

**The Dark Core and Leaders: Leaders Self-Reported Personality and Workplace  
Behaviours**

**by**

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A Thesis Submitted to

Saint Mary's University, Halifax, Nova Scotia

In Partial Fulfillment of the Requirements for

The Degree Master of Science in Applied Psychology

July 2023, Halifax, Nova Scotia

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## **Abstract**

The Dark Core and Leaders: Leaders Self-Reported Personality and Workplace Behaviours

By Isaiah Hipel

Abstract: Using a recently developed measure of the Dark Core at Work (DCW) I had two objectives in my research. First, based on a sample of 302 leaders, I aimed to establish a relationship between leaders' scores on the DCW scale and organizationally relevant outcomes (e.g., toxic leadership). Second, I assessed whether the DCW scale provided incremental prediction in organizationally relevant outcomes compared to an established measure of the Dark Tetrad at Work (DTW) and the H-H scale of the HEXACO. I found that the DCW was related to all organizational outcomes except for organizational citizenship. Further, the DCW accounted for incremental variance above and beyond the H-H subscale and the DTW scales for all outcomes except for organization oriented organizational citizenship behaviours. Establishing a context specific measure of the Dark Core provides researchers of workplace behaviour with a measure to assess the Dark Core at work.

[July 5<sup>th</sup>, 2023]

## **Acknowledgements**

First and foremost, I would like to thank my wonderful supervisor, Dr. Kevin Kelloway, for teaching me the ins and outs of research. Your insights, expertise, and mentorship has pushed me to think more critically, and explore multiple perspectives throughout the entirety of my thesis and graduate studies. It is something that will stick with me for the rest of my life.

To my committee members, Dr. Nicolas Roulin and Dr. Eden Raye Lukacik for your expertise, and for pushing me to think harder about my work. You have both influenced me to challenge my own thinking and view my thesis through multiple lenses which has helped me to produce better work.

To my family and friends who have supported me throughout the entirety of my degree and have had to engage with me while I feel stressed – I thank you.

A huge thank you to my sister, Zoe, who has supported and encouraged me more than I could have asked for despite having to live with me through the entirety of this process. A thank you to my mom, Robin, for her willingness to listen at any time. No matter how many times a day I called you always listened. A thank you to my dad, Mark, for his sincerity and empathy and for keeping me calm in moments of crisis. I love all of you, always.

Lastly, a special thank you to Marissa whose unwavering support and presence in my life has had such a positive influence, I am so appreciative of you.

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## **The Dark Core and Leaders: Leaders Self-Reported Personality and Workplace Behaviours**

The dark side of human behaviour holds a special fascination to many people. Researchers, practitioners, and laypeople have shown much interest in what drives individuals to engage in ethically, morally, and socially questionable behaviours. Researchers from various disciplines of psychology have aimed to describe, explain, and predict such negatively connotated activities. In the traditional categorical approaches of clinical psychology, narcissistic, antisocial, borderline, and paranoid tendencies are particularly relevant examples of socially unpleasant psychopathology, and they are associated with personality disorders (in subclinical manifestations referred to as personality accentuations; APA, 2013). In personality psychology, stable dispositions towards socially and ethically aversive behaviours are typically summarized under the umbrella term “dark” traits with the “Dark Tetrad” (Chabrol et al., 2009) components (narcissism, Machiavellianism, psychopathy, and sadism) as a prominent example. Research interest in “dark” traits has peaked in recent years (Muris et al., 2017), and a growing number of traits with subtle differences have since been introduced under the umbrella term dark traits (e.g., Johnson et al., 2019; Marcus et al., 2014; Marcus & Zeigler-Hill, 2015).

Recognition that “dark” traits have a similar core and that this common core can also serve as a common cause explanation for instances of socially unpleasant psychopathology (Muris et al., 2017; O’Boyle et al., 2012) is a significant, recent step towards conceptual unification. A comprehensive account of this common core of “dark” traits was provided by Moshagen et al. (2018) in the *Dark Factor of Personality (D) framework*. Currently there are several studies that provide evidence for the conceptualization of D as the underlying disposition of all aversive traits (Hilbig et al., 2021; Moshagen et al., 2018; Moshagen, Zettler, & Hilbig,

2020; Moshagen et al., 2020; Zettler et al., 2020), however there are few studies that have researched the Dark Core in the workplace (e.g., Tokarev et al., 2017).

Given the paucity of research conducted in organizations on the Dark Core, the focus of my research was on the Dark Core in the workplace. Specifically, my research had two objectives. First, I aimed to establish a relationship between scores on the DCW (Wang et al., 2023) measure and organizationally relevant behaviours in a population of leaders. This would aid in providing evidence for criterion related validity of the scale. The second aim of my research was to compare the ability of the DCW (Wang et al., 2023) compared to the Dark Tetrad and H-H subscale of the HEXACO to predict negative workplace behaviours (e.g., bullying). Specifically, I was interested in the incremental prediction of the DCW over and above these previously established measures.

### **The Dark Traits**

The degree of theoretical integration of the “dark” personality literature into the larger area of personality psychopathology remains quite restricted (Miller & Campbell, 2008), despite the evident overlap in what “dark” features and instances of socially aversive psychopathology attempt to account for. This is particularly harmful because “dark” traits, although primarily found in the subclinical range (Paulhus, 2014), are linked to a higher risk of maladjustment, including aggression and delinquency (e.g., Geerlings et al., 2020; Muris et al., 2017), socioemotional deficits and interpersonal issues (e.g., Miao et al., 2019), as well as psychopathology (e.g., Blonigen et al., 2005; Dotterer et al., 2017).

The Dark Triad includes three traits: Machiavellianism, narcissism, and psychopathy. Recently, the Dark Triad was expanded into the Dark Tetrad by adding the construct of sadism. Sadism was found to add predictive validity beyond the original three constructs (Buckels et al.,



2013; Chabrol et al., 2009). Individuals who are high in Machiavellianism use manipulative tactics to get their way, lie frequently, and take revenge on others (Dahling et al., 2009; Paulhus, 2014). Previous literature has found positive associations between Machiavellianism and competitiveness, and Machiavellianism and cynical views of the world (Jones & Paulhus, 2014). Machiavellianism has been linked to lower levels of organizational citizenship directed at individuals (OCB-I) and organizational citizenship directed at the organization (OCB-O; Thibault & Kelloway, 2020). Individuals who are high on the trait narcissism hold a grandiose sense of self-importance (DeShong et al., 2015), crave attention, are self-absorbed, and tend to self-promote (O'Boyle et al., 2012). Individuals high in narcissism are also more likely to engage in angry/aggressive behaviours and general incivility in their workplace (Penney and Spector, 2002) and online (Nai & Maier, 2020) as cyber incivility, particularly when criticism threatens their self-esteem (Baumeister et al., 2000). Higher trait narcissism has also been positively linked to OCB-I but not OCB-O (Thibault & Kelloway, 2020). The trait psychopathy is characterized by a lack of social regulatory mechanisms, a lack of guilt or remorse and high impulsiveness (Williams & Paulhus, 2004). Trait psychopathy has been attributed to boredom or sensation seeking (Levenson et al., 1995) and an inability to form close attachments (Lilienfeld & Andrews, 1996). In a systematic review, Moor and Anderson (2019) found that psychopathy was the strongest predictor of trolling, cyber-aggression, cyber-loafing, and cyber bullying. Psychopathy has also been linked to lower levels of OCB-I and OCB-O (Thibault & Kelloway, 2020). Lastly, the newest addition to the Dark Triad (making it the Dark Tetrad), sadism, typically involves seeking out opportunities to watch others experience pain or to hurt others in some way for amusement (Paulhus, 2014).

## **Dark Traits in the Workplace**

Thibault and Kelloway (2020) developed a measure of the Dark Tetrad for a work context. The DTW scale was the first scale developed to measure all four Dark Tetrad Traits in a single measure which allows for fewer items than would be the case when combining multiple personality scales. Reducing the number of items in a scale decreases the completion time of surveys and participant fatigue, while increasing the ability to add more predictors and outcome measures to a study. The DTW scale (Thibault & Kelloway, 2020) was validated against the Short Dark Triad measure (Jones & Paulhus, 2014) and the Varieties of Sadistic Tendencies scale (Paulhus & Jones, 2015). Interestingly, Thibault and Kelloway (2020) found that sadism and psychopathy measures from all three scales were highly correlated to each other, indicating these two constructs are very similar. The high overlap between sadism and psychopathy may indicate that the two factors are not empirically distinct and may be better represented by a higher order factor (i.e., Dark Core) or have been measuring the various facets of psychopathy all along.

Thibault and Kelloway (2020) also provide evidence for the need of developing context specific measures. In their study on the DTW scale, Thibault and Kelloway (2020) found that the DTW scale added additional small amounts of explained variance when used in a set of hierarchical regressions with existing, non-contextualized, measures of dark traits, lending support to the development of contextualized measures. Contextualized measures of personality have shown to exhibit better criterion validity (Holtrop et al., 2014; Woo et al., 2015). Holtrop et al. (2014) found that completely contextual measures of personality (i.e., designed for the specific context) showed better predictive validity than both modified tagged measures (i.e., generic measure with an added tag to designate context, e.g., “at school” or “at work”) and

generic measures of personality. For example, Holtrop et al. (2014) found that completely contextual (academia- specific) measures of conscientiousness were better predictors of academic GPA and counterproductive academic behaviour than pre-established generic measures of conscientiousness. This was also supported in the DTW scale which was found to provide more criterion validity compared to more generic personality assessments (i.e., Short Dark Triad; Jones & Paulhus, 2014). Further, context specific measures allow for the assessment of personality changes in specific contexts. There is research to suggest that personality can change as a result of employment and educational experiences (e.g., Plant, 1962; Webster et al., 1962; Dahmann & Anger, 2014). Context specific measures provide a tool for researchers and practitioners to measure personality changes in specific contexts.

The Honesty-Humility (H-H) subscale has also been used to measure organizationally deviant behaviours. H-H is a personality trait comprised of four facets: sincerity, fairness, greed avoidance, and modesty. Honesty-humility refers to one's tendency to cooperate with others even when they could exploit them (Ashton & Lee, 2007). H-H shares aspects of prosocial tendencies along with traits like emotionality (Ashton et al., 2014). There is support that some of the key facets of H-H such as sincerity, fairness, and greed avoidance are conceptually similar to the wrongdoing admissions and attitudes of integrity tests (e.g., Lee et al., 2005; Marcus et al., 2007). Lee et al. (2019) conducted a metaanalysis that investigated the H-H subscale of the HEXACO scale in predicting CWBs, organizational citizenship behaviours (OCB), and task-performance compared to the Five Factor Model (FFM), integrity tests, and general mental ability (GMA). The metaanalysis found that the H-H subscale demonstrated significant incremental validity in the prediction of CWBs over the FFM, integrity tests and GMA. Moreover, the study also conducted a supplementary analysis in which the Dark Triad was

included as a predictor of CWB. The results found incremental validity of H-H over the Dark Triad in the prediction of CWBs however, it is noted that the sample size was relatively small, and multicollinearity caused the results to be difficult to interpret. The H-H subscale did not provide incremental validity in predicting task performance or OCBs.

Other research has had similar findings, Lee and Ashton (2005) showed that the negative pole of the H-H subscale accounted for sufficient variance of the Dark Triad, later suggesting that H-H should be used when investigating the common variance of the Dark Triad (Lee and Ashton, 2014). Some researchers have even suggested using H-H to capture the core characteristics of dark traits (e.g., Vize et al., 2020; Schreiber & Marcus, 2020). However, Dinic et al. (2021) explored several compelling candidates for the Dark Core by using network analysis and analyses of shared variance among the Light Triad (Kaufman et al., 2019), emotional intelligence, H-H, antagonism, aggressiveness, selfishness, and dark traits. Antagonism was found to share the highest percentage of variance with the dark traits (Dinic et al., 2021). Among Antagonism facets, callousness shared the highest percentage of common variance with dark traits followed by deceitfulness. Callousness, deceitfulness, and grandiosity were found to share over 90% of the common variance with dark traits. This suggests that the best way to capture the Dark Core is to include measures of callousness, deceitfulness, and grandiosity rather than using the H-H subscale of the HEXACO.

