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# **Psychopathy and leadership effectiveness: Conceptualizing and testing three models of successful psychopathy**

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### Abstract

Research on the relationship between psychopathy and leadership effectiveness has adopted very different perspectives on psychopathy. To advance this field of research, the current paper introduces an overarching framework of “successful psychopathy” (Lilienfeld et al., 2015) to the leadership domain, comprising three conceptual models (the *differential-severity model*, the *moderated-expression model*, and the *differential-configuration model*) and their “hybrid” forms, which are combinations of two or three models. We test the three alternative conceptual models and four hybrid models in two independent samples of leader-subordinate dyads ( $N_1 = 178$  and  $N_2 = 668$ ) whereby leaders’ self-reported psychopathy is related to a range of subordinate-rated effectiveness criteria, including three performance dimensions and charismatic leadership. A recurrent pattern of findings across both studies provides evidence for differential effects for the various psychopathy subdimensions, whereas little support was found for the models assuming curvilinear and/or moderated effects. Implications for research on leader psychopathy are discussed.

Keywords: successful psychopathy; psychopathic traits; leadership effectiveness; job performance; charismatic leadership

### **Psychopathy and leadership effectiveness: Conceptualizing and testing three models of successful psychopathy**

There has long been an interest in the link between psychopathy and leadership. Headlines such as “*Watch out for snakes in suits*” (Gumede, 2008), “*Masters of manipulation: Psychopaths rule the world*” (Hagopian, 2014), and “*The devil in the boardroom: Corporate psychopaths and their impact on business*” (Wellons, 2012) all attest to a general concern for the presence of psychopathic traits in leaders. Only recently, however, studies have provided empirical support for the idea that psychopathic traits are more common among those in leadership positions (Babiak et al., 2010; Lilienfeld et al., 2014; Spencer & Byrne, 2016). Moreover, recent meta-analytic evidence supports the positive relation between psychopathy and leadership emergence (Landay et al., 2019), such that individuals with psychopathic traits are more likely to attain leadership positions.

Although recent efforts brought more clarity regarding the relationship between psychopathy and leadership emergence, it is still unclear how psychopathic traits relate to leadership effectiveness – which refers to the actual *performance* of the leader or whether the leader is perceived as effective (Hogan & Kaiser, 2005). Despite the fact that psychopathic traits are generally believed to be detrimental to job performance *in general* (O’Boyle et al., 2012), mixed evidence has been found regarding this association in a *leadership context*. Whereas some studies approached psychopathy as a potential dispositional weakness of leaders, and found that psychopathy in leaders is systematically associated with lower ratings of job performance (Babiak et al., 2010; Blickle et al., 2018), others showed that psychopathy can be an asset for leaders and predict better leadership abilities (Lilienfeld, Waldman, et al., 2012), including a more charismatic leadership style (Babiak et al., 2010; Costello et al., 2018). Further obfuscating this research area, other studies have approached psychopathy as a multifaceted construct, showing that the nature and strength of the association with leadership

criteria depends on the specific psychopathy facets being considered (e.g., Neo et al., 2018). Finally, Landay et al. (2019) investigated curvilinear relationships between psychopathy and leadership effectiveness, acknowledging that psychopathy can be a strength for leaders, but only up to a certain point after which it becomes harmful.

In sum, notwithstanding the substantial contributions that have recently been made to the psychopathy literature, the specific nature of the relationship between psychopathic traits and leadership effectiveness remains to be settled. There is a dearth of empirical studies involving the active participation of business leaders for psychopathy research (see for instance Landay et al., 2019). Moreover, an integration of existing findings on this topic is hindered by the fact that studies are conducted from very different perspectives on psychopathy (e.g., as a weakness, a strength, or a strength that can become a weakness; as unidimensional or multifaceted constructs). This diversity of perspectives, combined with the absence of a conceptual framework to organize research on leader psychopathy might be responsible for the existing ambiguities, and consequently, may hinder progress in the field. Despite these difficulties, however, it is clear that the generally believed negative impact of psychopathy does not always hold for leadership effectiveness (Landay et al., 2019; Lilienfeld, Waldman, et al., 2012). In that respect, leaders with psychopathic traits could be considered as a special case of “successful psychopathy” –which is a phenomenon that has been described in individuals who display many of the core features of psychopathy while achieving success (p. 298; Lilienfeld et al., 2015).

In this paper, we propose that studying psychopathy in leaders from the perspective of successful psychopathy can serve as an organizing framework for the various approaches described above (and others). Specifically, the framework of successful psychopathy comprises three alternative conceptual models that have been discussed in the psychopathy literature (Hall & Benning, 2006; Lilienfeld et al., 2015), but have not yet been introduced

formally in the organizational sciences. However, as is further illustrated below, many of the earlier studies on psychopathy and leadership effectiveness can be placed under one of the three perspectives within this overarching framework, be it by either stressing the multidimensionality of psychopathy, examining potential moderators of psychopathy-outcome relationships, or by exploring curvilinear effects. By summarizing and explicitly testing these three perspectives, we respond to earlier calls in the “dark” leadership literature to better embrace this type of complexity (e.g., LeBreton et al., 2018; Spain et al., 2014). Further, by formulating and testing hybrid models resulting from the combination of two or more models, we offer an exploratory path toward much-needed integration of this growing field.

In the current study, the three basic models for successful psychopathy *and* a set of hybrid models, which combine these three major perspectives, are tested in two different samples of leader-subordinate dyads. In order to obtain a nuanced picture of leadership effectiveness, these models relate leader psychopathic traits to a range of four subordinate-rated success indicators, covering aspects of both the leaders’ performance on the job and his/her leadership style. Regarding performance, we include three dimensions that have been previously distinguished in applied psychology (e.g., Johnson, 2001). More specifically, *task performance* refers to the quality of the work regarding the leader’s job responsibilities (Renn & Fedor, 2001); *contextual performance* refers to interpersonal facilitation (Van Scotter & Motowidlo, 1996; cf. ‘extra-role behavior’ or OCB), and *adaptive* performance refers to dealing with uncertain, unpredictable, or stressful situations at work (Pulakos et al., 2000). In addition, leader psychopathy is also examined in relation to charismatic leadership, given that leadership research has repeatedly considered this style as a relevant indicator of effectiveness (e.g., Babiak et al., 2010; Galvin et al., 2010; Grijalva et al., 2015; Landay et al., 2019).

### **The Psychopathic Personality**

In “*The Mask of Sanity*”, Cleckley (1941) was the first to describe the specific configuration of traits that capture the essence of the psychopathic personality. Psychopaths were described as superficially charming, self-centered, fearless, impulsive, articulate, callous, and guiltless. As soon as psychopathy became a topic of interest in I/O psychology (Babiak, 1995), scholars started to speculate about its relationship with leadership (e.g., Babiak & Hare, 2006; Furnham, 2007), usually focusing on subclinical levels under the name of *corporate* psychopathy.

Regardless of the specific conceptualization, researchers tend to agree that psychopathy is characterized by a constellation of interpersonal, affective, and behavioral characteristics (Hare, 1991; LeBreton et al., 2006). The triarchic model of psychopathy (Patrick et al., 2009) offers a helpful framework uniting these core features into boldness (e.g., grandiosity, interpersonal dominance), meanness (e.g., lack of empathy, callous), and disinhibition (e.g., impulsivity, irresponsibility).

In search for a better understanding of the construct, research has also looked at the associations of psychopathy with general personality traits (e.g., Decuyper et al., 2009; Gaughan et al., 2012; Ruchensky & Donnellan, 2017). This research is relevant because it indicates that, similar to what has been demonstrated for other dark traits such as narcissism, general trait models such as the Five-Factor Model (FFM; McCrae & Costa, 1990) and the HEXACO Model (Ashton & Lee, 2007) provide a useful basis for understanding malevolent tendencies. For psychopathy in particular, meta-analytic research shows negative associations with Agreeableness and Conscientiousness. A more differentiated pattern of associations is observed for Extraversion and Neuroticism, as indicated by low warmth (E) and anxiety (N), but high excitement seeking, assertiveness (E), impulsiveness, and angry hostility (N) (Decuyper et al., 2009). Furthermore, consistent negative relationships have been observed

with the HEXACO Honesty-Humility dimension (e.g., De Vries et al., 2008; Gaughan et al., 2012; Lee & Ashton, 2005).

### **Successful Psychopathy: Three Conceptual Models**

Discussions of the potential adaptive nature of psychopathy outside I/O psychology have produced a lot of controversy, with some even contending that successful psychopathy is an oxymoron because psychopathy is inherently pathological (Kiehl & Lushing, 2014). As a result of this discussion, three potential models have been proposed for conceptualizing and explaining the concept of successful psychopathy (Hall & Benning, 2006; Lilienfeld et al., 2015): (1) the differential severity model, (2) the moderated-expression model, and (3) the differential configuration model. In what follows, we describe each of these conceptual models and detail their hypotheses with regard to the relationship between psychopathy and leadership effectiveness (see Table 1 for an overview).

**Differential severity model.** The differential-severity model proposes that successful psychopathy is a mild expression of clinical psychopathy (i.e., a “subclinical” version). In other words, whereas the core personality features are qualitatively the same as in clinical psychopathy, successful psychopaths are characterized by lower psychopathy scores than unsuccessful psychopaths. Although this model recognizes that psychopathy contains multiple features or characteristics, they are assumed to covary (i.e., successful psychopaths score lower *on all psychopathic features*), such that psychopathy should be treated as a unitary construct (Lilienfeld et al., 2015). Particularly, the differential severity model follows the broader reasoning that dark traits may –to a certain extent– be beneficial in a work context because they are associated with both weaknesses *and* strengths (Judge et al., 2009; Kaiser et al., 2015). From an IRT perspective, low threshold (easy) items will tend to be more adaptive (more positively related to effectiveness), whereas high threshold (difficult) items will tend to be more maladaptive (more negatively related to effectiveness; see Grijalva et al.,



2015). As a result, dark traits such as narcissism and Machiavellianism often show a curvilinear (i.e., inverted U-shaped) relationship with performance indicators (e.g., Grijalva et al., 2015; Zettler & Solga, 2013), such that a certain amount of these traits –but not too much– is beneficial in a work context.

For psychopathy in particular, Landay et al.'s (2019) findings support this model, as moderate psychopathy levels were found to be associated with the highest leadership effectiveness levels (including transformational leadership). The highest psychopathy scores, on the other hand, were associated with low effectiveness scores. Among the four effectiveness criteria we consider in the current study, such a curvilinear relationship might especially be expected for adaptive performance and charismatic leadership, as moderate levels of psychopathic traits promote stress-immunity and fearlessness (Benning et al., 2005; Lilienfeld & Widows, 2005), which may serve to deal appropriately with unexpected and stressful situations at work. Moreover, different psychopathic features, such as risk taking, persuasiveness, glibness, and (superficial) charm, have also been related to charismatic leadership (Conger et al., 1997; House & Howell, 1992). At high levels, however, these features may reflect reckless, manipulative, exploitative, and inauthentic behavior, which in turn is expected to reduce effectiveness levels (Banks et al., 2016; Kaiser et al., 2015; Landay et al., 2019). In sum, the differential severity model hypothesizes that a certain degree of psychopathic tendencies is desirable and associated with higher leadership effectiveness, particularly when operationalized as adaptive performance and charismatic leadership, whereas too much of this trait is assumed to cause harm (**Hypothesis 1**).

**Moderated-expression model.** A second model brings in moderators to explain the concept of successful psychopathy (e.g., Costello et al., 2018; Schütte et al., 2018; Steinert et al., 2017; Wall et al., 2013). According to the moderated-expression model, successful psychopaths display all of the psychopathic features that non-successful psychopaths do, but

the presence of moderators determines whether psychopathy has detrimental effects or not (Lilienfeld et al., 2015). These moderators can either serve as protective factors against negative outcomes (e.g., criminality) or as amplifiers of positive outcomes (e.g., performance).

One particular moderator that has been identified in psychopathy research is Conscientiousness (Mullins-Sweatt et al., 2010; Lilienfeld et al., 2015). Conscientiousness can be considered a key strength in human personality. Firstly, there is a considerable literature documenting the positive consequences of Conscientiousness for a variety of life outcomes (e.g., Ozer & Benet-Martinez, 2006), including outcomes in the context of work (Wilmot & Ones, 2019). Secondly, research points to Conscientiousness as a critical protective factor, mitigating the effects of other, potentially harmful factors both internal to the person (e.g., stress; Bartley & Roesch, 2011) as well as external to the individual (e.g., abusive supervision; Grant & Langan-Fox, 2007). One mechanism that has been put forward to explain the protective effects of Conscientiousness refers to how people deal with potentially stressful situations, or their coping strategies. More specifically, meta-analytic research has shown that higher Conscientiousness is associated with the use of a more instrumental, problem-focused style of coping, whereas lower Conscientiousness tends to relate to avoidant and negative-emotion focused forms of coping (Connor-Smith & Flachsbart, 2007). It is likely that a selection of more instrumental coping styles could also explain why Conscientiousness could mitigate the negative effects of psychopathy at work. This could be particularly true in contexts that are potentially stressful, such as leadership.

