, 352-356.

Taherdoost, H. 2019. What Is the Best Response Scale for Survey and Questionnaire Design; Review of Different Lengths of Rating Scale, Attitude Scale, Likert Scale. International Journal of Academic Research in Management, 8(1), 1-12.

Tan, J., 2022. Don't Just Focus on Your Technical Skills: Focus On Your People Skills. Harvard Business Review, December 27, 2022. https://hbr.org/2022/12/dont-just-focus-on-your-technical-skills-focus-on-your-people-skills, accessed 08/02/26

TeamStage. 2024. Millennials in the Workplace Statistics: Generational Disparities in 2024. https://teamstage.io/millennials-in-the-workplace-statistics/, accessed 04/05/24.

The Culture Factor. 2023. Country Comparison: United Arab Emirates. https://www.theculturefactor.com/country-comparison-tool?countries=united+arab+emirates, accessed 04/02/23

Thielmann, I., Hilbig, B. and Zettler, I. 2022. The dispositional basis of human prosociality. Current Opinion in Psychology, 43, 289-294.

Tuncdogan, A., Acar, O. and Stam, D., 2017. Individual differences as antecedents of leader behavior: Towards an understanding of multi-level outcomes. The Leadership Quarterly, 28(1), 40-64.

Turner, R., 2022. Forty years of organizational behaviour research in project management. International Journal of Project Management, 40(1), 9-14.

Van Gerven, E., De Hoogh, A., Hartog, D. and Belschak, F., 2026. The Dark Side of Variability: Developing a Measure of Perceived Leader Inconsistency. Journal of Business Ethics, 203, 377–404

van Woerkom, M., Bauwens, R., Gürbüz, S. and Brouwers, E., 2024. Enhancing person-job fit: who needs a strengths-based leader to fit their job?. Journal of Vocational Behavior, 154, 104044.

Varajão, J. and Takagi, N., 2024. Information systems and project managers' technical competences-perceived importance and influencing variables. International Journal of Business Information Systems, 45(3), 279-296.

Wang, C., Xu, B., Zhang, S. and Chen, Y., 2016. Influence of personality and risk propensity on risk perception of Chinese construction project managers. International Journal of Project Management, 34(7), 1294-1304.

Wang, N., Jiang, D. and Pretorius, L., 2016. Conflict-resolving behaviour of project managers in international projects: A culture-based comparative study. Technology in Society, 47, 140-147.

Wang, T., Abdallah, M., Clevenger, C. and Monghasemi, S., 2021. Time–cost–quality trade-off analysis for planning construction projects. Engineering, Construction and Architectural Management, 28(1), 82-100.

Webster, F. 1994. The project manager - the technical skills. PM Network, 8(3), 48–50.

Westerman, J., Bergman, J., Bergman, S. and Daly, J., 2012. Are universities creating millennial narcissistic employees? An empirical examination of narcissism in business students and its implications. Journal of Management Education, 36(1), 5-32.

Williams, T. 2022. Project Success. In, Williams, T. M., Samset, K., & Volden, G. H. 2022. The Front-end of Large Public Projects: Paradoxes and Ways Ahead. Routledge, Abingdon UK.

Wilson D., Near D. and Miller R. 1998. Individual differences in Machiavellianism as a mix of cooperative and exploitative strategies. Evolution and Human Behavior, 19: 203–212.

Wu, J., Luan, S. and Raihani, N., 2022. Reward, punishment, and prosocial behavior: Recent developments and implications. Current Opinion in Psychology, 44, 117-123.

Xiong, Q., Pan, Q., Nie, S., Guan, F., Nie, X. and Sun, Z. 2023. How does collective moral judgment induce unethical pro-organizational behaviors in infrastructure construction projects: The mediating role of Machiavellianism. Behavioral Sciences, 13(1), 57.

Yang, L., Huang, C. and Wu, K. 2011. The association among project manager's leadership style, teamwork and project success. International Journal of Project Management, 29(3), 258-267.

Zell, E. and Lesick, T. 2022. Big five personality traits and performance: A quantitative synthesis of 50+ meta-analyses. Journal of Personality, 90(4), 559-573.