The field of "dark" personality traits, which includes Machiavellianism, narcissism, psychopathy, and sadism, is not yet fully integrated into the larger area of personality psychopathology. Despite primarily existing in the subclinical range, these dark traits have been linked to increased risk of maladjustment, aggression, delinquency, socioemotional deficits, interpersonal issues, and psychopathology. The DTW scale has been developed to assess these

traits specifically in a work context, providing a more efficient and context-specific measurement compared to existing scales. Although the Dark Core- a common underlying disposition of these traits- has gained attention recently research on the Dark Core in the workplace is limited. Establishing a relationship between the DCW measure and organizationally relevant behaviours , as well as comparing its predictive ability with the Dark Tetrad and the H-H subscale of the HEXACO in predicting negative workplace behaviours is warranted.

### **The Dark Factor of Personality (D)**

Whereas an increasing number of allegedly different and increasingly narrow dark traits have been introduced (recent examples are, for instance, Sadism, O'Meara, et al., 2011; or Spitefulness, Marcus et al., 2014), the different dark traits are, by definition, related. Indeed, for any construct to be considered a dark trait it will reflect some undesirable or problematic tendencies. Correspondingly, both theorizing (e.g., Marcus & Zeigler-Hill, 2015; Paulhus, 2014) and empirical findings revealing considerable overlap across dark traits (e.g., Jones & Figueredo, 2013; O'Boyle et al., 2012) are aligned with the notion that the very basis and thus common core of dark traits is a general tendency toward ethically, morally, and/or socially questionable behaviour.

When looking at previous research in psychopathy, the concept of the existence of a Dark Core may not be new. For example, Hare (1996) defined psychopathy as “a socially devastating disorder defined by a constellation of affective, interpersonal, and behavioural characteristics, including egocentricity; impulsivity; irresponsibility; shallow emotions; lack of empathy, guilt or remorse; pathological lying; manipulateness; and the persistent violation of social norms and expectations” (p. 25). This description of psychopathy includes many of the elements of the Dark Triad/Tetrad. Researchers of the dark traits have considered the trait psychopathy to be a much

more limited version of what pure psychopathy researchers do. Therefore, the idea of combining dark trait elements into a general factor, may not be new, but rather, a circle back to pure psychopathy research (e.g., Jones and Figueredo, 2013).

Moshagen et al. (2018) argued that aversive traits represent flavoured manifestations of a basic underlying disposition “to maximize one’s individual utility—disregarding, accepting, or malevolently provoking disutility for others—, accompanied by beliefs that serve as justifications” (pp. 657). In the pursuit of personal interests, individuals with higher levels in D will either disregard, accept, or actively inflict disutility on others. In addition, these individuals will hold implicit or explicit beliefs that serve as justification for socially and/or ethically aversive behaviours such as a sense of entitlement, generalized distrust and cynicism, or demeaning others (Moshagen et al., 2018; Moshagen et al., 2020).

All aversive qualities, in turn, are seen as distinct, flavoured representations of this generic disposition as they vary (a) in terms of which of the defining elements of D is most apparent and (b) with respect to the special attributes a trait may entail beyond D. The conceptualization of D as the basic disposition underlying all aversive traits received empirical support on several studies. Both exploratory factor analyses and bifactor modeling indicated that the commonalities among twelve different aversive traits were largely attributable to a single underlying factor in line with the theoretical definition of D (Moshagen et al., 2020). This factor, D, showed predictive validity for actual selfish and dishonest behaviour in addition to substantial relationships to a wide range of self-reported criterion measures (such as aggression, crime, and delinquency), whereas specific aversive traits only occasionally improved the prediction beyond D (Moshagen et al., 2018; Moshagen et al., 2020). Moreover, in a four-year longitudinal study, D was found to exhibit high rank-order stability and predicted individual differences and changes

in most aversive traits to a similar (sometimes superior) extent as the trait in question (e.g., psychopathy was longitudinally better predicted by D than by psychopathy itself; Zettler et al., 2020).

In another eight-month longitudinal study by Hilbig et al. (2020), D was also substantially associated with all instances of socially aversive psychopathology (i.e., antisocial, paranoid, and, to a lesser extent, borderline tendencies), and longitudinally predicted most of these instances even beyond each instance predicted by itself. These findings thus strongly comply with the conceptualization of D as the common core of all aversive traits, including instances of socially aversive psychopathology.

Finally, D has been found to differ from the low pole of basic personality traits such as agreeableness (FFM) or Honesty-humility (HEXACO) in several theoretical aspects (see Moshagen et al., 2020; Schreiber & Marcus, 2020; Vize et al., 2020), D predicted notable incremental variance in all instances of socially aversive psychopathology and a host of relevant consequential criterion measures beyond basic personality traits (Hilbig et al., 2021; Moshagen et al., 2018; Moshagen et al., 2020; Zettler, et al., 2020).

### **Themes of the Dark Core of Personality**

A recent study by Bader et al. (2021) sought to clarify the internal structure of D in terms of its themes with a large sample ( $N=1964$ ). Using a series of exploratory bi-factor analysis to extract the D factor along with an increasing number of specific factors in a large pool of 70 items representing 12 previously introduced aversive traits, five-themes emerged: callousness, sadism, vindictiveness, deceitfulness, and narcissistic entitlement.

The first theme, callousness, represents a lack of concern for other people including an indifference towards the negative consequences of one's behaviour for others. In a review of

qualities that lead to poor leadership, Kellerman (2004) identified callousness as one of the patterns of behaviours that are associated with unethical leadership. Callousness specifically is said to be indicative of evil leaders and their negative influence can be of great consequence to employees, shareholders, and the public.

The second theme, sadism, which represents deficits in the response to the distress of others, might represent an integral part of the disposition to deliberately provoke disutility for others to exert power and dominance or for personal pleasure and satisfaction. This definition of sadism is different than the one provided by Paulhus (2014) as rather than seeking out opportunities to watch others in distress for amusement, Bader et al. (2021) suggests sadism represents a deficit in the response to the distress of others. Sadism has been theoretically tied to bullying (e.g., Baumeister & Campbell, 1999; Bowie, 2002). Sadistic personality disorder (a personality disorder in the DSM-III-R that is no longer in the current edition of the DSM) has been positively associated with trait measures of overt aggression (e.g., threats of physical aggression) and relational aggression (e.g., spreading rumours; Schmeelk et al., 2008).

The third theme vindictiveness, reflects the desire to seek revenge, even accepting one's own costs for the sake of retaliation. Equity theory and the related research offer perhaps the best framework for a conceptualization of the revenge situation. According to the formulation by Walster et al. (1978), people are motivated to maintain equity (fairness) regarding power or resources in their social relationships. Thus, a transgression violates the individuals' assumptions regarding how people treat each other. In most cases, the transgression violates the equity in a relationship by creating costs to the victim. The victim is then motivated to seek justice, an outcome which is, of course, desirable, and adaptive (Tripp & Bies, 1997). The means or method for seeking this justice, however, may be less than desirable.



The fourth theme, deceitfulness, is the willingness to engage in deceptive and illegal behaviours. The dominant association between Machiavellianism and perceived ability to deceive was explained considering Machiavellians' self-concept as a more successful deceiver than the average person; perhaps because of more frequent involvement in deceptive behaviour (Giammarco et al., 2013). Research that investigated the influence of perceived ability to deceive as a mediator of the relationship between the Dark Triad personality traits and cyberloafing in a vocational context found that perceived ability to deceive mediated the relationships between the Dark Triad and cyberloafing (Lowe-Calverley & Grieve, 2017).

The final theme, narcissistic entitlement, represents a sense of self-importance and inflated deservingness involving a pronounced and disproportionate claim to resources, thus representing a particularly strong belief that can be used as justification for malevolent behaviour. To date, there is comparatively little theoretical (Brouer et al., 2011) or empirical research (see Fisk, 2010; Harvey & Dasborough, 2015; Harvey & Harris, 2010; Harvey & Martinko, 2009) that has considered entitlement in the workplace. Naumann et al. (2002) noted that inflated self-views and expectations of rewards associated with entitlement can be linked to skewed notions of reciprocity, which can lead to lower work performance. Harvey and Martinko (2009) concluded that employees with high entitlement might feel mistreated despite receiving recognition that seemingly commensurate with their efforts and abilities. More recently, Harvey et al. (2014) found that entitled employees reported higher levels of perceived supervisor abuse than coworkers who had the same supervisor, which in turn, led to greater organizational deviance.

## **Dark Core at Work**

Currently, there is no context specific measure of the Dark Core for the workplace published. The previous Dark Core measure by Moshagen et al. (2018) was designed as a 70-item measure but has 30-item and 16-item versions and was developed as a unidimensional model that was later established as a bi-factor model by Bader et al. (2021), comprised of five themes.

The DCW (Wang et al., 2023) measure was developed for a work context. Sets of items were developed for each of Bader et al. (2021) five themes using existing items from Moshagen et al. (2020) contextualized for the workplace. Contextualized measures of personality have been shown to have superior predictive validity over general/global measures of personality (e.g., Woo et al., 2015). Aside from being context-specific, the DCW (Wang et al., 2023) scale was the first scale designed specifically to measure the five themes of the Dark Core in a single measure. The DCW (Wang et al., 2023) measure was designed to ensure a shorter completion time of surveys and reduce participant fatigue with 5 items in total. Furthermore, shorter measures are more suited to larger multivariate studies characteristic of organizational research (Gilbert & Kelloway, 2014). The DCW scale (Wang et al., 2023) significantly correlated ( $r = .71$ ) with the Dark Core measure by Moshagen et al. (2020) and significantly negatively correlated with all subthemes of the HEXACO except extraversion. Further, the DCW (Wang et al. 2023) correlated highest with the psychopathy and sadism themes of the Dark Tetrad (Thibault & Kelloway, 2020). The scale was also found to predict counter productive work behaviours, incivility, bullying, job engagement, cyber bullying, and cyber incivility above and beyond the Dark Tetrad (Wang et al., 2023) however, the scale was validated and developed using the same participants.

## **Outcomes**

In my study I considered the relationship between the Dark Tetrad traits, the H-H factor of the Hexaco, the DCW and a variety of workplace outcomes from a new sample. Specifically, I considered workplace bullying, counterproductive work behaviours, toxic leadership, incivility, cyber bullying, cyber incivility, and organizational citizenship behaviours.

## ***Bullying***

Workplace bullying is defined as the repeated unethical and unfavourable treatment of one person by another in the workplace (Boddy, 2011). This includes behaviours designed to belittle others via humiliation, sarcasm, rudeness, overworking employees, threats, and violence (Dierickx, 2004; Djurkovic et al., 2004). Bullying causes great emotional pain to its victims (Lutgen-Sandvik, 2008; Tracy et al., 2006) and has financial costs to the organizations involved (see Anonymous, 2008). Boddy (2011) conducted a study using an Australian sample of senior white-collar workers and self-report measures of bullying and a report on their managerial behaviours. Boddy (2011) found that in organizations where corporate psychopaths were present, the average number of incidents of witnessing the unfavourable treatment of others at work was significantly higher compared to when they were not. Corporate psychopaths accounted for 26% of all bullying behaviours at work despite only representing about 1% of the working population (Boddy, 2011). Results from the study also found that in organizations where corporate psychopaths were present, 93.3% of employees witnessed the unfavourable treatment of others at work compared to 54.7% of employees at organizations where a corporate psychopath was not present (Boddy, 2011). Other research has supported Boddy et al. (2011) such that higher scores on the Dark Tetrad have been linked to CWBs (i.e., bullying) and reduced employee well-being (O'Boyle et al., 2015) warranting research into a screening tool for dark traits.