The potential key role of Conscientiousness is also in line with the findings of Mullins-Sweatt et al. (2010). In this study, experts in the field (e.g., attorneys, psychologists with legal expertise) were asked to describe psychopathic individuals *who were also successful* in their endeavor. Interestingly, the results showed convergence with traditional

personality descriptions of psychopathy (cf. Decuyper et al., 2009), except for the fact that successful psychopaths were characterized as scoring high on aspects of Conscientiousness such as competence, order, achievement striving, and self-discipline (Mullins-Sweatt et al., 2010). Conscientiousness might be particularly relevant for moderating the relationship between psychopathy and the three performance dimensions, as its positive influence on job performance –across different criteria– is well-documented (Barrick & Mount, 1991; Barrick et al., 2001). A positive influence on charismatic leadership, on the other hand, might be less obvious as Conscientiousness is generally unrelated to charismatic leadership (Bono & Judge, 2004). Therefore, the moderated-expression model hypothesizes that the relationship between psychopathy and leadership effectiveness (especially performance) is moderated by Conscientiousness, such that psychopathic traits are only related to increased effectiveness levels when Conscientiousness is high (**Hypothesis 2**).

**Differential configuration model.** Finally, the differential configuration model proposes that successful psychopathy is characterized by a different constellation of (psychopathic) traits compared to its less successful counterpart. As discussed earlier, most psychopathy researchers agree that psychopathy comprises a set of interpersonal, affective, and behavioral traits (e.g., Hall & Benning, 2006; Hare, 1991; LeBreton et al., 2006; Lilienfeld & Widows, 2005). What sets this model apart from the other two models is that here, the different subdimensions are not necessarily expected to covary, which allows for the possibility that people can score high on certain psychopathy dimensions while scoring low on others.

By explicitly distinguishing three subdimensions of psychopathy, the triarchic model of psychopathy (Patrick et al., 2009) is particularly helpful for studying the differential configuration model (Smith & Lilienfeld, 2013). The three core features of psychopathy that are represented in this taxonomy are disinhibition, boldness, and meanness. *Disinhibition*

refers to a predisposition towards deficits in impulse control (e.g., a lack of planfulness and foresight, failure to delay gratification), and is manifested in behaviors such as irresponsibility, untrustworthiness, impulsivity, and aggressiveness (Krueger et al., 2007; Patrick et al., 2009). *Boldness* refers to one's ability to remain calm in threatening situations. Typically, bold individuals recover quickly from stressful life events, are self-assured, persuasive, socially efficacious, fearless, and accepting of unfamiliar or dangerous situations (Patrick et al., 2009). Further, boldness is characterized by dominance, reduced stress reactivity, and interpersonal thrill seeking (Benning et al., 2005). Finally, *meanness* is marked by a lack of empathy, contempt towards others, and cruelty. Mean individuals are arrogant, defiant, and may verbally or physically abuse others.

Importantly, because the triarchic model posits that psychopathy is a configuration of conceptually and empirically distinguishable traits, it implies that studies on the relation between *global psychopathy* and performance may have obscured the differential relations between the psychopathy subcomponents and professional success or failure (e.g., Landay et al., 2019; O'Boyle et al., 2012). Consistent with the differential configuration model, the subdimensions of psychopathy have indeed been shown to display sharply different and at times even opposing relations with external criteria outside work (Miller & Lynam, 2012; Watts et al., 2017). Although the vast majority of studies on psychopathy in the work context only provides overall psychopathy scores (e.g., Boddy, 2014; Mathieu & Babiak, 2016; Landay et al., 2019), these differential patterns of relationships with external criteria have also been found in organizational settings (e.g., Neo et al., 2018; Schütte et al., 2018).

In Lilienfeld, Waldman, et al. (2012), psychopathic traits in U.S. presidents were related to both subjective as well as objective indicators of presidential performance. Interestingly, boldness was positively associated with both subjective and objective measures of presidential performance (e.g., initiating new projects), whereas disinhibition was only

related with objective indicators of weak performance (e.g., congressional impeachment resolutions). In a similar vein, Neo et al. (2018) demonstrated that boldness was related to adaptive workplace behaviors, including adaptive leadership (i.e., transformational and transactional leadership) and team play. In contrast, disinhibition related to passive leadership (i.e., laissez-faire and passive management-by-exception) and meanness related to unethical decision making and poor team play.

Taken together, the differential configuration model hypothesizes that the psychopathy dimensions are differentially related to leadership effectiveness (Hypothesis 3). With regard to boldness (**Hypothesis 3a**), one can expect that the ability to remain calm in stressful situations will increase leadership performance – especially *adaptive* performance, which generally refers to dealing with uncertain, unpredictable, or stressful situations at work (Pulakos et al., 2000). Further, while self-confidence allows leaders to convey that they are credible in their conviction that high-performance expectations can be achieved (Dóci & Hofmans, 2015; Judge & Bono, 2000), dominance, social efficacy, persuasiveness, and the tendency to display risk-taking behaviors all represent defining features of charismatic leadership (Conger et al., 1997). Therefore, a positive relationship is also expected between boldness and charismatic leadership (cf. Costello et al., 2018; Neo et al., 2018). With regard to disinhibition (**Hypothesis 3b**), on the other hand, not taking one's responsibilities and a lack of planfulness and foresight is expected to decrease performance levels –especially *task* performance, which refers to the quality of the work regarding one's job responsibilities (Renn & Fedor, 2001). And although risk-taking and unconventional behaviors are characteristic to charismatic leadership (Conger et al., 1997; LeBreton et al., 2006), the lack of trustworthiness, organization, and foresight might hinder the ability to build trust in others and to provide a strategic vision for the future that inspires other members of the organization. Considering the fact that disinhibition has previously been unrelated to adaptive

leadership, including transformational leadership (Neo et al., 2018), no specific relationship with regard to charismatic leadership is hypothesized. Finally, the meanness dimension (**Hypothesis 3c**), characterized by a lack of empathy and an antisocial attitude toward others, is expected to decrease leadership performance— especially *contextual* performance which typically includes components of interpersonal facilitation (e.g., helping coworkers without being asked; Van Scotter & Motowidlo, 1996). It can also be expected that meanness negatively relates to charismatic leadership as this leadership style usually contains aspects of individualized consideration or requires a certain sensitivity for the needs and feelings of others (Conger et al., 1997).

### **Research Objectives**

The current study aims to make three contributions to the literature on the role of psychopathy in leadership. First, the above literature review testifies that the study of psychopathy at work is lacking clarity and integration. Different approaches have been adopted, looking at linear or curvilinear effects (e.g., O’Boyle et al., 2012; Titze et al., 2017), studying psychopathy at the general trait level or investigating subdimensions (e.g., Landay et al., 2019; Neo et al., 2018), while others have even acknowledged the impact of moderators (e.g., Blickle et al., 2018; Costello et al., 2018). As a result, at this point it is unclear how the findings from existing studies concerning the effect of psychopathy on work outcomes, and leadership effectiveness, either support, complement or contradict each other. Therefore, as a first key contribution, we introduce and test an overarching framework for the study of psychopathy at work, comprising three alternative models of “successful psychopathy”. These models have been proposed in the psychopathy literature (Lilienfeld et al., 2015) and are translated into an applied context that is specifically relevant for the psychopathy construct, namely the leadership context. Although some models conceptually relate to principles that are known in applied psychology (e.g., the differential severity model

and the too-much-of-a-‘good’-thing logic, Pierce & Aguinis, 2013), formalizing and integrating the different perspectives will serve to create more order in this research area.

In addition, although the three alternative models have been put forward as separate conceptualizations, they are not necessarily mutually exclusive (Lilienfeld et al., 2015). In the current study, we also outline and test “hybrid models”, which are combinations of two (or even three) models. For instance, in the event that the different psychopathy dimensions show divergent relationships with leadership effectiveness indicators (cf. differential configuration model), it is still possible that moderate psychopathy levels on specific dimensions (e.g., boldness, disinhibition) are linked to the highest performance levels, while the highest psychopathy levels relate to ineffectiveness (cf. differential severity model). In addition, it is possible that these moderate psychopathy levels (e.g., boldness) only relate to increased effectiveness when the leader’s Conscientiousness is also high (cf. moderated-expression model). In short, it is possible that none of the three models fully explains the phenomenon of successful psychopathy in leaders, and that the truth lies somewhere in a mixture of these models. Therefore, a second key contribution of this study involves specifying and testing these hybrid models, which offers an even more detailed analysis of psychopathy-effectiveness associations. Note that, in contrast to the three ‘original’ conceptual models, testing the four hybrid models can be considered as *exploratory* research. Nevertheless, because the hybrid models represent combinations of the original conceptual models, a number of specific expectations can also be formulated regarding the nature of the relationship between psychopathic traits and leadership effectiveness (see Expectations 1 – 4 in Table 1). A summary of the three conceptual models and their hybrids is presented in Table 1, including each of its hypotheses with regard to the relationship between psychopathy and leadership effectiveness, its accompanying statistical tests, and its hypothesized results.

By providing this overview, this research may also pave the way for other studies that want to explore the effects of leader psychopathy in greater detail.

Finally, our analysis of psychopathy-effectiveness relations also provides a substantial empirical contribution to this literature by addressing two recurrent limitations of prior work. First, research in this area has often used short measures of psychopathy, such as the Dirty Dozen (e.g., Volmer et al., 2016), which only allow to assess this construct in a unidimensional manner. Similarly, other studies have relied heavily on workplace derailment scales, most notably the HDS Mischievous scale (e.g., 41/42 studies in Landay et al.'s (2019) meta-analysis on psychopathy and leadership effectiveness), which does not differentiate between multiple dimensions either. Second, among the few studies on corporate psychopathy, most face the problem of common-source bias. That is, subordinates provide both the psychopathy assessment *and* the leader behavior assessments (e.g., Mathieu et al., 2014), while only a small minority of studies uses a dyadic design, which requires the active participation of leaders themselves (Babiak et al., 2010; Blickle et al., 2018). The current paper presents two empirical studies that respond to these two shortcomings. In both studies, psychopathy is operationalized through a comprehensive multidimensional measure (i.e., the Psychopathic Personality Inventory-Revised (PPI-R) in Study 1 and the PPI-R-Short Form in Study 2). Further, both studies adopt a dyadic study design in which self-ratings of leader psychopathy are related to subordinate-ratings of leader effectiveness. Given the complexity of the models tested (see Table 1), and the difficulty of replicating interaction effects (including curvilinear effects) in field studies, the availability of an independent second sample also allows checking the replicability of our effects.

-----Insert Table 1 about here-----



## Study 1

### Method

#### Design and Participants

Psychology students were asked to recruit one target leader each (i.e., in the context of a course assignment), and were only responsible for delivering the informed consent. Leaders had to be at least 25 years old, have at least 3 years of working experience, and they had to be responsible for at least three subordinates. Each target leader nominated one subordinate willing and able to evaluate their direct supervising manager. The nominated subordinates were ensured that their ratings could not be seen by their leader. All research was conducted according to the ethical rules presented in the General Ethical Protocol of the Faculty of Psychology and Educational Sciences of Ghent University.

**Leaders.** Belgian business leaders ( $N = 204$ ) participated in this study, providing self-ratings on psychopathic traits and Big Five traits (57% male, average age = 45.96 years ( $SD = 8.62$ )). Among these leaders, 178 had complete subordinate ratings in terms of leadership effectiveness, resulting in a final sample of 178 leader-subordinate dyads. Fifty-seven percent of the leaders were men and the mean age was 46.15 years ( $SD = 8.50$ ). The majority of the leaders had completed higher education (89.3% had a bachelor's degree or higher) and they were employed in a broad range of industries, including manufacturing, technology, service, and government. The average tenure was 24.19 ( $SD = 8.41$ ) years, and leaders reported an average of 39 subordinates (min = 3; max = 750).

**Subordinates.** 178 subordinates evaluated their direct superior in terms of job performance and charismatic leadership. The mean age of the subordinates was 39.64 years ( $SD = 10.25$ ), and 39% were men. Subordinates indicated to be highly familiar with the targets' behavior at work ( $M = 4.08$ ,  $SD = .78$ ; on a 5-point Likert scale from 1 (*not familiar*)

to 5 (*very familiar*)) and they worked together with their respective leaders for on average 5.96 years ( $SD = 5.72$ ).