Zheng, J., Gu, Y., Li, P., Luo, L. and Wu, G., 2025. Research evolution and thematic breakthroughs in project leadership: a bibliometric analysis. Engineering, Construction and Architectural Management, 32(3), 1970-2002.

Zwikael, O. and Meredith, J.R., 2018. Who's who in the project zoo? The ten core project roles. International Journal of Operations & Production Management, 38(2), 474-492.

Appendix A: The '*Dark triad*' questionnaire/measures

Personality Trait	Question	Source
Narcissism	Project managers tend to want others to admire them.	Jonason and Webster (2010)
Narcissism	Project managers tend to want others to pay attention to them.	Jonason and Webster (2010)
Narcissism	Project managers tend to expect special favours from others.	Jonason and Webster (2010)
Narcissism	Project managers tend to seek prestige or status.	Jonason and Webster (2010)
Narcissism	Project managers tend to feel that things are owed to them.	Jonason and Webster (2010)
Narcissism	Project managers tend to try to be dominant in social situations.	Jonason and Webster (2010)
Narcissism	Project managers tend to be grandiose or pompous.	Jonason and Webster (2010)

Narcissism	Project managers tend to feel that they are more special than others.	Jonason and Webster (2010)
Narcissism	Project managers tend to feel that they better than others.	Jonason and Webster (2010)
Narcissism	Project managers tend to be egocentric.	Jonason and Webster (2010)
Narcissism	Project managers will be successful.	Raskin and Terry (1988)
Narcissism	Project managers have natural talent for influencing people.	Raskin and Terry (1988)
Psychopathy	Project managers tend to lack remorse.	Jonason and Webster (2010)
Psychopathy	Project managers tend to not be too concerned with morality or the morality of their actions.	Jonason and Webster (2010)
Psychopathy	Project managers like to get revenge on authorities. Payback needs to be quick and nasty.	Jones and Paulhus (2014)
Psychopathy	Project managers hate movies that show blood and guts (Callous Affect).	Jones and Paulhus (2014)
Psychopathy	People who mess with project managers always regret it (Antisocial Behaviour).	Jones and Paulhus (2014)
Psychopathy	For project managers, what's right is whatever they can get away with.	Jones and Paulhus (2014)
Psychopathy	People who are stupid enough to get ripped off usually deserve it.	Levenson et al. (1995)
Psychopathy	Project managers tell other people what they want to hear so that they will do what they want them to do.	Levenson et al. (1995)
Psychopathy	Project managers would be upset if their success came at someone else's expense.	Levenson et al. (1995)
Psychopathy	Project managers often admire a really clever scam.	Levenson et al. (1995)
Psychopathy	Project managers make a point of trying not to hurt others in pursuit of their goals.	Levenson et al. (1995)
Psychopathy	Project managers enjoy manipulating other people's feelings.	Levenson et al. (1995)
Machiavellianism	Project managers have used deceit or lied to get their way.	Jonason and Webster (2010)
Machiavellianism	Project managers have used flattery to get their way.	Jonason and Webster (2010)
Machiavellianism	Project managers tend to exploit others towards their end.	Jonason and Webster (2010)
Machiavellianism	Generally speaking, people won't work hard unless they have to (Cynicism).	Jones and Paulhus (2014)
Machiavellianism	Most people are basically good and kind (reversal) (Cynicism).	Jones and Paulhus (2014)
Machiavellianism	It's better to be totally honest than to be successful (reversal) (Cynicism).	Jones and Paulhus (2014)
Machiavellianism	Whatever it takes, project managers must get the important people on their side (Coalition Building).	Jones and Paulhus (2014)
Machiavellianism	Project managers should wait for the right time to get back at people (Planning).	Jones and Paulhus (2014)
Machiavellianism	Most people deserve respect (reversal) (Cynicism).	Jones and Paulhus (2014)
Machiavellianism	Project managers are willing to sabotage the efforts of other people if they threaten their goals.	Dahling et al. (2009)
Machiavellianism	The only good reason to talk to others is to get information that project managers can use to their benefit.	Dahling et al. (2009)

Machiavellianism	Project managers always let people know their honest intentions before they take action.	Dahling et al. (2009)
Project success	The project you were referring to was completed within schedule.	General project management literature.
Project success	The project you were referring to was completed within budget.	
Project success	The project you were referring to was delivered as per the specified quality and/or the required standards.	