*Hypothesis 1: The Dark Core at Work measure will be positively related to bullying behaviours.<sup>1</sup>*

### ***Counter-productive Workplace Behaviours***

Counterproductive work behaviours (CWBs) are an expensive phenomenon for organizations, costing over four billion dollars in addition to lower worker morale and increased turnover (Frost, 2007). CWBs are defined as voluntary behaviour that harms an organization or its members (Bennett & Robinson, 2000). Organizations need to do everything they can to reduce CWBs to maintain a healthy and productive work environment. Reducing CWBs is more important in today's work climate than ever before because of employees' heightened sensitivity to their own well-being. An organization with a high number of CWBs will see more turnover and increased spending for hiring and training new employees. Much of the existing research relating CWBs has used the five-factor model (FFM) or the HEXACO, which are considered the bright sides of personality (Wu & LeBreton, 2011) however, some personality researchers have suggested measuring dark traits in addition to the Big Five to maximize predictive accuracy in selection (e.g., Grijalva & Newman, 2015).

*Hypothesis 2: The Dark Core at Work measure will be positively related to counter-productive work behaviours.*

### ***Toxic Leadership***

Toxic leaders show an underlying disregard for their subordinates' well-being, and may even be destructive or abusive (Flynn, 1999; Lipman-Blumen, 2005). Many toxic leadership articles include stories of leaders who berate, belittle, and bully their subordinates, hold subordinates accountable for things beyond their control or tasks outside of their job descriptions, and force their subordinates to work harder and sacrifice more than is reasonable (see Frost, 2004). Toxic leaders display bad behaviours that degrade their followers' morale,

<sup>1</sup> All study variables were measured using self-report therefore, all measures are perceptual.

motivation, and self-esteem, as well as place an excessive task on them. Abusive executives engage in workplace bullying, harassment, fraud, and dishonesty (Mehta, 2013).

Recent research has also revealed that toxic leaders have an obvious lack of concern for the welfare of their subordinates, a personality that negatively affected organizational culture, and a belief among subordinates that their superior's actions were primarily motivated by selfish motives and self-interest (Reed, 2004). Toxic leadership is therefore defined as a strategy that fostered an environment in which employees were rewarded for agreeing with the leader and chastised for questioning his/her authority. People's passion, creativity, autonomy, and innovativeness are constrained in this sort of atmosphere, and the leader's interests take precedence. Mamaril (2019) investigated whether the Dark Triad is an antecedent to toxic leadership behaviours in the United States Navy Seals by analyzing three cases that exhibited toxic leadership actions by United States Navy leaders which became substantiated based on completed United States Navy investigations into the incidents. Mamaril (2019) found that the Dark Triad personality traits of Machiavellianism, narcissism, and/or psychopathy served as possible antecedents or causes to toxic leadership by United States Navy leaders.

*Hypothesis 3: The Dark Core at Work measure will be positively related to toxic leadership.*

### ***Incivility***

The study of workplace incivility, which is described as "low-intensity deviant workplace behaviour with an ambiguous intent to harm the target" (Andersson & Pearson, 1999, p.457), has grown in popularity over the last two decades. Although workplace incivility is mild in comparison to other forms of workplace mistreatment such as aggression and violence (Cortina, et al., 2001), researchers have reported that incivility is ubiquitous and is one of the most common antisocial behaviours individuals experiences at work (Cortina et al., 2001). Previous

research has looked at a variety of negative consequences related with workplace incivility, such as lower job satisfaction and increased unpleasant emotions (Cortina et al., 2001).

Investigating the literature suggests that there is a significant linkage between personality traits and incivility between employees and superiors (Chughtai et al., 2020). In a study by Lata and Chaudhary (2020) on the Dark Tetrad and incivility, it was found that Machiavellianism and narcissism predicted incivility behaviours to supervisors, but only Machiavellianism predicted incivility behaviours to both colleagues and supervisors. Further, Smith et al. (2016) found that the Dark Triad traits have a positive relationship with workplace incivility. Another study conducted by Khalid et al. (2022) found that all three Dark Triad traits predicted workplace incivility in a population of hospital workers. Moreover, Khalid et al. (2022) found that workplace incivility significantly and negatively affected job involvement and significantly and positively affected depersonalization showing that workplace incivility has a detrimental influence on interpersonal connections and job involvement.

*Hypothesis 4: The Dark Core at Work measure will be positively related to incivility.*

### ***Cyber Bullying***

As organizations continue to move to more remote or hybrid work environments, problematic social behaviours develop in a variety of ways. One of these behaviours is cyber bullying, which is described as "repeated hostile or aggressive behaviour conducted by individuals or groups through digital media with the intent of causing hurt or distress to the victims" (Tokunaga, 2010).

The Dark Tetrad of personality, as an antisocial personality, has been connected to cyber bullying. Traditional bullying behaviours have been connected to callous-unemotional qualities, which in turn have been linked to the Dark Triad (Goodboy & Martin, 2015; Baughman et al.,

2012). It is believed that persons with dark personalities are predisposed to participate in bullying behaviour and, as a result, cyber bullying due to a lack of empathy and consideration for others' feelings. Alavi et al. (2022) study on cyber bullying, cyber-trolling and the Dark Tetrad among internet users found that narcissism, sadism, and psychopathy significantly predicted cyber bullying and cyber-trolling behaviours. Further, Goodboy and Martin (2015) found that the Dark Triad personality has a significant relationship with cyber bullying behaviours. Specifically, psychopathy was found to be a unique predictor of cyber bullying perpetrators (Goodboy & Martin, 2015).

*Hypothesis 5: The Dark Core at Work measure will be positively related to cyber bullying.*

### ***Cyber Incivility***

Cyber incivility is defined as communicative behaviour exhibited in computer mediated interactions that violate workplace norms of mutual respect (Lim & Teo, 2009). Due to the target's constant access to electronic communication, lack of social cues, potential for misreading emotions in these text-based messages, potential for delayed or absent feedback, ability to repeatedly experience one unkind interaction (e.g., reread an unkind email), and special ICT features (e.g., carbon copying; Byron 2008; Dooley et al., 2009) cyber incivility may have effects on the target. Empirical studies on cyber incivility enacted in email communications has found that employees who experience cyber incivility engage in workplace deviance or quit their jobs (Lim & Teo, 2009). Further, other research has found that cyber incivility was associated with lower energy levels, increased negative affect, decreased positive affect, poor performance and lower levels of engagement (Giumetti et al., 2013). Given the erosive consequences of cyber incivility, there is a pressing need to further the research into the causes of cyber incivility.

Dark traits have characterizations of poor interpersonal relationships (e.g., manipulating, low empathy, lying) and a prioritization of the self over the group, which creates an imbalance between individuals high in the dark traits and their coworkers (O'Boyle et al., 2012). Research has provided evidence that individuals who score high on dark trait measures tend to engage in more incivility (e.g., Madhu, 2020; Khalid et al., 2022). The difference between cyber incivility and incivility lies primarily in the medium the uncivil behaviours occur. Due to the similarity between cyber incivility and incivility, there is likely a relationship between dark traits and cyber incivility.

*Hypothesis 6: The Dark Core at Work measure will be positively related to cyber incivility.*

### ***Organizational Citizenship Behaviours***

The actions that workers willingly adopted in order to advance the organization were termed by Katz (1964) as "extra-role behaviours." Bateman & Organ (1983) coined the phrase "organizational citizenship behaviour" for the first time. OCB was later described by Organ (1988) as "individual behaviour that is not explicitly or indirectly recognized by the formal reward system and that behaviour plays an essential role in the effective functioning of the organization."

It is crucial to study OCB in relation to people who exhibit high levels of dark traits because it has been suggested that these people use social behaviours at work which put personal objectives ahead of the social balance required for efficient organizational functioning (O'Boyle et al., 2012). Because OCB is a social and optional behaviour that puts the needs of others and the group above oneself (LePine et al., 2002; Organ, 1997), it is crucial to comprehend how people who exhibit a high level of DT characteristics behave in socially significant ways like OCB. There is a contradiction in current literature as to the relationship between psychopathy



and OCBs. First, Schütte et al., (2018) found negative relationship between self-centered impulsivity (one facet of psychopathy) and contextual performance. However, Szabó et al. (2018) did not find that psychopathy was related to OCBs warranting further research on the relationship. There is evidence that other dark traits are associated with OCBs. For example, Judge, LePine, and Rich (2006) found that narcissism was significantly and negatively related to supervisor ratings of organizational citizenship behaviours and positively related to self-ratings of organizational citizenship behaviours. Further, Webster and Smith (2019) conducted a study on the Dark Triad and OCBs and found that all three Dark Triad traits had a negative relationship with OCBs. Interestingly, a high involvement management climate was found to be a moderator for the relationship between narcissism and Machiavellianism on OCBs, but psychopathy was not affected (Webster & Smith, 2019). Lastly, Szabó et al. (2018) also found that there was a negative relationship between narcissism and Machiavellianism with OCBs.

*Hypothesis 7: The Dark Core at Work measure will be negatively correlated with organizational citizenship behaviours.*

### **Incremental Prediction**

A study by Fernández-del-Río et al. (2020) analyzed the incremental effects of the Dark Tetrad effects on job performance dimensions over the FFM and Honesty-Humility scales. Data was collected through non-probability sampling as students were recruited to distribute the questionnaire to the workers they knew. Fernández-del-Río et al. (2020) study used the DTW scale by Thibault and Kelloway (2020) and the Individual Work Performance Questionnaire (Fernández-del-Río et al., 2019). Results from the study indicated that the Dark Tetrad explained unique variance beyond Honesty-Humility in predicting job performance (Fernández-del-Río et al., 2020). Further, Schreyer et al. (2021) found there was significant overlap with the Dark

Triad, HEXACO and trait emotional intelligence. Other research has found that the trait narcissism explains some of the variances in CWBs beyond the FFM (Grijalva & Newman, 2015) supporting Fernández-del-Río et al. (2020) findings. The Dark Core measure by Moshagen et al., (2020) was developed using a rational item-selection (e.g., Schroeders et al., 2016) where the measure was created by successively identifying and adapting items from 112 different established aversive traits. Out of a pool of over 180 indicators, 70 items were selected to consist of the Dark Core (Moshagen et al., 2020). The final measure thus consisted of items that strongly reflected the basic disposition underlying all aversive traits. Bader et al. (2021) looked to explore the themes of the Dark Core by applying Goldberg's (2006) "bass-ackwards" procedure. Bader et al. (2021) revealed that the common core of aversive traits may be described as a blend of five themes (labeled Callousness, Deceitfulness, Narcissistic Entitlement, Sadism, and Vindictiveness) which are anchored by the disposition towards utility maximization along with disutility infliction on others, accompanied by beliefs that act as justification. The DCW (Wang et al., 2023) was developed using the five themes found by Bader et al. (2021) to best capture the Dark Core and therefore conceptually covers more constructs than the DTW (Thibault & Kelloway, 2020) due to the rational item-selection scale development method used by Moshagen et al. (2020). Due to the ability of the Dark Tetrad to predict behaviours above and beyond the FFM and HEXACO, it is expected that an improved measure of dark traits would perform better than the Dark Tetrad and, subsequently, predict organizational behaviours better than the H-H scale of the HEXACO.

*Hypothesis 8: The Dark Core at Work will add to the prediction of bullying behaviours over and above the prediction obtained from DTW and HH.*

*Hypothesis 9: The Dark Core at Work will add to the prediction of Counter-productive work behaviours over and above the prediction obtained from DTW and HH.*

*Hypothesis 10: The Dark Core at Work will add to the prediction of Toxic Leadership behaviours over and above the prediction obtained from DTW and HH.*

*Hypothesis 11: The Dark Core at Work will add to the prediction of incivility over and above the prediction obtained from DTW and HH.*

*Hypothesis 12: The Dark Core at Work will add to the prediction of cyber bullying over and above the prediction obtained from DTW and HH.*

*Hypothesis 13: The Dark Core at Work will add to the prediction of cyber incivility over and above the prediction obtained from DTW and HH.*

*Hypothesis 14: The Dark Core at Work will add to the prediction of organizational citizenship over and above the prediction obtained from DTW and HH.*

### **The Current Study**

Research on the Dark Core of personality is important for several reasons. Firstly, the Dark Core of personality has been found to be a strong predictor of negative leadership outcomes, such as unethical behaviour, abusive supervision, and poor performance. Measuring the Dark Core of personality in leaders can help organizations identify individuals who may be at risk of exhibiting these negative behaviours and take steps to prevent or mitigate them (Hogan & Hogan, 2017). Additionally, leaders play a crucial role in shaping the culture of their organizations. Leaders with high levels of dark personality traits can create toxic work environments characterized by fear, mistrust, and conflict. Lastly, leaders have a significant impact on the lives of their followers, and it is therefore important that they operate with high levels of integrity and ethical behaviour. Understanding the role of the Dark Core in the

behaviours of leaders can better inform researchers and practitioners on the role of personality in the workplace.