## Measures

**Psychopathic personality traits.** Leaders completed the Dutch version of the Psychopathic Personality Inventory-Revised (PPI-R; Uzieblo et al., 2010); a 154-item self-report measure assessing psychopathic traits in noncriminal samples using the core features of the triarchic model (Patrick et al., 2009). Seven of the eight subscales can be hierarchically structured under two large psychopathy factors (see Benning et al., 2003). Fearless dominance (PPI-I) covers the *boldness* component of the triarchic model, and includes the subscales stress immunity, social influence, and fearlessness (e.g., “*I can remain calm in situations that would make many other people panic*” and “*Even when others are upset with me, I can usually win them over with my charm*”). Self-centered impulsivity (PPI-II) covers *disinhibition*, and includes carefree nonplanfulness, rebellious nonconformity, blame externalization, and Machiavellian egocentricity (e.g., “*I don’t care about following the “rules”; I make up my own rules as I go along*”, and “*I sometimes lie just to see if I can get someone to believe me*”). Cold-heartedness does not load on either factor and is therefore often referred to as the third factor (PPI-III), covering the *meanness* component of the triarchic model (Benning et al., 2003; Smith & Lilienfeld, 2013) (e.g., “*When someone is hurt by something I say or do, that’s their problem*”). Items have to be answered using a 4-point Likert scale, with 1 = *false*, 2 = *mostly false*, 3 = *mostly true*, and 4 = *true*. Cronbach alpha coefficients were .88 for fearless dominance (FD), .87 for self-centered impulsivity (ScI), .77 for cold-heartedness (CH), and .88 for the complete PPI-R scale.

A general concern among researchers is that self-report measures may not be valid indicators of psychopathic traits due to the core features of psychopathy such as lying, deception, and manipulation. However, meta-analytic evidence shows a *negative* relationship

between self-reported psychopathy and social desirability/faking good (Ray et al., 2013). Moreover, subsequent research demonstrated that this inverse relation reflects true variance in psychopathic personality (i.e., low social desirability; tendency to violate social norms and conventions), and not a response bias (Verschuere et al., 2014). To some extent these findings temper the concerns of positive response bias and underscore the validity of self-report psychopathy scales including the PPI-R.

**Conscientiousness.** Leaders also completed the Dutch NEO Five-Factor Inventory (Hoekstra et al., 2007) to measure their standing on this Big Five trait (e.g., *“I have a clear set of goals and work toward them in an orderly fashion”*). The items were rated on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The alpha reliability of the Conscientiousness scale (12 items) was good ( $\alpha = .81$ ).

**Job performance.** Subordinates evaluated their leaders' job performance on a comprehensive taxonomy covering task-, contextual-, and adaptive performance (see Appendix for the full item set). Task performance (3 items) refers to the quality of work regarding one's job responsibilities (see Renn & Fedor, 2001), e.g., *“Sets high quality standards for work performance”* and *“Performs duties thoroughly and to perfection”*. Contextual performance (7 items) taps into the interpersonal facilitation dimension by Van Scotter and Motowidlo (1996), including cooperative acts that assist coworkers' performance (e.g., *“Helps someone without being asked”* and *“Supports or encourages a coworker with a personal problem”*). Finally, adaptive performance (9 items) refers to dealing appropriately with uncertain or unpredictable situations at work, handling work stress, and creative problem solving (see Pulakos et al., 2000). Sample items are *“Effectively adjusts plans, actions, or priorities to deal with changing situations”* and *“Develops innovative methods when a known solution is inadequate”*. Performance items were rated on a 5-point Likert scale ranging from 1 (*not characteristic*) to 5 (*very characteristic*). Reliabilities for the performance dimensions

were all satisfactory:  $\alpha = .86, .88$ , and  $.92$  for task-, contextual-, and adaptive performance respectively.

Confirmatory factor analysis was used to verify the empirical distinctiveness of these three performance domains. Because  $F$ -tests have been shown to be superior to  $\chi^2$  tests in controlling the Type I error rate of model fit statistics (McNeish, 2020), we relied on  $F$ -tests to evaluate model fit, alongside more traditional fit indices such as the Comparative Fit Index (CFI), the Tucker–Lewis Index (TLI), and the Root Mean Square of Error of Approximation (RMSEA). For CFI and TLI a value  $\geq .90$  suggests an adequate model fit, while RMSEA values  $\leq .10$  point to an acceptable fit, values  $\leq .08$  point to an approximate fit, and values  $\leq .05$  suggest a good model fit (Chen et al., 2008). Finally, we also checked the Standardized Root Mean Square Residual (SRMR), for which values of  $\leq .08$  refer to a good model fit (Hu & Bentler, 1999). Although the fit indices for the 3-factor model of performance were acceptable ( $CFI = .934$ ;  $TLI = .925$ ;  $RMSEA = .063$ ;  $SRMR = .056$ ), the  $F$ -test revealed statistically significant model-data misfit ( $F(149,177) = 1.696$ ;  $p < .001$ ). To understand the reasons for misfit, we inspected the modification indices. These indices revealed that model misfit was mainly due to unmodeled residual correlations between items that share properties that are not captured by the latent factor. For example, residual correlations were suggested between item 4 and 9 (both measuring contextual performance but also pertaining to positive interpersonal behavior; see Appendix for the full item set), between item 5 and 10 (both measuring contextual performance but also pertaining to supporting behavior), between item 11 and 13, and between 12 and 13 (all measuring adaptive performance but also pertaining to creative problem solving), and finally between item 18 and 19 (both measuring adaptive performance but also pertaining to responding appropriately in stressful situations). Including these residual correlations improved model fit substantially ( $CFI = .974$ ;  $TLI = .969$ ;  $RMSEA = .040$ ;  $SRMR = .052$ ), resulting in a non-significant  $F$ -test ( $F(144,177) = 1.283$ ;  $p = .057$ ).

Because of this reason, and because Exploratory Structural Equation Model (ESEM) analyses revealed no important cross-loadings in our model, we proceeded with the 3-factor model.

**Charismatic leadership.** Subordinates rated their respective leaders using a Dutch version of the 20-item Conger-Kanungo Scale (CKS; Conger et al., 1997; Vergauwe et al., 2018). The CKS taps into charismatic leader behavior, including the leader's strategic vision and articulation, personal risk, sensitivity to the environment and to others' needs, and unconventional leader behavior. Items such as "*Has vision; often brings up ideas about possibilities for the future*" were rated on a 5-point response format ranging from 1 (*not characteristic*) to 5 (*very characteristic*). The alpha reliability for charismatic leadership was satisfactory ( $\alpha = .92$ ). In support of the convergent validity of this measure, CKS charismatic leadership has been reported to show a strong correlation with transformational leadership as measured by the Multifactor Leadership Questionnaire (Rowold & Heinitz, 2007).

## Analyses

To increase interpretability (and comparability with Study 2, which uses the PPI-R-*Short Form* to measure psychopathic traits), we calculated mean scale scores for all variables and used those in the analyses. Descriptive statistics, correlations, and Cronbach's alphas of the Study 1 variables are reported in Table 2.

In the current study, three performance dimensions and charismatic leadership were selected as relevant indicators of leadership effectiveness. As a result, four regression analyses were conducted to test each of the alternative conceptual models. More details with regard to the specific type of regression analyses that were conducted to test each of the models can be found in the respective results-sections below.

Before going into detail in this regard, two general features of our analytical strategy deserve some clarification. First, it is important to emphasize that support for one or the other conceptual model cannot be evaluated based on the (non)significance of individual

relationships. What matters instead are *patterns of relationships* with external criteria. Therefore, we considered it important that the alternative models were tested on a range of outcome variables, rather than a single one. Second, it is relevant to emphasize that the different models are presented as *alternative* models, and not so much *competing* models. Although patterns of relationships with different criteria will help us to evaluate the relevance of each of these alternative models, a direct competition between these models is not warranted. Indeed, the different models may potentially co-exist, which is explicitly acknowledged through the notion of hybrid models. Moreover, it can be expected that models based on multiplicative terms will have a lower chance of “winning the competition” as compared to direct effect models (e.g., Aguinis & Gottfredson, 2010). By considering these models as alternative, our focus lies on evaluating the merits of each model separately.

-----Insert Table 2 about here-----

## Results

### The Differential Severity Model

To examine the differential severity model (Hypothesis 1), we tested curvilinear relationships between the PPI-R score and the different effectiveness indicators. Such a quadratic regression serves as a direct test of the idea that leaders with moderate psychopathy scores (PPI-R) will be more successful (i.e., perform better) compared to leaders with low or high levels of psychopathy. Prior to the regression analyses, we centered the global psychopathy scores and then computed the squared term based on the centered scores. For each of the four criteria, the global psychopathy score was entered in a first step (i.e., the linear term), followed by the squared term for psychopathy in a second step. The different indicators of leadership effectiveness served as the dependent variables.

Results in Table 3 (Model 1) show that no significant *quadratic* relationships were found between global psychopathy (PPI-R) and the criteria. In disagreement with the

differential severity model, several *linear* relationships were observed between global psychopathy and the success criteria, with some of those relationships approaching conventional levels of significance ( $p < .10$ ). In particular, psychopathic traits were negatively related to task performance ( $b = -.52, p = .081$ ), such that higher psychopathy scores were associated with decreasing quality of work. On the other hand, a positive linear trend was found between psychopathic traits and adaptive performance ( $b = .44, p = .098$ ) and charismatic leadership ( $b = .59, p = .025$ ).

-----Insert Table 3 about here-----

### **The Moderated Expression Model**

To examine the moderated expression model (Hypothesis 2), we tested the existence of an interaction effect between Conscientiousness and global psychopathy in the prediction of the different criteria. This analysis directly tests the idea that moderators—in this case Conscientiousness— affect the relationship between psychopathy and external criteria in the sense that high levels of Conscientiousness allow leaders with high levels of psychopathic traits to still be effective. For each of the four moderation analyses, the centered independent variable (i.e., PPI-R) and moderator variable (i.e., Conscientiousness or “C”) were entered in the first step of a hierarchical regression, followed by the interaction term of the centered independent variable and moderator (i.e., C×PPI-R) in the second step. As can be seen in Table 3 (Model 2), and in disagreement with the moderated expression model, no interaction effects were found between the global psychopathy score and Conscientiousness ( $b = .15, .19, -.01$ , and  $-.42$  for the interaction terms (C×Psychopathy) for task-, contextual-, adaptive performance, and charismatic leadership respectively,  $p > .10$ ).

### **The Differential Configuration Model**

To test the differential configuration model (Hypothesis 3), we conducted analyses on the level of the different psychopathy subdimensions. Testing whether the individual

subdimensions relate differently to leader effectiveness serves as a test of this model, as successful psychopaths might score high on some psychopathy dimensions while scoring low on others. To examine the unique contribution of each of the different psychopathy dimensions, we controlled for variance explained by other dimensions by including all three subdimensions in the same regression model.

As can be seen in Table 3 (Model 3), only positive relationships were observed between fearless dominance (i.e., “FD” or *boldness*) and effectiveness (Hypothesis 3a). Consistent with the expectations resulting from the differential configuration model, positive linear relations were found with adaptive performance ( $b = .40, p = .010$ ) and with charismatic leadership ( $b = .58, p < .001$ ). For self-centered impulsivity (i.e., “ScI” or *disinhibition*), on the other hand, a negative relationship was observed with task performance ( $b = -.57, p = .020$ ), such that higher scores on self-centered impulsivity were associated with lower task performance levels (Hypothesis 3b). For cold-heartedness (i.e., “CH” or *meanness*), finally, only negative relationships were found with leadership effectiveness (Hypothesis 3c). Leaders scoring higher on cold-heartedness were inclined to score lower on contextual performance ( $b = -.33, p = .034$ ) and charismatic leadership ( $b = -.42, p = .003$ ).

### Hybrid Models

**Hybrid model 1: Differential severity + Moderated-expression.** We examined a moderated-expression differential severity model (cf. Expectation 1 in Table 1) by testing the moderating effect of Conscientiousness on the curvilinear relationship between the global psychopathy score and the effectiveness outcomes (i.e., quadratic interaction effects). Such a hybrid model would hold when psychopathic traits (PPI-R) would relate in an inverse U-shaped way to effectiveness, but only when Conscientiousness is high. For each dependent variable, the centered psychopathy score (i.e., PPI-R) and moderator variable (i.e., C) were entered (Step 1) followed by the squared term of psychopathy (Step 2). In a third and final



step, the interaction terms between Conscientiousness and psychopathy (e.g., C×Psychopathy) and between Conscientiousness and the quadratic term of psychopathy (e.g., C×Psychopathy<sup>2</sup>) were entered. The results show no evidence for the presence of interaction effects for the three performance dimensions, nor for charismatic leadership ( $b = .41, .20, .14$ , and  $-.25$  for the linear interaction terms (C×Psychopathy);  $b = -3.83, 1.62, 1.61$ , and  $1.42$  for the quadratic interaction terms (C×Psychopathy<sup>2</sup>) for task-, contextual-, adaptive performance, and charismatic leadership respectively,  $p > .10$ ).

**Hybrid model 2: Differential severity + Differential configuration.** A hybrid model of the differential severity and differential configuration model (cf. Expectation 2 in Table 1) was tested by inspecting curvilinear relationships for each of the psychopathy subdimensions. The hybrid model would hold when only for some dimensions of psychopathy the relationship with effectiveness would be described through an inversed U-shaped relationship (e.g., for boldness, disinhibition), while not necessarily for others (e.g., for meanness). For instance, although boldness has been positively related to charismatic leadership (Costello et al., 2018; Neo et al., 2018), too much boldness, including exploitative behaviors, could potentially decrease charismatic leadership. Similarly, although disinhibition was found to be unrelated to adaptive (including transformational) leadership in Neo et al. (2018), some aspects of disinhibition, including risk-taking and unconventional behaviors, could potentially promote charismatic leadership to a certain degree (e.g., Conger et al., 1997; LeBreton et al., 2006). To test these possibilities, the psychopathy subdimension was entered in the hierarchical regression (Step 1) followed by the squared term for the psychopathy subdimension (Step 2) for each of the four criteria.

Although some linear relationships were found for the psychopathy dimensions in relation to leadership effectiveness (e.g., FD with adaptive performance/charismatic leadership (+); ScI with task performance (-); CH with contextual performance/charismatic

leadership (-), see also Table 3: Model 3), no quadratic relationships were found for fearless dominance and self-centered impulsivity ( $b$ 's for  $FD^2 = .24, -.06, .03$ , and  $-.02$ ;  $b$ 's for  $ScI^2 = .13, -.14, -.15$ , and  $-.13$  for task-, contextual-, adaptive performance, and charismatic leadership respectively,  $p > .10$ ). Only one quadratic trend was found at  $p = .084$ , i.e., between cold-heartedness and task performance ( $b = .49$  for  $CH^2$ ). However, in disagreement with the differential severity model, this is a U-shaped relationship, indicating that moderate levels of cold-heartedness are associated with the lowest –instead of the highest– performance levels.

**Hybrid model 3: Moderated expression + Differential configuration.** Hybrid model 3 (cf. Expectation 3 in Table 1) was examined by testing the moderating effect of Conscientiousness on the relationships between each of the psychopathy subdimensions and the effectiveness outcomes. This hybrid model would hold when Conscientiousness would buffer the hypothesized negative effects (e.g., disinhibition and task performance), whereas it would strengthen the hypothesized positive relationships (e.g., boldness and adaptive performance). Similar to the analyses for the moderated expression model, the centered independent variable (e.g.,  $FD$ ) and moderator variable (i.e.,  $C$ ) were entered (Step 1), followed by the interaction term of the centered independent variable and the moderator (e.g.,  $C \times FD$ ) (Step 2). The results do not support the idea that Conscientiousness moderated the relationship between the different psychopathy factors and leadership success ( $b$ 's for  $C \times FD = -.30, -.04, -.26$ , and  $-.35$ ;  $b$ 's for  $C \times ScI = .50, .17, .33$ , and  $.11$ ;  $b$ 's for  $C \times CH = -.03, .17, -.05$ , and  $.07$  for task-, contextual-, adaptive performance, and charismatic leadership respectively,  $p > .10$ ).

**Hybrid model 4: Differential severity + Moderated-expression + Differential configuration.** A hybrid model of the three models (cf. Expectation 4 in Table 1) was examined by testing interaction effects of Conscientiousness on the curvilinear relationships

between each of the psychopathy subdimensions and the effectiveness indicators. Similar to the analyses for the first hybrid model, the centered psychopathy dimension (e.g., FD) and Conscientiousness were entered in the first step, followed by the squared term of the psychopathy dimension (e.g.,  $FD^2$ ) in a second step. In a third and final step, the interaction terms between Conscientiousness and the psychopathy dimension (e.g.,  $C \times FD$ ) and between Conscientiousness and the quadratic term of the psychopathy dimension (e.g.,  $C \times FD^2$ ) were entered. In Table 4, the quadratic moderation analyses are presented for each of the three psychopathy dimensions in relation to the four effectiveness criteria. Only one interaction effect was found at  $p = .083$  ( $b = 1.18$  for  $C \times ScI$  in task performance).

-----Insert Table 4 about here-----

Figure 1 shows the moderating effect of Conscientiousness on the (quadratic) relationship between self-centered impulsivity and task performance ( $b = 1.18$ ,  $p = .083$  for  $C \times ScI$ ). Whereas a negative flattening curve can be observed for leaders low on Conscientiousness, an exponential positive curve can be observed for leaders high on Conscientiousness. In other words, the negative relationship between self-centered impulsivity and task performance –that was found in support of the differential configuration model (cf. Table 3: Model 3)– only seems to hold for leaders who are *low* on Conscientiousness. For leaders high on Conscientiousness, the ones with high self-centered impulsivity scores even outperform the ones with low scores on self-centered impulsivity. Again, the quadratic relationship does not take the form of an inverted U-shape, as hypothesized by the differential severity model. In contrast, the highest performance levels were observed for the highest psychopathy levels in combination with high levels of Conscientiousness.

-----Insert Figure 1 about here-----

## Discussion

Using a sample of 178 leader-subordinate dyads, the goal of this study was to formalize and test three conceptualizations of successful psychopathy, as well as to explore hybrid models, which are blends of these three basic models. When looking at the patterns of results, it can be concluded that the differential configuration model received most empirical support. For the other models (including the hybrids), consistent patterns of relationships with external (subordinate-rated) criteria could not be found. In fact, only one interaction effect was found (at  $p = .083$ ) when testing the hybrid of all three models (for C×ScI on task performance). Yet, this interaction effect aligns more with the expectations of the third hybrid model (moderated expression + differential configuration), as the observed nonlinearity did not show an inverted U-shape. In addition to the support for the differential configuration model, we therefore conclude to have found *weak* support for Hybrid 3 (see overview in Table 1).

As noted earlier, our finding that the differential configuration model received most empirical support might also be explained by the fact that this is the only model relying on direct effects, whereas the other models (and their hybrids) incorporate multiplicative effects which are more difficult to detect in general. Indeed, post-hoc power analyses (Faul et al., 2009) indicated that most of the analyses we performed in this study lacked statistical power. More specifically, for the most complex models (i.e., quadratic interactions; testing Hybrid 1 and 4), a sample size of 178 resulted in an acceptable power level of .80 for medium sized effects,  $R^2 = .07$  ( $R^2 = .06$ ) for an  $\alpha$  level of .05 ( $\alpha = .10$ ). However, for small effects ( $R^2 = .03$ ), statistical power dropped to 39% (52%) for an  $\alpha$  of .05 (.10). Provided that effect sizes for multiplicative effects tend to be smaller than effect sizes for the main effects, statistical power should be acceptable for small effects as well. To achieve 80% power (with an  $\alpha = .05$ ) to detect a small effect size of 2% variance explained, the most complex (quadratic

interaction) models would require a minimum sample of  $N = 635$ . In order to examine the replicability of the results in this study, a second study was conducted testing the same models but using a substantially larger sample of leader-subordinate dyads that better meets these power demands.

## **Study 2**

### **Method**

#### **Design and Participants**

Similar to Study 1, psychology students were asked to recruit one target leader in the context of a course assignment. Leaders had to be at least 25 years old, have at least 3 years of working experience, and they had to be responsible for at least three subordinates. Students were only responsible for delivering an email address of a leader that met the inclusion criteria. Leaders were contacted by email and could voluntarily participate in this study. Before the leaders provided self-ratings on psychopathic traits and Conscientiousness, they had to provide the e-mail address of one subordinate willing and able to rate their work behavior. At their turn, the nominated subordinates were contacted by email to voluntarily participate via a unique code (linked to their supervisor). As in Study 1, the subordinates were ensured that their ratings could not be seen by their leader. As an incentive, both the leader as well as the subordinate had a 25 % chance of winning a shopping voucher. All research was conducted according to the ethical rules presented in the General Ethical Protocol of the Faculty of Psychology and Educational Sciences of Ghent University.

**Leaders.** A sample of 785 Belgian business leaders participated voluntarily in this study (57% men, average age = 47.89 years ( $SD = 8.04$ )). For 668 of these leaders, we also received complete subordinate ratings in terms of leadership effectiveness, resulting in a final sample of 668 leader-subordinate dyads for this study. Although substantially larger, this sample is highly comparable to the Study 1 sample. Fifty-six percent of the leaders were men

and the mean age was 48.20 years ( $SD = 7.73$ ). The sample was highly educated (i.e., the highest obtained degree was a secondary school degree (15%), a bachelor's degree (38%), a master's degree (38%), and multiple master's degrees or a PhD (9%)), and heterogeneous in terms of industries (e.g., retail, IT, food, education, government). The average tenure was 24.98 ( $SD = 7.95$ ) years, and they had on average 42 subordinates (min = 3; max = 3700).

**Subordinates.** Subordinates were on average 41.69 years old ( $SD = 10.76$ ), and 57% were men. Again, subordinates indicated to be highly familiar with the targets' behavior at work ( $M = 4.20$ ,  $SD = .71$ ; on a 5-point Likert scale from 1 (*not familiar*) to 5 (*very familiar*)) and they worked together with their respective leaders for on average 6.42 years ( $SD = 6.03$ ).

## Measures

**Conscientiousness, job performance, and charismatic leadership.** Except for psychopathic traits, the same scales were used as in Study 1. Cronbach's alphas were all satisfactory ( $\alpha = .81$  and  $.83$  for Conscientiousness and charismatic leadership respectively, and  $\alpha = .84$ ,  $.86$ , and  $.86$  for task-, contextual- and adaptive performance respectively). Similar to Study 1, the results of a CFA of the 3-factor performance model resulted in satisfactory fit indices ( $CFI = .916$ ;  $TLI = .903$ ;  $RMSEA = .059$ ;  $SRMR = .050$ ), although the  $F$ -test indicated statistically significant model-data misfit ( $F(149,657) = 3.311$ ;  $p < .001$ ). Inspection of the modification indices revealed that model misfit was again due to unmodeled residual correlations, with the highest modification indices being the same as in Study 1 (i.e., between item 5 and 10 [both measuring contextual performance but also pertaining to supporting behavior], between item 11 and 13 [both measuring adaptive performance but also pertaining to creative problem solving], and between 18 and 19 [both measuring adaptive performance but also pertaining to responding appropriately to stressful situations])). Including those error covariances improved model fit substantially ( $CFI = .946$ ;  $TLI = .937$ ;  $RMSEA = .048$ ;  $SRMR = .045$ ), although the  $F$ -test was still statistically significant

( $F(146,657) = 2.513; p < .001$ ). Because of this reason, we also performed an ESEM analysis, which revealed no major cross-loadings. Hence, we again proceeded with the 3-factor model.

**Psychopathic personality traits.** Leaders completed the Dutch validated version of the PPI-R-Short Form (PPI-R-SF; Uzieblo et al., 2010); a 56-item version of the PPI-R that also captures the three psychopathy factors and its subscales. The PPI-R-SF was developed from its parent measure, by selecting the seven PPI-R items from each of the eight subscales that exhibited the highest factor loadings. As in Study 1, items were scored using a 4-point Likert scale, with 1 = *false*, 2 = *mostly false*, 3 = *mostly true*, and 4 = *true*. Cronbach alphas were .83 for the global psychopathy scale, and .82 for fearless dominance, .80 for self-centered impulsivity, and .74 for cold-heartedness.

### Analyses

Similar to Study 1, mean scores were calculated for all study variables prior to the analyses, allowing for the comparison of psychopathy- and effectiveness levels both within and between study samples. All descriptive statistics, correlations, and Cronbach's alphas of the Study 2 variables are reported in Table 5.

In an earlier version of this manuscript, we reported on the exact same regression-based techniques as in Study 1. However, one of the reviewers correctly indicated that collapsing items into scales and using those scales in regression analyses does not eliminate measurement error (e.g., Hill et al., 2021). Because our Study 2 sample size allows using techniques that take into account this issue, we tested the three conceptual models and their hybrids using Structural Equation Modeling (SEM; Bollen, 1989) in Mplus 8.4 (Muthén & Muthén, 1998-2017). In those models, the criteria are regressed on the predictors in the same way as in Study 1, with the important difference that this is done using latent rather than observed variables. The observed scale scores were used as indicators of the latent variables, constraining the error variances to  $[(1 - \text{reliability}) * \text{observed variance}]$ . Latent variable

interactions (i.e., squared terms, interactions, and quadratic interactions) were created using the XWITH command in Mplus, which requires the use of numerical integration.