## **Methodology**

### **Participants**

A total of 302 participants were recruited through Prolific to complete the study. It was required that participants be at least 18 years of age, fluent in English, currently employed full-time, been in their current position for at least three months, and have at least one person who reports directly to them at work. Only participants who completed 2 of the 3 attention checks were rewarded for study participation and only participants who reported they were paying attention to all three of the self-report attention items were included in the analysis. The final sample for analysis included 253 participants. With respect to gender, 62.1% of the participants were male ( $n = 157$ ), 37.5% identified as female ( $n = 95$ ) and .4% identified as non-binary ( $n = 1$ ). In terms of their highest level of education attained, 47.8% reported having a bachelor's degree ( $n = 121$ ), 17.4% had a post graduate degree ( $n = 44$ ), 11.5% had a college degree ( $n = 29$ ), 11.5% graduated high school ( $n = 29$ ), 11.1% had some college experience but no degree ( $n = 28$ ), and .8% did not have a high school diploma ( $n = 2$ ). A majority of 82.6% of the participants identified as White ( $n = 209$ ), 9.5% identified as Asian ( $n = 24$ ), 5.9% identified as Black ( $n = 15$ ), 4.7% identified as Hispanic, Latino, or Spanish Origin ( $n = 12$ ), 3.2% identified as North American Indigenous ( $n = 8$ ), .8% identified as Native Hawaiian or other Pacific Islander ( $n = 2$ ), and .4% identified as Middle Eastern or North African ( $n = 1$ ). The age of the participants was between 20 and 85, with a mean of 41.42 ( $SD = 12.24$ ). 77.9% of the participants worked in management ( $n = 197$ ), 11.1% worked as a trained professional ( $n = 28$ ), 4.3% worked in administrative roles ( $n = 11$ ), 2% were skilled laborer's ( $n = 5$ ), 1.6% work as

researchers (n = 4), 1.2% work as support staff (n = 3), .4% work as consultants (n = 1), and 1.2% work in other disciplines (n = 3). Most participants (73.1%, n = 185) indicated they had between 1 and 10 direct reports at work, 22.1% had between 10-50 direct reports at work (n = 56), 3.2% had between 50-100 direct reports at work (n = 8), and 1.2% had over 100 direct reports at work (n = 3). A majority 55.3% of participants indicated they were first level supervisors (n = 140), 35.2% indicated they were second level (n = 89), and 9.1% indicated they were third level (n = 23). Most participants (39.9%, n = 101) indicated they had been at their current job for more than a year, 24.5% indicated they had been at the current job for more than 5 years (n = 62), 23.3% indicated they had been at their current management role for more than 10 years (n = 59), 8.3% indicated they had been at their current management role for six months to a year (n = 21), and 4% indicated they had been at their current management role for three to six months (n = 10).

## **Procedure**

Respondents were recruited via Prolific, an online survey panel. During the single day of data collection, participants were asked to complete a 15-minute survey. The survey asked participants to self-report on workplace related behaviours and personality characteristics. The survey personality measures such as the Dark Core, the Dark Tetrad, and Honesty-humility. The survey also had participants self-report on bullying behaviours, CWB's, toxic leadership behaviours, incivility, cyber incivility, cyber bullying, and OCB's. The survey also asked participants about demographic information (e.g., age, position tenure, gender, etc.). Please refer to appendix B to L for a list of full materials used in the study.

## **Measures**

### ***Dark Core***

As part of an online survey, participants completed Wang et al. (2023) 5-item Dark Core at Work scale (Appendix B:  $\alpha = .84$ ) rating items such as “I enjoy giving coworkers misleading information”, on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree” with higher scores indicating a higher prevalence of the Dark Core.

### ***Dark Tetrad***

The study included Thibault & Kelloway’s (2020) 22-item DTW (Appendix C: DTW) scale scored on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree” composed of 4 themes: narcissism ( $\alpha = .72$ ), Machiavellianism ( $\alpha = .79$ ), psychopathy ( $\alpha = .87$ ) and sadism ( $\alpha = .86$ ). Example items include “my position at work is prestigious” and “I do not trust others at work” with higher scores indicating a higher prevalence of the Dark Tetrad.

### ***Honesty-Humility***

Ashton & Lee’s (2009) 10-item version of the Honesty Humility subscale of the HEXACO (Appendix D;  $\alpha = .78$ ) where participants rate items such as “having a lot of money is not important to me” on a five-point Likert scale ranging from “strongly disagree” to “strongly agree” with higher scores indicating participants have more of the trait honesty-humility.

### ***Bullying***

The study also included Einarsen et al. (2009; Appendix E) 17-item measure of bullying behaviours (NAQ;  $\alpha = .95$ ). The scale has participants rate the frequency they have done each behaviour within the last six months on a five-point frequency scale ranging from “never” to “daily”. An example item from Einarsen et al. (2009) NAQ is “during the last six months, have

you withheld information which affects someone's performance" with higher scores indicating more bullying behaviours.

### ***Counter-Productive Workplace Behaviours***

Bennett & Robinson's (2000; Appendix F) 19-item measure of counter-productive work behaviours (CWB-I,  $\alpha = .93$ ; CWB-O,  $\alpha = .90$ ), has participants rate on a 7-point frequency scale ranging from "never" to "daily", how often participants engaged in each behaviour at work in the last six-months. An example item looks like "made fun of someone at work" with higher scores indicating more CWB's.

### ***Toxic Leadership***

Additionally, participants completed Schmidt's' (2008) 30-item measure of toxic leadership (Appendix G) which has participants rate on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". The Toxic Leadership scale (Schmidt, 2008) is composed of self-promotion ( $\alpha = .83$ ), abusive supervision ( $\alpha = .90$ ), unpredictability ( $\alpha = .90$ ), narcissism ( $\alpha = .82$ ) and authoritarian leadership ( $\alpha = .82$ ). An example item from the scale is "I drastically change my demeanor when my supervisor is present" and higher scores indicates the individual engaged in more toxic leadership behaviours.

### ***Incivility***

The Leiter & Day (2013) 5-item measure of incivility (Appendix H; SIS;  $\alpha = .91$ ) was also used in the current study. The scale asks participants how often they have engaged in the following behaviours in the past 6 months using a 7-point frequency scale ranging from "never" to "daily" with higher scores indicating more incivility behaviours.

### ***Cyber Incivility***

Lim & Teo (2009) 13-item measure of cyber incivility (Appendix I:  $\alpha = .93$ ) was used in the current study to measure cyber incivility. The scale asks participants how often they have engaged in each behaviour in the last six months on a 5-point frequency scale ranging from “not at all” to “all of the time”. An example item is “said something hurtful to them through email” with higher scores indicating more cyber incivility behaviours.

### ***Cyber Bullying***

Farley et al. (2016) 17-item measure of cyber bullying (Appendix J;  $\alpha = .96$ ) was also used in the current study to assess cyber bullying behaviours. Participants rate how often they have engaged in each behaviour in the last six months using a 5-point frequency scale ranging from “never” to “daily”. An example item is “sent unreasonable work demands” with higher scores indicating more cyber bullying behaviours.

### ***Organizational Citizenship Behaviours***

Organizational citizenship behaviours were measured using Williams and Anderson’s (1991) 14-item measure of organizational citizenship behaviours (Appendix K; OCB-I,  $\alpha = .87$ ; OCB-O,  $\alpha = .68$ ). Participants rate the degree to which they agree to statements such as “it is difficult for me to imagine my future” on a five-point Likert scale ranging from “strongly disagree” to “strongly agree” with higher scores indicating more organizational citizenship behaviours.

## **Results**

All hypotheses were tested using data from a sample recruited through Prolific because I was interested in the relationship between the dark core and leadership, I specifically recruited a sample of individuals who self-identified as having a leadership role (e.g., supervisor, manager)



in their organizations. Analyses were conducted in Mplus (version 8.9; Muthén & Muthén, 2015), SPSS (version 28.0; IBM Corp) and Dueber's (2015) bifactor indices calculator.

Raw means and standard deviations of variables can be found in Table 1. Due to significant ( $p < .01$ ) violations of Shapiro-Wilk and Kolmogorov-Smirnov normality tests for study variables, log base ten transformations ( $\log_{10}(x-1)$ ; Tabachnick & Fidell, 2013) were conducted on all study variables except H-H, OCB-I, and OCB-O. Correlation values in Table 1 were calculated after the log transformations. As expected, the DCW scale was positively correlated with self-promotion ( $r = .72, p < .001$ ), unpredictability ( $r = .62, p < .001$ ), narcissism ( $r = .47, p < .001$ ), and authoritarian leadership ( $r = .59, p < .001$ ) which supports hypothesis 1. The DCW scale was most strongly related to the abusive supervision ( $r = .75, p < .001$ ) subscale of the toxic leadership measure. The DCW scale was also positively correlated with incivility ( $r = .52, p < .001$ ), CWB-I ( $r = .64, p < .001$ ), CWB-O ( $r = .47, p < .001$ ), NAQ ( $r = .64, p < .001$ ), cyber incivility ( $r = .62, p < .001$ ), and cyber bullying ( $r = .63, p < .001$ ) providing support for hypotheses 2 to 6. The DCW was negatively associated with OCB-I ( $r = -.37, p < .001$ ) but had no significant relationship with OCB-O ( $r = .05, p = .49$ ) providing partial support for hypothesis 7.

The DCW scale was also strongly correlated to the psychopathy ( $r = .71, p < .001$ ) and sadism ( $r = .69, p < .001$ ) subscales of the DTW. Honesty-humility was negatively correlated to the DCW scale ( $r = -.49, p < .001$ ).

### **Confirmatory Factor Analysis**

A one factor solution model with DCW items loading onto a single factor provided an acceptable, but not outstanding, fit ( $\chi^2(5) = 34.73, p < .001$ ; TLI = .91; CFI = .96; RMSEA = .14 (90% CI: .10 - .19)). Given the observed correlations, I also conducted a confirmatory factor

analysis to assess whether the DCW scale differed from the DTW scale. A one-factor model with both DTW items and DCW items loading onto a single factor provided poor fit ( $\chi^2(324) = 1452.20$ ,  $p < .001$ ; TLI = .72; CFI = .74; RMSEA = .11(90% CI: .10 - .11)). A three-factor solution combining the psychopathy and sadism scales from the DTW as well as the DCW items was also examined. The three-factor solution provided better fit to the data ( $\chi^2(351) = 1022.74$ ,  $p < .001$ ; TLI = .82; CFI = .84; RMSEA = .09 (90% CI: .08 - .09)) than the one factor solution. However, a five-factor solution provided the best fit to the data ( $\chi^2(314) = 944.90$ ,  $p < .001$ ; TLI = .84; CFI = .85; RMSEA = .08 (90% CI: .08 - .09.85)) suggesting that the DCW scale is different than the DTW however, the model still had relatively poor fit. The results for the five factor solution item loadings can be found in Figure 1.

### **Bifactor Analysis**

I was also interested in investigating whether a bifactor structure for the DTW scale fit better than a four-factor structure. The model specifying bifactor structures for the DTW yielded a better fit to the data,  $\chi^2(181) = 423.25$ ,  $p < .01$ ; SRMR = .05; TLI = .90; CFI = .92; RMSEA = .07 (90% CI: .08 - .06) compared to a four factor solution  $\chi^2(203) = 602.84$ ,  $p < .01$ ; SRMR = .08; TLI = .85; CFI = .87; RMSEA = .08 (90% CI: .07 - .08). During specification, I allowed the four latent variables of the DTW to correlate with each other. All but two narcissism items loaded significantly onto the general factor (range: .45 to .20). All Machiavellianism items loaded significantly on the general factor (range: .31 to .38), as well as sadism (range: .51 to .47), and psychopathy (range: .75 to .62). Item loadings can be found in Figure 2. The general ( $\omega_H = .74$ ), narcissism ( $\omega_S = .79$ ), Machiavellianism ( $\omega_S = .90$ ), psychopathy ( $\omega_S = .68$ ) and sadism ( $\omega_S = .69$ ) factors proved to be reliable (Rodriguez et al., 2016). The *ECV* indicated that the general factor accounted for 54% of the common variance among all DTW items. Narcissism accounted

for the next highest amount of variance ( $ECV = .21$ ), followed by Machiavellianism ( $ECV = .17$ ), sadism ( $ECV = .06$ ) and psychopathy ( $ECV = .02$ ). However, the results generally support the idea that the most prominent measures of the DTW converge to a single construct.