-----Insert Table 5 about here-----

## Results

### The Differential Severity Model

To examine the differential severity model (Hypothesis 1), we tested curvilinear relationships between the global psychopathy score (PPI-R-SF) and the different criteria. Results in Table 6 (Model 1) show that no significant quadratic relationships were found between global psychopathy and the effectiveness criteria ( $b = .06, -.03, -.07$ , and  $.10$  for the quadratic terms (Psychopathy<sup>2</sup>) for task-, contextual-, adaptive performance, and charismatic leadership respectively,  $p > .05$ ). Consistent with Study 1, a negative linear relationship was found between psychopathic traits and task performance ( $b = -.57, p < .001$ ), while positive linear relationships were found with adaptive performance ( $b = .20, p = .018$ ) and charismatic leadership ( $b = .19, p = .017$ ).

-----Insert Table 6 about here-----

### The Moderated Expression Model

To examine the moderated expression model (Hypothesis 2), we tested the interaction effect between Conscientiousness and the global psychopathy score (PPI-R-SF) in the prediction of the different criteria. Consistent with Study 1, and in disagreement with the moderated expression model, Table 6 (Model 2) shows no interaction effects between global psychopathy and Conscientiousness ( $b = -.23, .11, .18$ , and  $.12$  for the interaction terms (C×Psychopathy) for task-, contextual-, adaptive performance, and charismatic leadership respectively,  $p > .05$ ).



### The Differential Configuration Model

To test the differential configuration model (Hypothesis 3), we conducted analyses on the level of the different psychopathy subdimensions. As can be seen in Table 6 (Model 3), both positive and negative relationships were observed between fearless dominance (i.e., “FD” or *boldness*) and effectiveness (Hypothesis 3a). Consistent with the expectations, a positive linear relationship was found with adaptive performance ( $b = .15, p = .011$ ). In contrast to the expectations, however, no significant relationship was found with charismatic leadership ( $b = .05, p = .411$ ), and a negative association was found with task performance ( $b = -.31, p < .001$ ). Further, although a negative correlation was found between self-centered impulsivity (i.e., “ScI” or *disinhibition*) and task performance ( $r = -.09, p = .020$ ), this relationship disappeared when controlling for the variance explained by the other psychopathy dimensions ( $b = -.16, p = .131$ ). Therefore, the negative relationship with task performance (Hypothesis 3b) that was found in Study 1, was not replicated in Study 2. Moreover, a positive association was found between self-centered impulsivity and charismatic leadership ( $b = .21, p = .001$ ). Finally, consistent with Study 1, only negative relationships were found between cold-heartedness (i.e., “CH” or *meanness*) and leadership effectiveness (Hypothesis 3c). Leaders scoring higher on cold-heartedness received lower ratings on contextual performance ( $b = -.20, p = .003$ ). Similar to Study 1, cold-hearted leaders were inclined to score lower on charismatic leadership ( $b = -.09, p = .070$ ), although this relationship approached conventional significance levels in Study 2.

### Hybrid Models

**Hybrid model 1: Differential severity + Moderated-expression.** Hybrid model 1 (cf. Expectation 1 in Table 1) was examined by testing the moderating effect of Conscientiousness on the curvilinear relationship between global psychopathy (PPI-R-SF) and the effectiveness outcomes (i.e., quadratic interaction effects). As in Study 1, the results

showed no evidence for the presence of interaction effects for the three performance dimensions, nor for charismatic leadership ( $b = -.29, .12, .17$ , and  $.19$  for the linear interaction terms ( $C \times \text{Psychopathy}$ ); and  $b = .82, .38, .16$ , and  $.18$  for the quadratic interaction terms ( $C \times \text{Psychopathy}^2$ ) for task-, contextual-, adaptive performance, and charismatic leadership respectively,  $p > .05$ ).

**Hybrid model 2: Differential severity + Differential configuration.** A hybrid model of the differential severity and differential configuration model (cf. Expectation 2 in Table 1) was examined by testing curvilinear relationships for each of the psychopathy subdimensions. Although some linear relationships were found (e.g., FD positively with adaptive performance, see also Table 6: Model 3), no quadratic relationships were found for neither of the psychopathy subdimensions ( $b$ 's for  $FD^2 = -.01, -.07, .06$ , and  $-.02$ ;  $b$ 's for  $ScI^2 = -.14, -.05, -.20$ , and  $-.05$ ;  $b$ 's for  $CH^2 = .03, -.04, -.02$ , and  $.04$  for task-, contextual-, adaptive performance, and charismatic leadership respectively,  $p > .05$ ).

**Hybrid model 3: Moderated expression + Differential configuration.** Hybrid model 3 (cf. Expectation 3 in Table 1) was examined by testing the moderating effect of Conscientiousness on the relationships between each of the psychopathy subdimensions and the criteria. In contrast to Study 1, in which no significant effects were found, Conscientiousness moderated the relationship between cold-heartedness and both contextual performance ( $b$  for  $C \times CH = -.40$ ,  $p = .032$ ) and charismatic leadership ( $b$  for  $C \times CH = -.25$ ,  $p = .043$ ). In contrast to the expectations, however, Figure 2 illustrates that the negative relationship between cold-heartedness and effectiveness can only be observed for leaders scoring high on Conscientiousness. In other words, the negative relationship between cold-heartedness and both contextual performance and charismatic leadership—that were found in support of the differential configuration model (cf. Table 6: Model 3)—only seem to hold for leaders who are *high* on Conscientiousness. No interactions were observed with the other

psychopathy dimensions ( $b$ 's for  $C \times FD = .11, .11, .15$ , and  $.23$ ;  $b$ 's for  $C \times ScI = -.28, .26, .10$ , and  $.09$  for task-, contextual-, adaptive performance, and charismatic leadership respectively,  $p > .05$ ).

-----Insert Figure 2 about here-----

**Hybrid model 4: Differential severity + Moderated-expression + Differential configuration.** A hybrid model of the three models (cf. Expectation 4 in Table 1) was examined by testing interaction effects of Conscientiousness on the curvilinear relationships between each of the psychopathy subdimensions and the effectiveness indicators. In Table 7, the quadratic moderation analyses are presented for each of the three psychopathy subdimensions in relation to the four criteria. Again, the interaction effects between cold-heartedness and Conscientiousness for both contextual performance ( $b = -.41, p = .019$  for  $C \times CH$ ) and charismatic leadership ( $b = -.27, p = .032$  for  $C \times CH$ ) emerged as statistically significant. Figure 3 shows that although a negative curve can be observed for leaders high on Conscientiousness, actually neither of the curves take the form of an inverted U, as expected by the differential severity model. No significant interactions were found between the other psychopathy dimensions and Conscientiousness.

-----Insert Table 7 about here-----

-----Insert Figure 3 about here-----

## Discussion

Study 2 aimed to replicate the results from Study 1, using a substantially larger (but otherwise comparable) sample of leader-subordinate dyads. The major advantage of including this second sample consists of re-examining our complex models in an independent sample with sufficient power to detect even small effects.

When focusing on finding coherent patterns of relationships with the criteria, Study 2 again provided empirical support for the differential configuration model. Although some of

the hypothesized relationships were not observed (e.g., positive association between boldness and charismatic leadership) and other unexpected relationships emerged (e.g., negative association between boldness and task performance), the results are generally speaking in line with the basic assumption of the model. Particularly, the subdimensions of psychopathy have shown to display sharply different and at times even opposing relations with the effectiveness criteria. As in Study 1, some evidence was also found for the third hybrid model (moderated expression + differential configuration). Although the interactions between Conscientiousness and cold-heartedness (for both contextual performance and charismatic leadership) were not in the expected direction, the results are in line with the model's core idea that the presence of moderators determines whether specific subdimensions of psychopathy have detrimental effects or not. These effects were further replicated when testing the hybrid of all three models, although the observed nonlinearities in these interactions were again not inversely U-shaped. As such, our findings align more with the third hybrid model, compared to the fourth hybrid, which combines all three conceptual models. The other models received no empirical support in Study 2.

### **General Discussion**

Although the topic of corporate psychopathy in relation to leadership effectiveness has gained increasing scholarly attention over the past years (e.g., Landay et al., 2019; LeBreton et al., 2018; Spain et al., 2014), empirical work on this topic that uses detailed, state-of-the-art psychopathy measures and that is not plagued by common-source bias is still relatively scarce. Indeed, the difficulty of motivating leaders and—preferable—their coworkers to participate in research on this type of topic has been noted before (e.g., Mathieu & Babiak, 2016). Moreover, and perhaps more importantly, the use of very distinct conceptual models and varying empirical approaches in this literature seem to have hindered cumulative growth of knowledge about corporate psychopathy (Smith & Lilienfeld, 2013),

and how it relates to leadership effectiveness. To advance this field of research, we introduced an overarching framework of successful psychopathy (Lilienfeld et al., 2015) to the leadership domain, comprising three alternative conceptual models and their hybrid forms. Studying psychopathy in leaders from this perspective allows integrating much of the work that has previously been done in the organizational sciences, while it also stimulates further (more detailed) avenues for research. Apart from proposing the conceptual framework, we tested the different elements in this framework empirically using two independent samples of leader-subordinate dyads. Below we discuss how our findings contribute to our understanding of psychopathy in leadership contexts.

### **Theoretical Implications**

By introducing the framework of successful psychopathy (Lilienfeld et al., 2015) to the leadership domain, along with its three sub-models and the associated hybrids, the present paper makes three important theoretical contributions. These contributions pertain to: (1) the functional form of the relationship between psychopathy and leadership effectiveness, (2) boundary conditions of this relationship, and (3) the monolithic versus multifaceted nature of the psychopathy construct.

**Functional form of the psychopathy – leadership effectiveness relationship.** Our first contribution concerns the nature of the psychopathy - leadership effectiveness relationship, and more specifically whether it is linear or curvilinear. Despite the appeal of the differential severity model's idea that moderate levels of psychopathy could be associated with the highest effectiveness levels, and in contrast to Landay et al.'s (2019) meta-analytic findings, the relationships observed in both our studies did *not* take the form of an inverted U-shape. In contrast, our findings suggest that the psychopathy - leadership effectiveness relationship is primarily linear in nature. Of course, the large majority of the studies included in Landay et al. (2019) was based on supervisor ratings of leadership effectiveness, whereas

the current study relied on subordinate ratings. This is an important difference, given that Landay et al. (2019) further demonstrated that the psychopathy - leader effectiveness relationship was influenced by the measurement source. Indeed, different rater groups (e.g., supervisors, subordinates) could have different perspectives as to which leaders are effective, as these groups might each focus on different performance facets (Hogan & Kaiser, 2005). For instance, whereas supervisors might be particularly focused on the productivity (output) of a leader's unit, subordinates might alternatively put greater emphasis on the quality of interpersonal treatment when rating a leader's effectiveness. In addition, Landay et al. (2019) almost exclusively relied on the HDS Mischievous scale as a measure of psychopathy. Similar to the HDS Mischievous scale, the PPI-R –and its short form– was designed to assess subclinical psychopathy levels in noncriminal samples (Hogan & Hogan, 2009; Uzieblo et al., 2010). However, at face value, it seems that the PPI-R items tap higher extremity (i.e., higher item-difficulty from an IRT perspective) compared to the HDS items. In case important differences exist, range restrictions in PPI-R scores are more likely, which would further complicate the detection of curvilinear relationships (see Figure 1 in Pierce & Aguinis, 2013). This and other hampering factors for detecting these effects are more elaborately discussed in the limitation section below.

When focusing at the linear relationships that were found in this study, divergent associations were found between psychopathy and the different effectiveness criteria. More specifically, both Study 1 and 2 showed that global psychopathy was *negatively* related to task performance, while it was *positively* related to adaptive performance and charismatic leadership. Interestingly, while the overall psychopathy trait score related positively to charismatic leadership, a more fine-grained analysis at the level of the psychopathy subdimensions revealed a positive association with boldness (in Study 1) and disinhibition (in Study 2), and a negative relationship with meanness. The sublevel-analyses in both studies

further showed that the positive relationship between global psychopathy and adaptive performance was solely driven by the boldness dimension. The negative relationship between global psychopathy and task performance could be explained by disinhibition (in Study 1) or by boldness (in Study 2). This divergent pattern of relationships with effectiveness is, of course, obscured when only a global psychopathy score is used, as is the case in most research on psychopathy in organizational contexts (e.g., Landay et al., 2019; O’Boyle et al., 2012).

**The moderating role of Conscientiousness.** As a second contribution, our framework also presented models that explicitly recognize the role of moderating variables. In the present study, weak to modest evidence was found for a potential moderating role of Conscientiousness in the relationship between psychopathic traits and leadership effectiveness. Although no interaction effects were observed when investigating the original moderated-expression model (cf. Tables 3 and 6: Model 2), the potential buffering role of Conscientiousness emerged when testing quadratic interaction effects for the hybrid of all three models in Study 1 (cf. Table 4). More specifically, in Study 1, the negative relationship between self-centered impulsivity and task performance only held for leaders who were low on Conscientiousness. For the leaders high on Conscientiousness, no negative association was found, which provides some evidence for the notion that Conscientiousness may buffer the negative effects of certain psychopathic traits on performance. No evidence was found for such a buffering effect in Study 2, however. In sharp contrast, Study 2 indicated that the negative relationship between cold-heartedness and both contextual performance and charismatic leadership only held for leaders who were *high* on Conscientiousness. In this case, Conscientiousness showed itself more as an amplifying factor rather than a protective factor. One post-hoc explanation for this finding is that cold-hearted leaders who are highly

conscientious, may particularly strive for personal achievement while considering any interpersonal facilitation and -inspiration as useless for their own advancement.

**Psychopathy as monolithic versus multifaceted construct.** Finally, our third theoretical contribution pertains to the very nature of the psychopathy construct. Although most psychopathy researchers tend to agree that psychopathy is characterized by multiple psychopathic features (Hare, 1991; LeBreton et al., 2006), both the differential severity and the moderated-expression model assume that these features covary, justifying a unitary treatment of the psychopathy construct (Lilienfeld et al., 2015). In contrast, the differential configuration model explicitly acknowledges the multi-faceted nature of psychopathy. Across both studies, the differential configuration model and the third hybrid model, which combines the moderated-expression and the differential configuration model, gained a fair amount of empirical support. For the other models, a consistent pattern of relationships was lacking. As such, our results strongly support the notion of psychopathy as a multifaceted construct.

In line with the differential configuration model, the different psychopathy features manifested in different and at times even opposing relations with the effectiveness indicators. In contrast to the widely held view that psychopathy is inherently maladaptive, and therefore has a negative effect on work performance (e.g., O'Boyle et al., 2012), both of our studies found that boldness was positively related to adaptive performance as rated by the leaders' direct subordinates. Consistent with O'Boyle et al.'s (2012) results, however, the different psychopathy dimensions were also negatively related to workplace performance in our studies – although they related to different performance dimensions. Whereas disinhibition (in Study 1) and boldness (in Study 2) related negatively to the leaders' task performance, meanness was negatively related to contextual performance in both studies. Moreover, the different psychopathy dimensions also differentially related to charismatic leadership. Whereas boldness (Study 1) and disinhibition (Study 2) were positively related to charismatic



leadership, meanness showed a negative relationship. Although Study 1's findings were consistent with recent research on this topic (Costello et al., 2018; Neo et al., 2018), revealing a positive association with boldness but not with disinhibition, Study 2 found a positive relationship between disinhibition and charismatic leadership. One reason for this might be that some characteristics of disinhibition also contribute to charismatic leadership, such as risk-taking and unconventional leader behavior (e.g., Conger et al., 1997). Based on these findings, it can be concluded that it is the meanness component of psychopathy that consistently and negatively relates to leadership effectiveness, whereas both boldness and disinhibition were sometimes associated with markers of good leadership. Such awareness is important, particularly because organizational researchers tend to rely on unidimensional, global measures of psychopathy. This neglect of qualitatively different psychopathy dimensions might have obscured relationships with leader effectiveness, creating further ambiguity about how psychopathic traits relate to leadership effectiveness. Because unidimensional measures of psychopathy may conceal these differential relations, we recommend future researchers to adopt multidimensional conceptualizations such as the triarchic model of psychopathy (Patrick et al., 2009) when investigating psychopathy in the work context. More generally, this paper shows how a better understanding of the relationship between psychopathy and leadership effectiveness can be obtained by treating both psychopathy *and* leadership effectiveness as multifaceted constructs when investigating their interrelations.

This study further invigorates evidence that high levels of certain psychopathic traits are adaptive in a leadership context (e.g., Costello et al., 2018; Lilienfeld, Waldman, et al., 2012; Neo et al., 2018). In this regard, the finding that boldness can fuel leadership effectiveness may feed the longstanding debate on whether or not boldness is a defining feature of psychopathy (Miller & Lynam, 2012; Lilienfeld, Patrick, et al., 2012). Miller and

Lynam (2012), for example, concluded that boldness is merely peripheral to the psychopathy construct considering its non-association with maladaptive behavior. However, the fundamentally paradoxical features have always been at the heart of conceptual discussions of psychopathy: On the one hand, psychopaths are self-centered, impulsive, callous, and guiltless, while on the other hand, they are charming, socially potent, fearless, and articulate (see for instance Cleckley, 1941). When focusing on separate subscales, we therefore consider each of the three dimensions rightly so as *psychopathic traits*. When interested in identifying corporate or *subclinical psychopaths*, however, it could be argued that one should score high –or above average– on all three dimensions. Nevertheless, the results of the current study emphasize the importance of fearless dominance or “boldness” for psychopathy research in leadership and further indicate how “neglecting it would paint an incomplete picture of how psychopathy manifests itself in the workplace” (Neo et al., 2018, p. 200).

### **Limitations and Directions for Future Research**

The use of dyadic research designs in which leaders’ (self-rated) psychopathy traits are related to external, subordinate-rated effectiveness criteria represents an important strength of the current research by eliminating common-source bias. Nevertheless, the procedures used in the current studies, whereby leaders were asked to each nominate one subordinate (of their choice), might have introduced a type of selection bias in the sense that leaders may have nominated one of their “favorite” subordinates, maximizing the chance that these subordinates would provide more favorable ratings. If this mechanism indeed systematically occurred in our studies, its effect would probably have been to attenuate potential negative relationships between leader psychopathy and effectiveness criteria. The fact that several of these negative relationships could be identified in these studies, however, suggests that there was indeed a sufficient level of variability present in these effectiveness ratings in order to find reliable (and replicable) effects. Nevertheless, future research might

want to use multi-rater designs in which multiple, preferably randomly selected coworkers are invited to provide effectiveness ratings.

A notable finding of the current research was that little evidence was found for both interaction- and curvilinear effects across both studies, nor for moderated curvilinear effects. Investigating such effects requires testing two-way and three-way interactions, respectively. Several factors, including small sample size (Alexander & DeShon, 1994), measurement error (Busemeyer & Jones, 1983), range restriction (Aguinis & Stone-Romero, 1997), and the absence of strong main effects (Rogers, 2002), have been shown to hamper the detection of such interaction effects. Although the issue of sample size was addressed by including a second, much larger sample, it is likely that several of these other factors still contributed to the fact that relatively little significant interactions were observed. For instance, it is likely that, in a general population sample of leaders, range restriction of psychopathy scores increases the chance of Type II errors and further undermines statistical power for detecting interaction effects (Aguinis & Stone-Romero, 1997; Pierce & Aguinis, 2013). In our samples, average psychopathy scores (on a 4-point scale) were 2.07 ( $SD = .19$ ) and 2.14 ( $SD = .25$ ) in Study 1 and 2 respectively, which might have been too restricted for detecting interaction effects. Further, the use of self (for psychopathy) and other ratings (for outcome variables) places a ceiling on the strength of the main effects due to the maximum level of self-other agreement that may be observed on the same variables, which is typically around .30 (Atwater & Yammarino, 1992; Lee & Carpenter, 2018). This, again, hampers the detection of significant interaction effects in support for the differential-severity and/or the moderated-expression model.

Given that the models tested in this research already contained a significant number of multiplicative effects, it was also a deliberate choice not to introduce any additional complexity of this sort by adding additional—potentially relevant—moderating effects. For

instance, research indicates that there might be sex differences in the relationships between psychopathic traits and leadership effectiveness, such that higher levels of psychopathic traits are more easily tolerated in men, while female leaders have a greater likelihood of being appraised negatively when displaying psychopathic traits (Landay et al., 2019). Nevertheless, in the current study we wanted to keep the focus on presenting and testing the three basic models of successful psychopathy and their hybrid forms. Having established this organizing framework, however, future research can explore whether adding such moderating variables provides an even more detailed understanding of psychopathy in leadership contexts.

In a similar vein, in the current paper it was decided not to include additional trait variables that could potentially help to explain the effects of psychopathic personality. Prior research examining the effects of narcissism in a leadership context, for instance, has shown that the effect of this trait on leadership emergence is driven by extraversion (Grijalva et al., 2015). Much like narcissism, psychopathy has also been described from general trait perspectives such as the FFM (Lynam & Widiger, 2007) or HEXACO (Marcus et al., 2019). In this regard, both the NEO PI-R and the HEXACO-PI-R trait constructs have been shown to account for substantial portions of the variance in psychopathy scores (e.g., mean adjusted  $R^2$  of .40 and .49 respectively, in Gaughan et al., 2012). Therefore, it is reasonable to question whether the observed relationships between psychopathy and leadership effectiveness would hold after general traits are taken into account. Yet, this exercise was not done in the current set of studies for a number of reasons, including the fact that complete Big Five data was only gathered in the smallest sample (Study 1). More importantly, however, controlling for these general traits would amount to removing so much meaningful variance in psychopathy that it is unclear what the remaining (unique) variability would represent. Indeed, previous research has shown that dark personality traits such as psychopathy can effectively be understood as compound constructs, subsuming (facets of) more general trait models (e.g., Wille et al.,

2013). Partialling out this information would lead to meaningless estimates of the relations between psychopathy and leadership effectiveness, which was the focus of this paper. Of course, when the objective is to explicitly test the incremental validity of the unique ‘dark’ components of psychopathy beyond general traits; or when the goal is to investigate general trait models as explanations for *how* psychopathy (as a compound construct) may have certain effects on leadership outcomes, such an approach is highly encouraged.

Finally, two features of our data-analytical strategy should be discussed as well. First, when testing the conceptual models, we considered it important to include a range of outcome variables, rather than a single one. As a result, four analyses were conducted to test each of the models. Although we considered using a correction for multiple testing (e.g., Bonferroni, Holm-Bonferroni), the cost of reducing statistical power and thus increasing the probability of producing false negatives outweighed the benefits of such a correction, particularly when investigating two- and three-way interaction effects (i.e., in 6/7 of the alternative models) on observer-rated criteria. Although this strategy might have led to false positives (i.e., Type I errors), it is important to stress that we focused on *patterns of relationships* with external criteria –both within and across studies– when evaluating the conceptual models, rather than on one-off relationships. Second, all models in Study 1 were tested using regression-based (moderation) techniques. As this procedure does not eliminate measurement errors (Hill et al., 2021), Study 1’s results should be interpreted cautiously. Although Study 1’s sample size did not allow applying corrections for possible measurement errors, this issue was addressed in Study 2 by relying on Structural Equation Modeling. Despite these efforts, endogeneity – which occurs when an independent variable correlates with the error term of the outcome variable – might still have been an issue in both studies, for example due to omitted variables (Hill et al., 2021). Relatedly, there might also be alternative ways to test the proposed conceptual models. With regard to the differential

configuration model in particular, one alternative approach could be to explicitly test for different profiles of psychopathy based on systematic patterns of covariation between the different subdimensions and across different groups of leaders. This approach boils down to modeling profiles of scores and can be done by means of person-centered methods (for a discussion of various alternatives, see Hofmans et al., 2020). Importantly, the (non)existence of such profiles of co-existing psychopathy characteristics will also inform us about the nature of this construct and how it manifests in leader populations. Exploring the effects of individual subdimensions, as was done in the current paper, is only one first step in the direction of a more nuanced perspective on the leadership outcomes of this multifaceted trait.

## **Conclusion**

Leader psychopathy is a topic that has recently sparked a lot of discussion both in academia and in corporate life. The key objective of this paper was to introduce an overarching framework for investigating psychopathic traits in the context of leadership, hereby departing from three different conceptualizations of *successful psychopathy*. Further, by building hybrid models of these conceptualizations, we showed that these accounts are not so much competing models, but rather different variations to the same overarching theme. Central to this theme is the idea that psychopathy is multifaceted, that different subdimensions can have divergent effects, and that these effects may also depend on the specific standing on this trait *and* on other traits. By formalizing and integrating these perspectives, we hope to inspire other researchers and give direction to future attempts aimed at further scrutinizing the relationships between psychopathy and leadership effectiveness.