The bivariate latent correlation between the general factor of the DTW (modelled as the general factor in the bifactor specification) and the DCW was performed to assess the similarity of the two constructs. The correlation between the general factor and the DCW was estimated at  $r = .83$  ( $r^2 = 69\%$ ),  $p < .01$ ) showing high overlap among the two variables.

### **Hierarchical Regressions**

Hierarchical multiple regressions were conducted to determine if the DCW measure had incremental validity over the DTW scale and H-H subscale. Age, gender, position tenure, number of direct reports and management level were not controlled for in the final hierarchical regression as they did not have a significant impact on the regression coefficients. Results of these analyses are presented in Table 2. Combined, the DTW scale, H-H subscale, and The DCW scale explained between 42% and 64% of the variance in toxic leadership behaviours, between 37% and 58% of the variance in organizational deviance behaviours, and 27% of the variance in OCB-I. The DCW measure accounted for criterion variance above and beyond the DTW and H-H scales for every case except OCB's.

### ***Toxic Leadership***

DCW was uniquely and positively associated with self-promotion ( $\beta = .39$ ,  $p < .001$ ,  $sr^2 = .23$ ), abusive supervision ( $\beta = .56$ ,  $p < .001$ ,  $sr^2 = .33$ ), unpredictability ( $\beta = .38$ ,  $p < .001$ ,  $sr^2 = .22$ ), narcissism ( $\beta = .20$ ,  $p = .02$ ,  $sr^2 = .12$ ), and authoritarian leadership ( $\beta = .43$ ,  $p < .001$ ,  $sr^2 = .26$ ) controlling for the DTW and H-H scales. The DCW measure explained unique variance in self-promotion ( $\Delta R^2 = .06$ ,  $F(1, 234) = 36.20$ ,  $p < .001$ ), abusive supervision ( $\Delta R^2 = .11$ ,  $F(1,$

232) = 73.22,  $p < .001$ ), unpredictability ( $\Delta R^2 = .05$ ,  $F(1, 233) = 22.08$ ,  $p < .001$ ), narcissism ( $\Delta R^2 = .01$ ,  $F(1, 233) = 5.41$ ,  $p = .021$ ), and authoritarian leadership ( $\Delta R^2 = .07$ ,  $F(1, 232) = 26.20$ ,  $p < .001$ ) above and beyond the DTW and H-H scales. These results provide support for hypothesis 8.

### ***Organizational Deviance***

DCW was uniquely and positively associated with incivility ( $\beta = .33$ ,  $p < .001$ ,  $sr^2 = .20$ ), CWB-I ( $\beta = .28$ ,  $p < .001$ ,  $sr^2 = .17$ ), CWB-O ( $\beta = .20$ ,  $p = .02$ ,  $sr^2 = .12$ ), NAQ ( $\beta = .24$ ,  $p < .001$ ,  $sr^2 = .14$ ), cyber incivility ( $\beta = .34$ ,  $p < .001$ ,  $sr^2 = .20$ ), and cyber bullying ( $\beta = .25$ ,  $p < .001$ ,  $sr^2 = .16$ ) controlling for the DTW and H-H scales. The DCW measure explained unique variance in incivility ( $\Delta R^2 = .04$ ,  $F(1, 235) = 13.72$ ,  $p < .001$ ) CWB-I ( $\Delta R^2 = .03$ ,  $F(1, 234) = 15.92$ ,  $p < .001$ ), CWB-O ( $\Delta R^2 = .01$ ,  $F(1, 230) = 5.49$ ,  $p = .02$ ), NAQ ( $\Delta R^2 = .02$ ,  $F(1, 234) = 12.17$ ,  $p < .001$ ), cyber incivility ( $\Delta R^2 = .04$ ,  $F(1, 229) = 18.09$ ,  $p < .001$ ), and cyber bullying ( $\Delta R^2 = .02$ ,  $F(1, 227) = 13.61$ ,  $p < .001$ ) above and beyond the DTW and H-H scales. These results provide support for hypotheses 9 to 13.

### ***Organizational Citizenship***

DCW was uniquely associated with OCB-I ( $\beta = -.24$ ,  $p = .02$ ,  $sr^2 = -.14$ ) but not OCB-O ( $\beta = .06$ ,  $p = .52$ ,  $sr^2 = .03$ ) controlling for the DTW and H-H scales. The DCW measure explained unique variance in OCB-I ( $\Delta R^2 = .02$ ,  $F(1, 233) = 5.65$ ,  $p = .02$ ) but not OCB-O ( $\Delta R^2 = .00$ ,  $F(1, 234) = .41$ ,  $p = .52$ ) above and beyond the DTW and H-H scales which provides partial support for hypothesis 14.

## **Discussion**

The purpose of this study was to continue the validation of a contextualized measure of the DCW (Wang et al., 2023) in a sample of organizational leaders. The results of this study

offer considerable support for a contextualized measure of the DCW. As expected, the DCW correlated highly with psychopathy and sadism suggesting high overlap among these traits, however it correlated highest with abusive supervision. Interestingly, upon conducting a CFA on the DTW (Thibault & Kelloway, 2020) and DCW (Wang et al., 2023) items, a five-factor solution provided better fit to the data compared to a three-factor solution where sadism and psychopathy items were combined with the DCW items. The higher relationship between psychopathy and sadism has continued to show up in other studies (e.g., Lee, 2019; Plouffe et al., 2019; Rogers et al., 2018), and has been used to point to the existence of the Dark Core. Due to the high correlation between sadism, psychopathy, and the DCW, this higher relationship supports the existence of a Dark Core. However, the current study provides support to suggest that the Dark Core is a unique factor beyond psychopathy and sadism. The Dark Core measure also positively correlated with all other variables in the current study except organizational citizenship behaviours, which was negatively correlated, as expected. Thus, the Dark Core appears to be separate from existing measures of the Dark Tetrad. These results support the validity of the DCW.

Further, after conducting the bifactor analysis on the DTW scale, the DCW scale highly correlated with the general factor of the DTW scale suggesting that the two factors are similar. Through the exploration of a bifactor analysis, the underlying *g* factor in the DTW scale may provide evidence for the Dark Core phenomenon. The current study also found evidence to support that the DCW scale captures the Dark Core due to the high overlap with the underlying *g* factor in the DTW and the incremental prediction of organizationally relevant outcomes above and beyond the DTW. Moreover, the DCW scale contains fewer items than the DTW scale which provides researchers with a shorter measure of capturing dark personality.

Interestingly, psychopathy items loaded strongest onto the general factor of the DTW providing some support that conceptually, Dark Core research may be a circle back to pure psychopathy research. Further, the DCW was highly correlated with psychopathy suggesting a large overlap among the two constructs. Much of the research in the dark side of personality has focused on defining and establishing new measures of dark traits. However, the current study provides support for an underlying general factor of dark personality that accounts for a significant amount of variance above and beyond other dark traits.

The DCW scale correlated highest with the abusive supervision and self-promotion facets of toxic leadership. This might be explained by looking at the nature of the items for abusive supervision and self-promotion. The abusive supervision items include behaviours with a high degree of boldness and egotistical traits, while lacking empathy and remorse. Self-promotion items involved behaviours like undermining others in order to get ahead or presenting favourably to supervisors at work. These behaviours are similar to the definition of the Dark Core in which people have a tendency toward ethically, morally, and/or socially questionable behaviour. Hare (1996) description of psychopathy represents the abusive supervision and self-promotion items well. The similarity between the abusive supervision, self-promotion items and the definition of psychopathy provided by Hare (1996) may explain the high correlation between abusive supervision and the Dark Core.

A regression analysis showed that the DCW measure made a significant contribution in explaining the variance of CWB's, bullying, toxic leadership, and workplace incivility behaviours. The DCW explained the smallest amount of significant variance for CWB-O, and the narcissism facet of toxic leadership beyond the H-H and DTW scales. The DCW explained the most amount of variance for abusive supervision beyond the H-H and DTW scales. These

relationships between the Dark Core and higher levels of these deviant behaviours correspond with and add to past literature as well as aid in the new scales' criterion-related validity.

The DCW measure did not explain a significant amount of variance for OCB-O. None of the variables in the current study accounted for a significant amount of variance in OCB-O. This could be attributed to the limitations of the predictive ability of dark personality traits. Previous research has found positive traits such as extraversion and agreeableness predict OCBs. Much of the research on H-H and OCB prediction shows a weak to non-existent relationship between the two variables (e.g., Anglim et al., 2018; Lee et al., 2019). Further, research on dark traits ability to predict OCBs has some mixed results (e.g., Schütte et al., 2018; Szabó et al., 2018). The weaker correlation between the Dark Core and Machiavellianism and Narcissism compared to psychopathy and narcissism may explain the lack of relationship between the Dark Core and OCBs. The Dark Core is more similar to psychopathy than is it narcissism and Machiavellianism.

It is also not surprising that the Dark Core did not explain a significant amount of variance for OCB-O because it is a positive behaviour. Most literature on the dark side of personality has focused on predicting negative organizational outcomes using dark personality traits. Similar findings can be found in the DTW measure developed by Thibault and Kelloway (2020). The Dark Tetrad was found to be weakest at predicting positive organizational outcomes such as organizational citizenship behaviours and affective commitment when compared to negative organizational outcomes. This is likely one of the limits to measuring dark personality. Measures of dark personality can predict negative organizational behaviours well but are limited in their ability to predict positive workplace behaviours.

The DCW measure performed best in accounting for variance in scores on abusive supervision. Abusive supervision involves severe and rather extreme behaviours such as publicly belittling subordinates and telling subordinates they are incompetent. These extreme behaviours are well accounted for using the DCW measure because the Dark Core of personality attempts to measure a person's disposition towards anti-social behaviours. These behaviours are similar to the definition of the Dark Core in which people have a tendency toward ethically, morally, and/or socially questionable behaviour. Due to the extremeness of the behaviours involved in abusive supervision, it is unsurprising that the DCW accounted for such a large amount of the variance. The measures of abusive supervision may also be capturing some of the Dark Core. However, these items are oriented specifically towards organizational leaders and their use as a measure of the Dark Core is limited.

As expected, when examining the hierarchical regressions of organizational deviance outcomes, the Dark Core explained unique variance of CWB-I, CWB-O, incivility, bullying, cyber incivility, and cyber bullying behaviours above and beyond the H-H scale of the HEXACO and the DTW scale. H-H significantly accounted for variance in self-promotion, unpredictability, narcissism, incivility, CWB-I, CWB-O, and OCB-I. H-H did not significantly account for variance in bullying, cyber incivility, cyber bullying, abusive supervision or authoritarian leadership, which provides some evidence against previous researchers' suggestions to use the negative pole of the H-H scale to measure the Dark Core (Lee & Ashton, 2005; Vize et al., 2020; Schreiber & Marcus, 2020). This may point to some of the limitations of measuring the positive side of personality as well. While positive personality traits can account for some of the variance in some organizational deviance behaviours, measuring the dark side of personality accounts for significantly more variance in these behaviours.



The results of the current study provide evidence that leaders with Dark Core tendencies may be at risk of exhibiting negative behaviours in the workplace to subordinates and colleagues. Increased levels of toxic leadership, bullying behaviours, counterproductive workplace behaviours and incivility are associated with higher levels of the Dark Core. Assessing an individual's dark personality traits, identifies those who may be more likely to engage in unethical or abusive behaviour. Additionally, leaders play a crucial role in shaping the culture of their organizations. Leaders with high levels of dark personality traits can create toxic work environments characterized by fear, mistrust, and conflict, creating an unhealthy work environment (O'Boyle et al., 2012). Lastly, leaders have a significant impact on the lives of their followers, and it is therefore important that they operate with high levels of integrity and ethical behaviour. The current study provides a measure of the Dark Core of personality that can be used by researchers to better understand the role of the Dark Core of personality and workplace related behaviours in both leaders and employees.

The ability of the Dark core to account for incremental variance above the Dark Tetrad, provides support for the fact that the Dark Core is a separate and a potentially underlying construct compared to the Dark Tetrad and other dark traits. Furthermore, a confirmatory factor analysis supported this with a better model fit when the DCW was separated from the Dark Tetrad constructs. Lastly, through a bifactor analysis, the Dark Core was found to highly correlate with the general factor of the DTW providing evidence for convergent related validity of the DCW.

### **Potential Limitations**

The first limitation of the current research is that it was conducted cross-sectionally in an online sample. Cross-sectional data is limited in its ability to draw causal inferences. While this

is a limitation, previous research supports the idea that personality traits are relatively stable over time (e.g., Thibault & Kelloway, 2020) but there is research to suggest that personality can change because of employment or educational experiences (e.g., Plant, 1962; Webster et al., 1962; Dahmann & Anger, 2014). Also, personality has been heavily researched as an antecedent to organizationally relevant outcomes. Therefore, while it would have been beneficial to assess the stability of the scale over time.

Further, the cross-sectional nature of the data can impact the relationship between variables through common method variance or endogeneity. The high correlations could also be an issue of common method variance. In simple bivariate linear regression models, common method variance has been found to inflate an observed relationship when the effect of common method variance on both observed variables is equal, however it can deflate observed relationships when common method variance has an asymmetric effect on both observed variables (Siemsen et al., 2010). Therefore, it is possible that some of the findings are artificially inflated because of the cross-sectional nature of the data.

Another limitation of the study is the DCW (Wang et al., 2023) definition of the trait sadism. Wang et al. (2023) developed their sadism item using Bader et al. (2022) definition which is that sadism represents a deficit in the response to the distress of others while previous research (e.g., Paulhus, 2014) define sadism as seeking out opportunities to watch others in distress for amusement. The DCW may be deficient in that it does not represent Paulhus (2014) view of sadism but rather a newer definition provided by Bader et al. (2022).

Given the self-report nature of the data, there is also the potential for respondents to respond inaccurately, especially considering they were asked to report engaging in acts of organizational deviance and to possessing socially aversive traits. This limits the current findings

to only situations where respondents have nothing at stake and little to no incentive to respond in a socially desirable manner. It is difficult for self-report measures to control for social desirability therefore, future studies could use other raters such as coworkers or subordinates to reduce socially desirable responding from self-report data.

Lastly, due to the self-report nature of the data, the results may be influenced by the Dunning Kreuger Effect whereby people who are highest on dark traits may not know they are dark. Participants who are highest on the dark traits may report they are engaging in more positive behaviours and less negative behaviours because of the inability to objectively analyze their personality and their workplace behaviours. This limitation again calls for future research to use other raters for data collection.

### **Future Directions**

The temporal stability of the relationship between the Dark Core and organizational outcomes should be investigated by researchers. Incorporating both longitudinal research designs and the use of non-self-report measures would be beneficial. Other reports of organizational behaviours obtained by subordinates, coworkers, supervisors, or organizational records may provide valuable criteria for further research into Dark Core personality traits and its role in organizational outcomes.

The current study assessed the relationship between leaders' personality traits, self-report leadership styles, and organizational outcomes. Future research should further examine the relationship between leaders' personality on subordinate outcomes. While this contributes to a relatively understudied area of research examining the potential effects of leaders' personality, especially the Dark Core, on their employees. It would be especially interesting to examine the link between employees' perceptions of their leaders' personality and employee outcomes.

Similarly, future research should investigate whether the Dark Core measure could be modified to measure employees' perceptions of their leaders while maintaining criterion-related validity.

Considering the large overlap between psychopathy and the Dark Core in the current study, future research should investigate the relationship between the Dark Core and psychopathy more closely. Including more measures of psychopathy, perhaps both subclinical and clinical levels, to better understand the relationship between the Dark Core and psychopathy would provide researchers with a better conceptual understanding of the Dark Core in dark personality research.

Lastly, one of the limitations of personality related research is the ability to fake self-report assessments in practical settings. While there are ways to reduce fake ability of assessments (e.g., conditional reasoning assessments, gamification), future research should look to develop and establish measures of the Dark Core which cannot be faked for use in selection.

### **Practical Implications**

When the goal is to predict counterproductive workplace behaviours or general workplace deviance, selection systems frequently contain personality tests (e.g., HEXACO) or integrity tests (created to predict dishonest behaviours at work; Marcus et al., 2007). To increase prediction accuracy in selection, some personality researchers advise using a measure of the dark side of personality in addition to positive personality measures (e.g., Big Five; Grijalva & Newman, 2015). However, rather than measuring the clinical versions of dark personality, the usage of Dark Core screening instruments should evaluate the subclinical/regular personality traits (Guenole, 2014). This is particularly crucial because in O'Boyle et al. (2012) review they discovered that practically all the studies that employed the dark traits as a screening tool did so at a clinical level. According to Dilchert et al. (2014), most job seekers have normal personality

qualities, hence we would like a measure that can separate many people from one another (i.e., variances in everyday dark personality features). Furthermore, utilising scales to assess clinical variations of dark traits may raise ethical concerns because they could be regarded as medical evaluations and may potentially capture diagnosable mental health issues (Dilchert et al., 2014). While the DCW was developed to be used in a research context as it is easily fakeable, the results of the current study can inform practitioners of the impacts of individuals with dark traits.

Understanding dark traits will help us to understand other aspects of organizational behaviour as well. For example, Kelloway et al. (2023) found that psychopathy moderated the effects of experienced incivility such that individuals with high levels of psychopathy were less affected by, but more likely to respond to, experienced incivility. The current study provides researchers and practitioners information on the relationship between the Dark Core and organizationally relevant outcomes such as bullying behaviours, incivility, and toxic leadership. The DCW (Wang et al., 2023) may be used in future studies to further investigate the relationship between the Dark Core and other aspects of organizational behaviour.

### **Conclusion**

In summary, the current study validated a workplace specific measure of the Dark Core in a population of leaders that could be used by researchers as well as organizations. The DCW scale was correlated with and accounted for variance in scores on workplace deviance as well as other organizationally relevant behaviours. Furthermore, other personality-outcome relationships that had little empirical evidence were examined. With the growing interest in the dark side of personality, the current research contributes to the growing body of research as well as builds on the sparse research available on the Dark Core of personality. With the development of a context-specific measure of the Dark Core, more research in this area should follow.



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## Appendix A: Tables and Figures

Table 1.

Descriptive Statistics and Intercorrelations Among Study Variables.

Variables	Raw M	Raw SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	22	24
1 Age	41.42	12.24	--																							
2 Gender	1.40	.50	.06	--																						
3 Position Tenure	4.55	1.06	.55**	-.03	--																					
4 Num. Direct Reports	2.32	.60	.06	-.06	.04	--																				
5 Management Level	2.41	1.60	.26**	-.06	.35**	.25**	--																			
6 DTW - N	2.80	.69	-.05	-.13	.01	.04	.35**	--																		
7 DTW - M	2.14	.92	-.19**	-.17*	-.21**	.18**	.04	.32**	--																	
8 DTW - P	1.30	.53	-.21**	-.16*	-.23**	0.13	-.07	.29**	.49**	--																
9 DTW - S	1.24	.51	-.18**	-.20**	-.17*	.25**	.06	.27**	.48**	.78**	--															
10 DCW	1.41	.62	-.17*	-.25**	-.16*	.31**	.09	.40**	.54**	.71**	.69**	--														
11 TL - SP	1.61	.65	-.24**	-.13	-.27*	.27**	.07	.28**	.55**	.66**	.55**	.72**	--													
12 TL - AS	1.34	.53	-.15*	-.17*	-.15*	.17*	-.03	.29**	.47**	.66**	.66**	.75**	.71**	--												
13 TL - Unpred	1.50	.67	-.13*	-.11	-.19*	.24**	.04	.22**	.44**	.59**	.56**	.62**	.56**	.70**	--											
14 TL - Narc	2.25	.87	-.22**	-.12	-.14*	.10	.03	.54**	.42**	.38**	.33**	.47**	.44**	.39**	.38**	--										
15 TL - AL	1.65	.61	-.03	-.15*	-.02	.16*	.00	.29**	.45**	.53**	.50**	.59**	.57**	.69**	.53**	.48**	--									
16 CWB - I	.24	.61	-.21**	-.16*	-.26**	.18**	.07	.23**	.35**	.60**	.68**	.64**	.53**	.69**	.63**	.28**	.47**	--								
17 CWB - O	.52	.65	-.28**	-.06	-.35**	.29**	.08	.06	.35**	.46**	.42**	.47**	.48**	.47**	.52**	.19**	.29**	.65**	--							
18 Incivility	.42	.65	-.16*	-.11	-.24**	.10	.02	.11	.32**	.44**	.47**	.52**	.44**	.53**	.59**	.29**	.40**	.76**	.67**	--						
19 NAQ	.16	.38	-.20**	-.14*	-.25**	.17*	.07	.22**	.38**	.62**	.68**	.64**	.56**	.71**	.63**	.28**	.46**	.88**	.64**	.79**	--					
20 OCB-I	4.08	.63	.09	.06	.11	.30**	.07	.02	-.37**	-.38**	-.32**	-.37**	-.48**	-.41**	-.35**	-.15*	-.36**	-.26**	-.36**	-.34**	-.31**	--				
21 OCB-O	3.30	.44	-.16*	-.03	-.13	-.01	.15*	.07	.03	-.02	-.06	.05	.16*	.07	-.04	.02	-.05	.07	.11	.07	.11	.23**	--			
22 Cyber incivility	.24	.43	-.19**	-.11	-.24**	.03	-.02	.17*	.36**	.60**	.60**	.62**	.59**	.67**	.56**	.30**	.47**	.74**	.66**	.70**	.78**	-.34**	.05	--		
23 Cyber bullying	.12	.34	-.18**	-.15*	-.20**	.30**	.05	.20**	.33**	.66**	.69**	.63**	.55**	.67**	.63**	.26**	.46**	.81**	.63**	.64**	.83**	-.32**	.06	.82**	--	
24 H-H	3.53	.74	.37**	.05	.32**	.31**	.10	-.25**	-.40**	-.41**	-.33**	-.49**	-.55**	-.39**	-.39**	-.44**	-.33**	-.37**	-.43**	-.32**	-.36**	.29**	-.13	-.35**	-.36**	--