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Table 1

*Summary of the Different Conceptual Models for Successful Psychopathy and its Hybrids, Including its Hypotheses*

Conceptual Model	Hypothesis/Expectations	Test of Interest	Hypothesized Result	Support?	
				Study 1	Study 2
<u>Model 1:</u> Differential severity	Hypothesis 1: The relationship between psychopathy and leadership effectiveness ( <i>especially adaptive performance and charismatic leadership</i> ) is characterized by an inverted U-shape, such that a certain degree of psychopathic tendencies (i.e., mild expression) is desirable and associated with higher leadership effectiveness, whereas too much (i.e., clinical) causes harm	Testing the quadratic relationship between global psychopathy and leadership effectiveness	Inverted U-shaped relationships between global psychopathy and leadership effectiveness	No: linear relationships	No: linear relationships
<u>Model 2:</u> Moderated-expression	Hypothesis 2: The relationship between psychopathy and leadership effectiveness ( <i>especially performance</i> ) is moderated by C, such that C initiates a positive relationship between psychopathy and effectiveness –or at least buffers the negative relationship between psychopathy and effectiveness	Testing the interaction of C in the relationship between global psychopathy and leadership effectiveness	Interaction effect between the moderator and global psychopathy: C initiates positive relationships or buffers the negative relationships between psychopathy and leadership effectiveness	No	No
<u>Model 3:</u> Differential configuration	Hypothesis 3: The psychopathy dimensions are differentially related to leadership effectiveness: <i>Boldness</i> is positively related to (adaptive) performance and charismatic leadership (3a) <i>Disinhibition</i> is negatively related to (task) performance (3b) <i>Meanness</i> is negatively related to (contextual) performance and charismatic leadership (3c)	Testing the linear relationship between the different psychopathy dimensions and leadership effectiveness	Differential (positive and negative) linear relationships between the different psychopathy dimensions and leadership effectiveness	Yes	Yes



<u>Hybrid 1:</u> Differential severity + Moderated-expression	Expectation 1: The curvilinear (i.e., inverted U-shaped) relationship between psychopathy and leadership effectiveness is moderated by C, such that moderate levels of psychopathy only relate to effectiveness when C is high	Testing the interaction of C in the quadratic relationship between global psychopathy and leadership effectiveness	Quadratic interaction effect between the moderator and global psychopathy: Inverted U-shaped relationship between global psychopathy and leadership effectiveness when C is high	No	No
<u>Hybrid 2:</u> Differential severity + Differential configuration	Expectation 2: Some psychopathy dimensions are curvilinearly related (i.e., inverted U) to leadership effectiveness (e.g., <i>boldness</i> , <i>disinhibition</i> ), while others are not (e.g., <i>meanness</i> )	Testing the quadratic relationship between the different psychopathy dimensions and leadership effectiveness	Inverted U-shaped relationship between some psychopathy dimensions (e.g., <i>boldness</i> , <i>disinhibition</i> ) and leadership effectiveness	No	No
<u>Hybrid 3:</u> Moderated-expression + Differential configuration	Expectation 3: The relationship between the psychopathy dimensions and leadership effectiveness is moderated by C, such that C buffers the hypothesized negative effects, whereas it strengthens the hypothesized positive relationships	Testing the interaction of C in the relationship between the different psychopathy dimensions and leadership effectiveness	Interaction effects between the moderator and the different psychopathy dimensions: C initiates a positive relationship or buffers negative relationships between psychopathy dimensions and effectiveness	Weak	Interaction, although C strengthens rather than buffers <i>negative</i> relationships
<u>Hybrid 4:</u> Differential severity + Moderated-expression + Differential configuration	Expectation 4: The curvilinear (i.e., inverted U-shaped) relationship between the psychopathy dimensions and leadership effectiveness is moderated by C, such that moderate levels of psychopathic traits only relate to effectiveness when C is high	Testing the interaction of C in the quadratic relationship between the different psychopathy dimensions and leadership effectiveness	Quadratic interaction effects between the moderator and the different psychopathy dimensions: Inverted U-shaped relationship between psychopathy dimensions and leadership effectiveness when C is high	No	No

*Note.* C = Conscientiousness

Table 2

*Descriptive Statistics and Variable Intercorrelations Study 1 (N = 178 dyads)*

	M	SD	min	max	1.	2	3.	4.	5.	6.	7.	8.	9.	10.
1. Sex <sup>a</sup>	-	-	-	-	-									
2. Age	46.15	8.50	23	64	-.12	-								
<b>3. Psychopathy (PPI-R)</b>	2.07	.19	1.32	2.56	-.09	-.06	<b>.88</b>							
4. Psychopathy <sup>2</sup>	.04	.06	.00	.56	.22**	-.10	-.20**	-						
5. Boldness	2.53	.34	1.33	3.44	.02	.13 <sup>†</sup>	.74***	-.18*	<b>.88</b>					
6. Boldness <sup>2</sup> (FD <sup>2</sup> )	.12	.19	.00	1.43	.20**	-.08	-.13 <sup>†</sup>	.73***	-.14 <sup>†</sup>	-				
7. Disinhibition	1.76	.23	1.30	2.34	-.06	-.23**	.71***	-.07	.10	-.02	<b>.87</b>			
8. Disinhibition <sup>2</sup> (ScI <sup>2</sup> )	.05	.07	.00	.34	-.02	-.17*	.06	.37***	-.15 <sup>†</sup>	.13 <sup>†</sup>	.27**	-		
9. Meanness	2.11	.35	1.00	3.25	-.27***	.03	.37***	-.20**	.28***	-.12 <sup>†</sup>	-.04	-.11	<b>.77</b>	
10. Meanness <sup>2</sup> (CH <sup>2</sup> )	.12	.20	.00	1.30	.04	-.01	-.06	.34***	-.12	.43***	-.03	.08	.13 <sup>†</sup>	-
<b>11. Conscientiousness (C)</b>	4.10	.42	2.58	5.00	.08	.14 <sup>†</sup>	-.13 <sup>†</sup>	-.01	.29***	.02	-.48***	-.21**	.02	.08
12. C×Psychopathy	-.01	.08	-.43	.18	.03	.04	.01	-.33***	.08	-.02	-.10	-.42***	.02	-.45
13. C×Psychopathy <sup>2</sup>	.00	.03	-.12	.27	.08	.05	-.35***	.44***	-.17*	.41***	-.32***	-.04	-.19*	.33***
14. C×FD	.04	.15	-.58	1.04	-.03	.02	.08	-.34***	.02	.05	.11	.06	-.06	-.08
15. C×FD <sup>2</sup>	.00	.11	-.85	.70	.06	.05	-.08	.34***	.18*	.12	-.29***	-.13 <sup>†</sup>	.01	.19*
16. C×ScI	-.05	.12	-.73	.18	.09	.07	-.08	-.07	.10	-.07	-.22**	-.62***	.03	.04
17. C×ScI <sup>2</sup>	-.01	.06	-.43	.11	.06	.11	-.27***	.04	.16*	-.01	-.59***	-.42***	.11	.06
18. C×CH	.00	.16	-.77	.93	-.09	-.12	.01	-.20**	-.06	.00	.03	.18*	.12 <sup>†</sup>	-.06
19. C×CH <sup>2</sup>	.01	.11	-.68	.60	.15*	-.05	-.09	.24**	.08	.15 <sup>†</sup>	-.19*	-.06	-.04	.28***
<b>20. Task performance</b>	4.13	.76	1.00	5.00	.16*	-.06	-.13 <sup>†</sup>	.09	-.03	.06	-.18*	-.04	.03	.13 <sup>†</sup>
<b>21. Contextual performance</b>	3.85	.70	1.71	5.00	.09	-.05	.01	-.01	.06	-.02	.01	-.01	-.14 <sup>†</sup>	.01
<b>22. Adaptive performance</b>	3.89	.67	1.56	5.00	.05	-.02	.12 <sup>†</sup>	.01	.19*	-.02	.01	-.01	.02	.04
<b>23. Charismatic leadership</b>	3.26	.66	1.10	5.00	.11	-.01	.17*	.02	.24**	-.04	.09	.01	-.14 <sup>†</sup>	-.01
	<b>11.</b>	<b>12.</b>	<b>13.</b>	<b>14.</b>	<b>15.</b>	<b>16.</b>	<b>17.</b>	<b>18.</b>	<b>19.</b>	<b>20.</b>	<b>21.</b>	<b>22.</b>	<b>23.</b>	
<b>11. Conscientiousness (C)</b>	<b>.81</b>													
12. C×Psychopathy	.18*	-												
13. C×Psychopathy <sup>2</sup>	.49***	-.07	-											
14. C×FD	-.10	.62***	-.20**	-										
15. C×FD <sup>2</sup>	.55***	-.21***	.64***	-.50***	-									
16. C×ScI	.32***	.62***	.12	-.19*	.25**	-								
17. C×ScI <sup>2</sup>	.71***	.23**	.46***	-.31***	.57***	.60***	-							
18. C×CH	-.06	.33***	-.13 <sup>†</sup>	.44***	-.32***	-.27***	-.23***	-						
19. C×CH <sup>2</sup>	.57***	-.03	.52***	-.24**	.73***	.22**	.48***	-.20***	-					
<b>20. Task performance</b>	.33***	.07	.14 <sup>†</sup>	-.10	.16*	.18*	.25**	-.02	.14 <sup>†</sup>	<b>.86</b>				
<b>21. Contextual performance</b>	.04	.03	.05	-.01	.04	.04	.02	.02	-.03	.36***	<b>.88</b>			
<b>22. Adaptive performance</b>	.17*	.03	.09	-.07	.11	.10	.14 <sup>†</sup>	-.02	.08	.47***	.64***	<b>.92</b>		
<b>23. Charismatic leadership</b>	.21**	-.01	.11	-.09	.13	.07	.12	-.01	.11	.33***	.58***	.62***	<b>.92</b>	

*Note.* Bold values on the diagonal show the Cronbach's alpha of the relevant variable; <sup>a</sup>Sex is dummy coded such that 0 = man and 1 = woman; FD = fearless dominance, ScI = self-centered impulsivity, CH = cold-heartedness, C = Conscientiousness; Descriptives of mean scores (not sum scores) are reported; Psychopathy was rated on a 4-point scale, C and the criteria on a 5-point scale; Quadratic and interactions terms were computed with centered variables; <sup>†</sup> $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 3

*Regression Analyses Testing The Three Models of Successful Psychopathy: Study 1 (N = 178 dyads)*

### Model 1: Testing the differential severity model

		Task performance				Contextual performance			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	Psychopathy	-.52 <sup>†</sup>	.30	.081	.02	.04	.28	.887	.00
Step 2	Psychopathy <sup>2</sup>	.77	.90	.397	.00	-.10	.84	.905	.00
		Adaptive performance				Charismatic leadership			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	Psychopathy	.44 <sup>†</sup>	.26	.098	.02	.59*	.26	.025	.03
Step 2	Psychopathy <sup>2</sup>	.36	.80	.656	.00	.58	.78	.461	.00

### Model 2: Testing the moderated-expression model

		Task performance				Contextual performance			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	Psychopathy	-.36	.28	.208	.12	.06	.28	.837	.00
	C	.57***	.13	.000		.06	.13	.615	
Step 2	C×Psychopathy	.15	.70	.829	.00	.19	.69	.783	.00
		Adaptive performance				Charismatic leadership			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	Psychopathy	.52*	.26	.048	.05	.69**	.26	.007	.09
	C	.29*	.12	.014		.37**	.12	.002	
Step 2	C×Psychopathy	-.01	.65	.990	.00	-.42	.63	.508	.00

### Model 3: Testing the differential configuration model

		Task performance				Contextual performance			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$R^2$
Step 1	FD	-.05	.17	.757	.03	.21	.16	.190	.03
	ScI	-.57*	.25	.020		-.01	.23	.950	
	CH	.06	.17	.716		-.33*	.15	.034	
		Adaptive performance				Charismatic leadership			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$R^2$
Step 1	FD	.40**	.15	.010	.04	.58***	.15	.000	.11
	ScI	-.05	.22	.824		.15	.21	.478	
	CH	-.07	.15	.624		-.42**	.14	.003	

Note. <sup>†</sup> $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ ; C = Conscientiousness; FD = fearless dominance; ScI = self-centered impulsivity; CH = cold-heartedness.

Table 4

*Hierarchical Regression Analyses Testing The Hybrid Model: Differential Severity + Moderated-expression + Differential Configuration in Study 1 (N = 178 dyads)*

<b>PPI-I: FD</b>		<b>Task performance</b>				<b>Contextual performance</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	FD	-.32 <sup>†</sup>	.16	.053	.13	.10	.16	.531	.00
	C	.67***	.13	.000		.04	.13	.783	
Step 2	FD <sup>2</sup>	.16	.29	.586	.00	-.06	.29	.831	.00
Step 3	C×FD	-.57	.43	.188	.01	.02	.43	.959	.00
	C×FD <sup>2</sup>	-.80	.74	.285		.18	.74	.809	
		<b>Adaptive performance</b>				<b>Charismatic leadership</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	FD	.31*	.15	.046	.05	.37**	.15	.013	.08
	C	.19	.12	.124		.24 <sup>†</sup>	.12	.053	
Step 2	FD <sup>2</sup>	.01	.27	.972	.00	-.06	.26	.826	.00
Step 3	C×FD	-.32	.40	.430	.00	-.48	.40	.234	.01
	C×FD <sup>2</sup>	-.17	.69	.804		-.38	.67	.573	
<b>PPI-II: ScI</b>		<b>Task performance</b>				<b>Contextual performance</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	ScI	-.09	.27	.744	.11	.11	.26	.661	.00
	C	.57***	.15	.000		.09	.14	.527	
Step 2	ScI <sup>2</sup>	.46	.82	.578	.00	-.09	.80	.907	.00
Step 3	C×ScI	1.18 <sup>†</sup>	.68	.083	.02	.28	.67	.672	.00
	C×ScI <sup>2</sup>	-1.00	1.85	.588		-.40	1.82	.826	
		<b>Adaptive performance</b>				<b>Charismatic leadership</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	ScI	.32	.25	.196	.04	.70**	.24	.004	.09
	C	.35*	.14	.011		.51***	.13	.000	
Step 2	ScI <sup>2</sup>	.04	.76	.958	.00	.16	.74	.827	.00
Step 3	C×ScI	.26	.63	.676	.01	.06	.60	.920	.00
	C×ScI <sup>2</sup>	1.43	1.72	.406		1.05	1.66	.529	
<b>PPI-III: CH</b>		<b>Task performance</b>				<b>Contextual performance</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	CH	.05	.15	.762	.11	-.28 <sup>†</sup>	.15	.066	.02
	C	.59***	.13	.000		.06	.12	.603	
Step 2	CH <sup>2</sup>	.39	.27	.147	.01	.08	.26	.750	.00
Step 3	C×CH	-.08	.34	.813	.01	.12	.33	.723	.01
	C×CH <sup>2</sup>	-.86	.62	.168		-.62	.60	.306	
		<b>Adaptive performance</b>				<b>Charismatic leadership</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	CH	.03	.14	.831	.03	-.27*	.14	.049	.07
	C	.26*	.12	.029		.33**	.12	.005	
Step 2	CH <sup>2</sup>	.09	.25	.734	.00	.00	.24	.998	.00
Step 3	C×CH	-.06	.32	.840	.00	.06	.31	.855	.00
	C×CH <sup>2</sup>	-.23	.58	.696		-.13	.56	.815	

*Note.* <sup>†</sup> $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ ; FD = fearless dominance; ScI = self-centered impulsivity; CH = cold-heartedness; C = Conscientiousness.