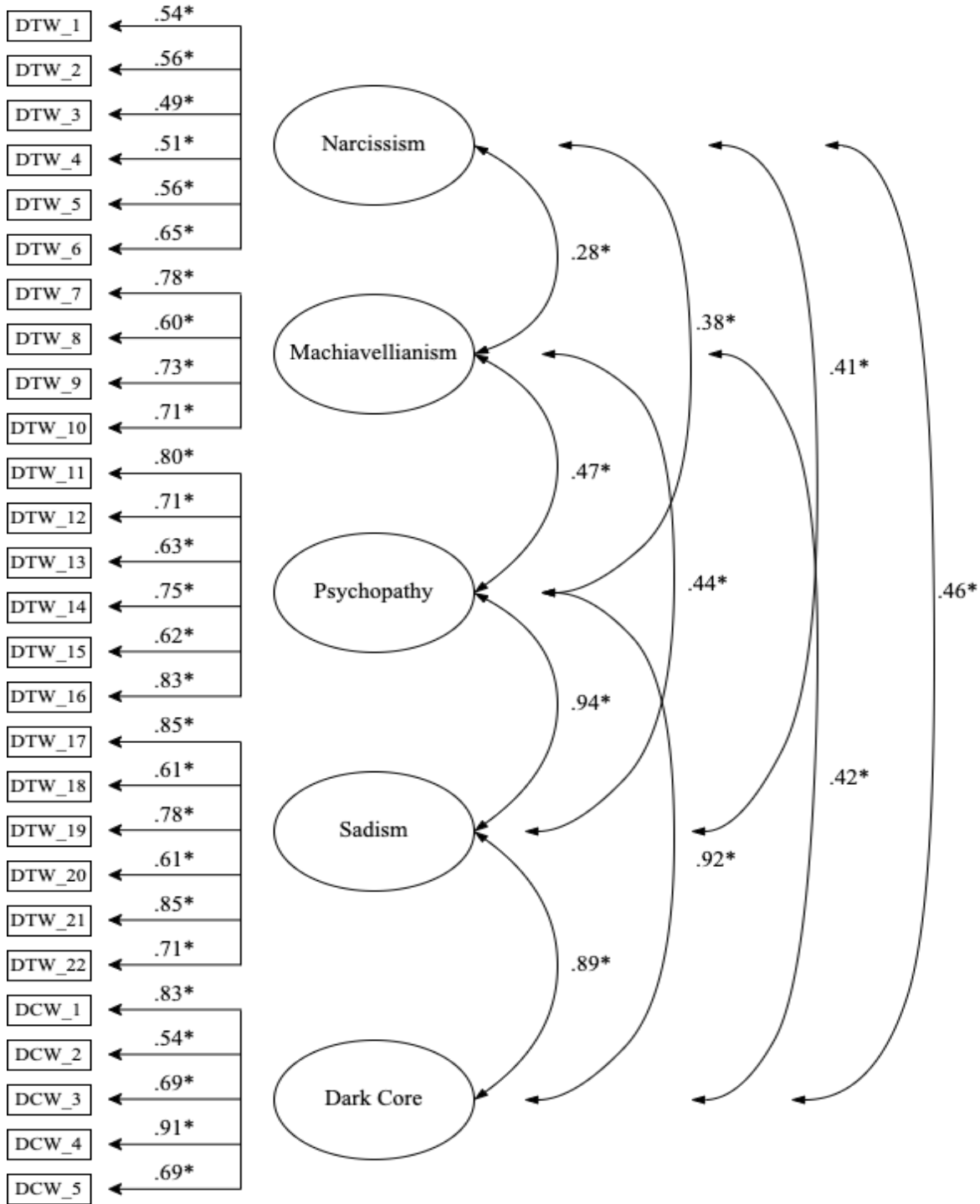
*Note.*  $N = 253$ . Gender: Man = 1, Woman = 2. Only 1 participant identified as non-binary and they were removed for any gender correlations to improve interpretability, however, this participant was retained for all other correlations. Position Tenure: 1= less than 3 months, 2 = 3 – 6 months, 3 = 6 months to a year, 4 = more than 1 year, 5 = more than 5 years, 6 = more than 10 years. Num. Direct Reports = number of direct reports: 1 = 0, 2 = 1-10, 3 = 10-50, 4 = 50-100, 5 = 100+. DTW-N = Dark Tetrad at Work – narcissism, DTW-M = Dark Tetrad at Work – Machiavellianism, DTW-P = Dark Tetrad at Work – psychopathy, DTW-S = Dark Tetrad at Work – sadism, DCW = Dark Core at Work, TL-SP, Toxic Leadership – self-promotion, TL-AS = Toxic Leadership – abusive supervision, TL-Unpred = Toxic Leadership – unpredictability, TL-Narc = Toxic Leadership – narcissism, TL-AL = Toxic Leadership –

authoritarian leadership, CWB-I = counter productive work behaviours – individual, CWB-O = counter productive work behaviours – organizational, OCB-I = organizational citizenship behaviours – individual oriented, OCB-O = organizational citizenship behaviours – organizational oriented.

\* $p < .05$ , \*\* $p < .01$ .

Figure 1.

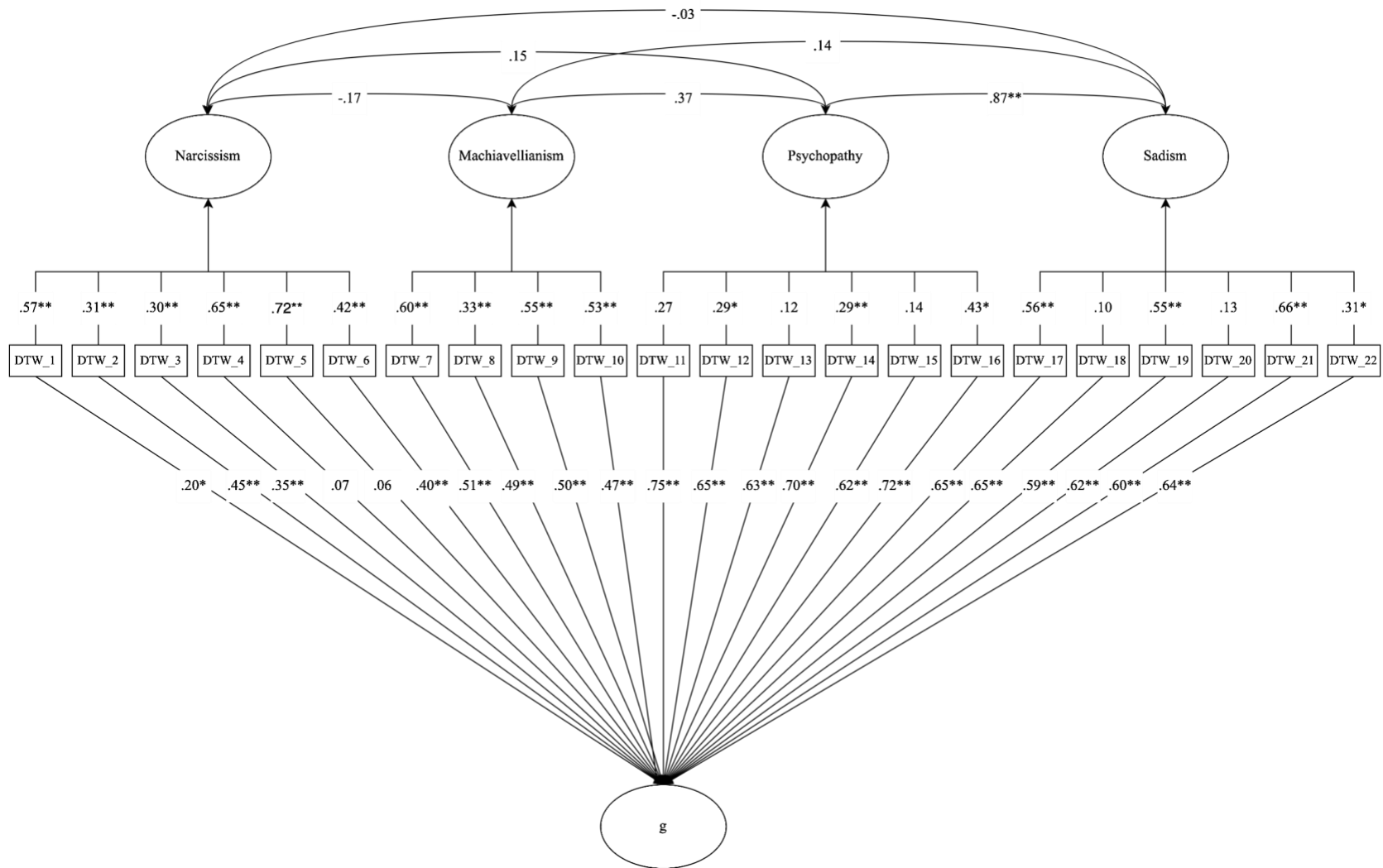
Standardized Loadings and Intercorrelations.



\* $p < .001$

Figure 2.

Standardized Loadings for DTW Bifactor Analysis.



\* $p < .05$ , \*\* $p < .001$

Table 2.

## Results of the Hierarchical Regression Analysis.

Predictor	Final Standardized Betas												
	TL-SP	TL-AS	TL-U	TL-N	TL-AL	Incivility	CWB-I	CWB-O	OCB-I	OCB-O	NAQ	Cyber-I	Cyber-B
Step 1													
H-H	-.27***	-.07	-.13*	-.28***	-.08	-.12*	-.12*	-.25***	.16*	-.12	-.08	-.07	-.09
DTW – Narcissism	.02	.08	.00	.44***	.13*	-.08	.01	-.14*	.20**	.06	.02	-.02	.01
DTW – Machiavellianism	.20***	.08	.12*	.10	.14*	.07	-.01	.06	-.19**	.02	.04	.01	-.09
DTW – Psychopathy	.40***	.30***	.27**	.06	.26**	.15	.13	.28**	-.27**	.01	.16*	.34***	.31***
DTW – Sadism	.08	.35***	.29***	.03	.17*	.38***	.58***	.21*	-.07	-.12	.54***	.33***	.46***
$\Delta R^2$	.58***	.52***	.45***	.44***	.35***	.34***	.55***	.36***	.25***	.02	.54***	.44***	.53***
Step 2													
DCW	.39***	.56***	.38***	.20*	.43***	.33***	.28***	.20*	-.24*	.06	.24***	.34***	.25***
$\Delta R^2$	.06***	.11***	.05***	.01*	.07***	.04***	.03***	.01*	.02*	.00	.02***	.04***	.02***
Total R <sup>2</sup>	.64***	.63***	.50***	.45***	.42***	.38***	.58***	.37***	.27***	.02	.56***	.48***	.55***

*Note.*  $N = 253$ . H-H = honesty-humility, DTW-Narcissism = Dark Tetrad at Work – narcissism, DTW-Machiavellianism = Dark Tetrad at Work – Machiavellianism, DTW-Psychopathy = Dark Tetrad at Work – psychopathy, DTW-Sadism = Dark Tetrad at Work – sadism, DCW = Dark Core at Work, TL-SP, Toxic Leadership – self-promotion, TL-AS = Toxic Leadership – abusive supervision, TL-U = Toxic Leadership – unpredictability, TL-N = Toxic Leadership – narcissism, TL-AL = Toxic Leadership – authoritarian leadership, CWB-I = counter productive work behaviours – individual, CWB-O = counter productive work behaviours –



organizational, OCB-I = organizational citizenship behaviours – individual oriented, OCB-O = organizational citizenship behaviours – organizational oriented, NAQ = negative acts questionnaire, Cyber-I = cyber incivility, Cyber-B = cyber bullying.

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

Appendix B: Dark Core at Work (Wang et al., 2022)

Please rate your agreement or disagreement with each item using the following scale:

- 1-Strongly Disagree
- 2-Disagree
- 3-Neither Agree nor Disagree
- 4-Agree
- 5-Strongly Agree

- 1. I enjoy giving coworkers misleading information.
- 2. I deserve more company resources than others.
- 3. I always get even when someone hurts me.
- 4. I have made fun of people at work so that they know I am in control.
- 5. When I see someone being treated unfairly at work, I don't feel very much pity for them.

Appendix C: Dark Tetrad at Work Scale (Thibault & Kelloway, 2020):

Please rate your agreement or disagreement with each item using the following scale:

- 1-Strongly Disagree
- 2-Disagree
- 3-Neither Agree nor Disagree
- 4-Agree
- 5-Strongly Agree

**Narcissism**

- (1) My position at work is prestigious.
- (2) I am much more valuable than my coworkers.
- (3) I demand respect at work.
- (4) People always pay attention to me at work.
- (5) Others admire me at work.
- (6) I like being the center of attention at work.

**Machiavellianism**

- (1) I do not trust others at work.
- (2) At work, you always have to look out for number one.
- (3) At work, people backstab each other to get ahead.
- (4) At work, people are only motivated by personal gain.

**Psychopathy**

- (1) I don't care if my work behavior hurts others.
- (2) I have been told I act rashly at work.
- (3) When I'm at work, I don't tend to think about the consequences of my actions.
- (4) I like to mooch off my coworkers.
- (5) I'm rather insensitive at work.
- (6) I don't care if I accidentally hurt someone at work.

**Sadism**

- (1) I love to watch my boss yelling at my coworkers.
- (2) I can dominate others at work using fear.
- (3) It's funny to watch people make mistakes at work.
- (4) I never get tired of mocking my coworkers.
- (5) I would laugh if I saw someone get fired.
- (6) I have daydreams about hurting people I work with.

Appendix D: HEXACO-60 (H-H Subscale; Ashton & Lee, 2009)

1 = strongly disagree, 2 = disagree, 3 = neutral (neither agree nor disagree), 4 = agree, 5 = strongly agree

Please read each statement and decide how much you agree or disagree with that statement. Then write your response in the space next to the statement using the following scale:

1. I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed.
2. If I knew that I could never get caught, I would be willing to steal a million dollars.
3. Having a lot of money is not especially important to me.
4. I think that I am entitled to more respect than the average person is.
5. If I want something from someone, I will laugh at that person's worst jokes.
6. I would never accept a bribe, even if it were very large.
7. I would get a lot of pleasure from owning expensive luxury goods.
8. I want people to know that I am an important person of high status.
9. I wouldn't pretend to like someone just to get that person to do favors for me.
10. I'd be tempted to use counterfeit money, if I were sure I could get away with it.

Appendix E: Negative-Acts Questionnaire (Einarsen et al., 2009)

During the last past six months, have you...

- 1-never,
- 2-now and then,
- 3-monthly,
- 4-weekly,
- 5-daily

- 1. Withheld information which affects someone's performance
- 2. Humiliated or ridiculed someone in connection with their work
- 3. Spread gossip about someone
- 4. Ignored or excluded someone
- 5. Made insulting or offensive remarks about someone's person, attitudes, or private life
- 6. Shouted at someone or been angry at someone
- 7. Engaged in insulting behaviour
- 8. Hinted or signaled someone that they should quit their job
- 9. Repeatedly reminded someone of their errors or mistakes
- 10. Ignored or given a hostile reaction when someone approached you
- 11. Repeatedly criticized someone with respect to their work and effort
- 12. Ignored someone's opinions
- 13. Carried out practical jokes on someone you do not get along with
- 14. Made allegations against someone
- 15. Pressured someone to not claim something to which by right they are entitled to
- 16. Subjected someone to excessive teasing and sarcasm
- 17. Engaged in threats of violence or physical or actual abuse

## Appendix F: Counter-Productive work Behaviour (Bennett & Robinson, 2000)

In the past 6 months, how often have you behaved at work in the following ways?

- 0 - Never
- 1 – Sporadically
- 2 – Now and Then
- 3 - Regularly
- 4 – Often
- 5 – Very Often
- 6 - Daily

### **Interpersonal Deviance**

- 1. Made fun of someone at work.
- 2. Said something hurtful to someone at work
- 3. Made an ethnic, religious, or racial remark at work
- 4. Cursed at someone at work.
- 5. Played a mean prank on someone at work.
- 6. Acted rudely toward someone at work.
- 7. Publicly embarrassed someone at work

### **Organizational Deviance**

- 8. Taken property from work without permission.
- 9. Spent too much time fantasizing or daydreaming instead of working.
- 10. Falsified a receipt to get reimbursed for more money than you spent on business expenses.
- 11. Taken an additional or longer break than is acceptable at your workplace.
- 12. Come in late to work without permission.
- 13. Littered your work environment.
- 14. Neglected to follow your boss's instructions.
- 15. Intentionally worked slower than you could have worked.
- 16. Discussed confidential company information with an unauthorized person.
- 17. Used an illegal drug or consumed alcohol on the job.
- 18. Put little effort into your work.
- 19. Dragged out work in order to get overtime.

## Appendix G: Toxic Leadership (Schmidt, 2008)

Please indicate the degree to which each behaviour applies to you using the following scale:

- 1-Strongly Disagree
- 2-Disagree
- 3-Neither Agree nor Disagree
- 4-Agree
- 5-Strongly Agree

I...

### **Self-Promotion**

- (1) Drastically change my demeanor when my supervisor is present.
- (2) Deny responsibility for mistakes made by my unit.
- (3) Will only offer assistance to people who can help me get ahead.
- (4) Accept credit for successes that don't belong to me.
- (5) Act only in the best interest of my next promotion.

### **Abusive Supervision**

- (1) Ridicule subordinates.
- (2) Hold subordinates responsible for things outside their job descriptions.
- (3) Do not consider subordinates commitments outside of work.
- (4) Speak poorly about subordinates to other people in the workplace.
- (5) Publicly belittle subordinates.
- (6) Remind subordinates of their past mistakes and failures.
- (7) Tell subordinates they are incompetent.

### **Unpredictability**

- (1) Have explosive outbursts.
- (2) Allow my current mood to define the climate of the workplace.
- (3) Allow my current mood to affect my vocal tone and volume.
- (4) Express anger at subordinates for no reason.
- (5) Cause subordinates to try to read my moods.
- (6) Affect the emotions of subordinates when impassioned.
- (7) Vary in my degree of approachability.

### **Narcissism**

- (1) Am personally entitled.
- (2) Am destined to enter the highest ranks of my organization.
- (3) Am more capable than others.
- (4) Believe I am an extraordinary person.
- (5) Thrive on compliments and personal accolades.

### **Authoritarian Leadership**

- (1) Control how subordinates complete their tasks.
- (2) Invade the privacy of subordinates.
- (3) Do not permit subordinates to approach goals in new ways.

- (4) Ignore ideas that are contrary to my own.
- (5) Am inflexible when it comes to organizational policies, even in special circumstances.
- (6) Determine all decisions in the unit whether they are important or not.



Appendix H: Straightforward Incivility Scale - Instigated incivility (Leiter & Day, 2013)

In the past six months, how often have you behaved at work in the following ways?

0-Never 1-Sporadically, 2-Now and Then, 3-Regularly, 4-Often, 5-Very Often, 6-Daily

1. I behaved without consideration for someone
2. I spoke rudely to someone
3. I behaved rudely to someone
4. I excluded someone
5. I ignored someone

## Appendix I: Cyber incivility (Lim & Teo, 2009)

In the past six months how often have you engaged in each of these behaviours towards someone you work with (e.g., a supervisor, colleague, or subordinate).

- 1-Not at all
- 2-Sometimes
- 3-Half the Time
- 4-Most of the Time
- 5-All the time

1. Said something hurtful to them through email.
2. Made demeaning or derogatory remarks about them through email.
3. Inserted sarcastic or mean comments between paragraphs in emails.
4. Put them down or was condescending to them in some way through email.
5. Sent them emails using a rude and discourteous tone.
6. Used CAPS to shout at them through email.
7. Not replying to their email at all.
8. Ignored a request (e.g., schedule a meeting) that they made through email.
9. Replied to their emails but did not answer their queries.
10. Used emails for time-sensitive messages (e.g., canceling or scheduling a meeting on short notice).
11. Paid little attention to a statement made by them through email or showed little interest in their opinion.
12. Not acknowledging that you have received their email even when they sent a “request receipt” function.
13. Used email for discussions that would require face-to-face dialogue.

Appendix J: Workplace cyber bullying measure (Farley et al., 2016) – 17 items

In the past six months how often have you engaged in each of these behaviours towards someone you work with (e.g., a supervisor, colleague, or subordinate).

0-never

1-now and then

2-at least monthly

3-at least weekly

4-daily

1. Sent messages that have a disrespectful tone.
2. Blamed a supervisor/colleague/subordinate unfairly for work problems.
3. Sent aggressively worded messages (e.g., using all capital letters, bold font or multiple exclamation marks).
4. Had another organizational member copied into messages that reflect negatively on the supervisor/colleague/subordinate you are communicating with.
5. Criticized a supervisor/colleague/subordinate's work unfairly.
6. Sent rude demands to a supervisor/colleague/subordinate.
7. Sent conflicting information.
8. Bypassed a supervisor/colleague/subordinate in group communications that are relevant to their work role.
9. Make a supervisor/colleague/subordinate the subject of communications that undermine them.
10. Sent unreasonable work demands.
11. Made unfair personal criticism (e.g., on a supervisor/colleague/subordinate's character, appearance, opinions).
12. Spread negative rumours or gossip about a supervisor/colleague/subordinate.
13. Shared personal information about a supervisor/colleague/subordinate without their permission.
14. Sent messages that contain abusive language aimed at a supervisor/colleague/subordinate
15. Sent threatening messages.
16. Sent messages unfairly questioning a supervisor/colleague/subordinate's competence.
17. Tried to make a supervisor/colleague/subordinate the only person excluded from social communications between colleagues.

Appendix K: Organizational citizenship behaviour (Williams & Anderson, 1991)

For each statement, please indicate how much you agree with each statement on the scale from 1 to 5.

1-strongly disagree, 2-disagree, 3-neither disagree nor agree, 4-agree, 5-strongly agree

OCB-I

1. I help others who have been absent
2. I help others who have heavy work loads
3. I help orient new people even though it is not required
4. I assist my supervisor with his/her work (when not asked)
5. I take time to listen to co-workers' problems and worries
6. I take a personal interest in other employees
7. I pass along information to co-workers

OCB-O

8. My attendance at work is above the norm
9. I give advance notice when I am unable to come to work
10. I take undeserved work breaks (R)
11. A great deal of my time is spent on personal phone/email/other communications (R)
12. I complain about insignificant things at work (R)
13. I conserve and protect organizational property
14. I adhere to informal rules devised to maintain order

## Appendix L: Forced Response Attention Check Items

These items will be distributed equally throughout the survey.

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
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1. Please select “Neutral”
2. Please select “Strongly Agree”
3. Please select “Strongly Disagree”

## Appendix M: Self-Reported Attention Check Items

These items will be distributed equally throughout the survey.

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
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1. So far, I have read through each question thoroughly.
2. I have responded honestly to each question that has been presented.
3. I have responded to questions without reading them.

## Appendix N: Demographic Questions

Are you currently employed full-time?

Scale:

- *Yes – Please proceed.*
- *No – You are not eligible for participating in this study. Thank you for your interest!*

What is your age?

Scale: *drop-down options*

How do you currently describe your gender identity?

Scale:

- *Male*
- *Female*
- *Non-binary*
- *Prefer not to answer*

With which ethnic group(s) do you identify? Select all that apply.

Scale:

- *North American Indigenous*
- *Hispanic, Latino or Spanish origin (e.g., Mexican, Puerto Rican, Cuban, Salvadoran, Dominican, Columbian)*
- *White (e.g., German, Irish, English, Italian, Polish, French)*
- *Asian (e.g., Chinese, Filipino, Asian Indian, Vietnamese, Korean, Japanese)*
- *Middle Eastern or North African (e.g., Lebanese, Iranian, Egyptian, Syrian, Moroccan, Algerian)*
- *Black (e.g., Jamaican, Haitian, Nigerian, Ethiopian, Somalian)*
- *Native Hawaiian or Other Pacific Islander (e.g., Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, Marshallese)*
- *Another race, ethnicity or origin, please specify: \_\_\_\_\_*
- *Prefer not to answer*

Which of the following best describes your role in your current organization?

- *Management*
- *Administrative staff*
- *Support staff*
- *Trained professional*
- *Skilled laborer*
- *Consultant*
- *Researcher*
- *Other (please specify): \_\_\_\_\_*

Please enter you **Education**:

Scale:

- *12<sup>th</sup> grade or less*
- *Graduate high school or equivalent*
- *Some college, no degree*
- *College degree*
- *Bachelor's degree*
- *Post-graduate degree*
- *Other \_\_\_\_\_*

Which category does your current line of employment best belong to?

Scale:

- *Transportation*
- *Pharmaceutical*
- *Telecommunications*
- *Manufacturing*
- *Mining*
- *Hospitality*
- *Media and News*
- *Agriculture*
- *Computer and technology*
- *Education*
- *Finance and Economics*
- *Health Care*
- *Military*
- *Other \_\_\_\_\_*

How many people report to you directly at work?

- *0*
- *1-10*
- *10-50*
- *50-100*
- *100+*

What level of management would you consider your current role?

- *First Level (i.e., supervisors, foremen, section officers, superintendents)*
- *Second Level (i.e., branch and departmental managers)*
- *Third Level or higher (i.e., board of directors and the chief executive or managing director, C-Suite)*

How long have you been in your current management/supervisory role?

- *Less than 3 months*
- *3 – 6 months*
- *6 months to a year*
- *More than 1 year*
- *More than 5 years*
- *More than 10 years*