Table 5

*Descriptive Statistics and Variable Intercorrelations Study 2 (N = 668 dyads)*

	M	SD	min	max	1.	2	3.	4.	5.	6.	7.	8.	9.	10.
1.Sex <sup>a</sup>	-	-	-	-	-									
2.Age	48.2 0	7.73	26	77	-.12**	-								
<b>3.Psychopathy (PPI-R-SF)</b>	2.14	.25	1.48	3.11	-.22***	-.09*	<b>.83</b>							
4.Psychopathy <sup>2</sup>	.06	.09	.00	.93	-.03	-.01	.15***	-						
5.Boldness	2.56	.40	1.14	3.71	-.17***	.02	.76***	.01	<b>.82</b>					
6.Boldness <sup>2</sup> (FD <sup>2</sup> )	.16	.21	.00	20.0	.00	-.03	-.04	.54***	-.08*	-				
7.Disinhibition	1.82	.31	1.14	2.93	-.11**	-.17***	.74***	.22***	.18***	.05	<b>.80</b>			
8. Disinhibition <sup>2</sup> (ScI <sup>2</sup> )	.10	.15	.00	1.23	-.10*	.00	.27***	.60***	.06	.12**	.37***	-		
9.Meanness	2.19	.47	1.00	3.57	-.20***	.00	.37***	.03	.19***	-.09*	.04	.01	<b>.74</b>	
10. Meanness <sup>2</sup> (CH <sup>2</sup> )	.22	.31	.00	1.91	.05	.04	.14***	.20***	.04	.08*	.10*	.07	.24***	-
<b>11.Conscientiousness (C)</b>	4.11	.44	2.67	5.00	.04	.03	-.15***	-.01	.13***	.06	-.34***	-.11**	-.08*	.08*
12.C×Psychopathy	-.02	.12	-.65	.60	.00	.03	-.02	-.32***	.05	.01	-.10**	-.39***	.06	.05
13.C×Psychopathy <sup>2</sup>	.00	.06	-.49	.41	.08*	.00	-.31***	-.15***	-.14**	.06	-.34***	-.32***	-.09*	.05
14.C×FD	.02	.18	-.63	1.02	-.07	.06	.06	-.27***	.08*	.10*	-.01	-.12**	.05	.02
15.C×FD <sup>2</sup>	.01	.12	-1.01	.71	.04	.01	-.08*	.03	.15***	.04	-.25***	-.15***	-.06	.04
16.C×ScI	-.05	.15	-1.07	.54	.06	-.02	-.10**	-.24***	-.01	-.07	-.16**	-.47***	.00	.08
17.C×ScI <sup>2</sup>	-.01	.10	-1.11	.33	.09*	.03	-.33***	-.25***	-.02	-.05	-.48***	-.47***	-.10*	.02
18.C×CH	-.02	.21	-.91	.97	.02	.04	.06	-.07	.06	-.02	.00	-.10*	.11**	-.04
19.C×CH <sup>2</sup>	.01	.16	-.85	1.07	.04	.03	-.04	.01	.10*	.03	-.13**	-.08*	-.08*	.14***
<b>20.Task performance</b>	4.12	.70	1.00	5.00	.05	.02	-.17***	-.02	-.17***	.02	-.09*	-.05	-.06	-.01
<b>21.Contextual performance</b>	4.07	.57	2.00	5.00	.07	-.05	-.05	-.01	-.04	-.01	.01	.00	-.13**	-.04
<b>22.Adaptive performance</b>	3.95	.49	1.44	5.00	-.03	-.02	.09*	.01	.10*	.02	.05	-.01	-.02	-.02
<b>23.Charismatic leadership</b>	3.61	.42	2.05	4.85	.04	-.04	.09*	.04	.04	.00	.13**	.04	-.06	.00
	<b>11.</b>	<b>12.</b>	<b>13.</b>	<b>14.</b>	<b>15.</b>	<b>16.</b>	<b>17.</b>	<b>18.</b>	<b>19.</b>	<b>20.</b>	<b>21.</b>	<b>22.</b>	<b>23.</b>	
<b>11.Conscientiousness (C)</b>	<b>.81</b>													
12.C×Psychopathy	.10*	-												
13.C×Psychopathy <sup>2</sup>	.54***	.28***	-											
14.C×FD	-.03	.74***	.09*	-										
15.C×FD <sup>2</sup>	.64***	.05	.65***	-.09*	-									
16.C×ScI	.19***	.76***	.34***	.18***	.18***	-								
17.C×ScI <sup>2</sup>	.55***	.39***	.74***	.07	.51***	.54***	-							
18.C×CH	-.02	.39***	.04	.16***	-.04	.11**	.04	-						
19.C×CH <sup>2</sup>	.62***	.17***	.49***	.07	.46***	.16***	.39***	.13**	-					
<b>20.Task performance</b>	.13**	-.01	.13**	-.01	.11**	-.01	.09*	-.02	.09*	<b>.84</b>				
<b>21.Contextual performance</b>	-.06	.01	-.01	.02	-.07	.03	.02	-.10**	-.04	.39***	<b>.86</b>			
<b>22.Adaptive performance</b>	.03	.03	.01	.04	.01	.01	.02	-.02	.03	.48***	.55***	<b>.86</b>		
<b>23.Charismatic leadership</b>	.04	.03	.02	.06	.04	.01	-.02	-.08*	.03	.41***	.58***	.62***	<b>.83</b>	

*Note.* Bold values on the diagonal show the Cronbach's alpha of the relevant variable; <sup>a</sup>Sex is dummy coded such that 0 = man and 1 = woman; FD = fearless dominance, ScI = self-centered impulsivity, CH = cold-heartedness, C = Conscientiousness; Descriptives of mean scores (not sum scores) are reported; Psychopathy was rated on a 4-point scale, C and the criteria on a 5-point scale; Quadratic and interactions terms were computed with centered variables; \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 6

*Structural Equation Modeling Testing The Three Models of Successful Psychopathy: Study 2 (N = 668 dyads)*

### Model 1: Testing the differential severity model

		Task performance				Contextual performance			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	Psychopathy	-.57***	.13	.000	.04	-.13	.10	.210	.00
Step 2	Psychopathy <sup>2</sup>	.06	.40	.875	.00	-.03	.31	.931	.00
		Adaptive performance				Charismatic leadership			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	Psychopathy	.20*	.08	.018	.01	.19*	.08	.017	.01
Step 2	Psychopathy <sup>2</sup>	-.07	.22	.743	.00	.10	.26	.716	.00

### Model 2: Testing the moderated-expression model

		Task performance				Contextual performance			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	Psychopathy	-.51***	.13	.000	.06	-.17	.11	.114	.01
	C	.21**	.07	.003		-.12	.06	.065	
Step 2	C×Psychopathy	-.23	.29	.438	.00	.11	.27	.671	.00
		Adaptive performance				Charismatic leadership			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	Psychopathy	.22**	.09	.010	.01	.21**	.08	.010	.02
	C	.06	.05	.225		.07	.05	.129	
Step 2	C×Psychopathy	.18	.20	.376	.00	.12	.19	.530	.00

### Model 3: Testing the differential configuration model

		Task performance				Contextual performance			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	<i>R</i> <sup>2</sup>	<i>b</i>	<i>SE(b)</i>	<i>p</i>	<i>R</i> <sup>2</sup>
Model 1:	FD	-.31***	.09	.000	.05	-.02	.07	.832	.03
	ScI	-.16	.11	.131		.04	.09	.691	
	CH	-.05	.09	.550		-.20**	.07	.003	
		Adaptive performance				Charismatic leadership			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	<i>R</i> <sup>2</sup>	<i>b</i>	<i>SE(b)</i>	<i>p</i>	<i>R</i> <sup>2</sup>
Model 1:	FD	.15*	.06	.011	.02	.05	.06	.411	.04
	ScI	.07	.07	.342		.21**	.07	.001	
	CH	-.07	.06	.217		-.09	.05	.070	

Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ; C = Conscientiousness; FD = fearless dominance; ScI = self-centered impulsivity; CH = cold-heartedness.

Table 7

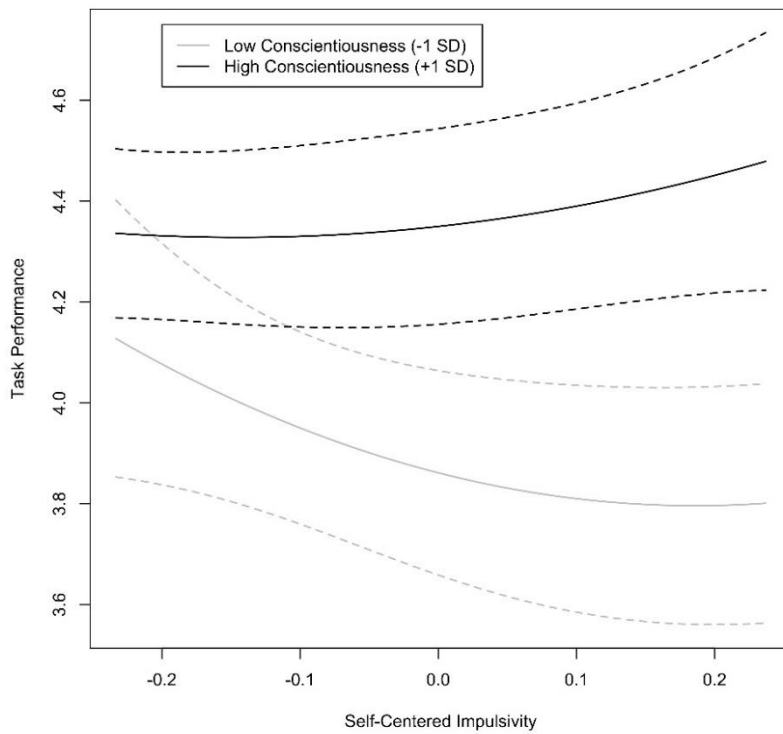
*Structural Equation Modeling Testing The Hybrid Model: Differential Severity + Moderated-expression + Differential Configuration in Study 2 (N = 668 dyads)*

<b>PPI-I: FD</b>		<b>Task performance</b>				<b>Contextual performance</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	FD	-.41***	.08	.000	.08	-.05	.07	.452	.01
	C	.32*	.07	.000		-.09	.06	.147	
Step 2	FD <sup>2</sup>	-.07	.20	.724	.00	-.05	.16	.741	.00
Step 3	C×FD	.27	.23	.247	-	.11	.22	.611	-
	C×FD <sup>2</sup>	.83	.46	.071		-.30	.65	.643	
		<b>Adaptive performance</b>				<b>Charismatic leadership</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	FD	.14*	.06	.012	.01	.05	.05	.345	.01
	C	.02	.05	.752		.04	.04	.364	
Step 2	FD <sup>2</sup>	.06	.11	.576	.00	-.02	.14	.911	.00
Step 3	C×FD	.13	.14	.336	-	.26	.15	.090	-
	C×FD <sup>2</sup>	-.22	.27	.430		.24	.54	.652	
<b>PPI-II: ScI</b>		<b>Task performance</b>				<b>Contextual performance</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	ScI	-.12	.12	.325	.03	-.05	.10	.645	.01
	C	.23*	.08	.006		-.11	.07	.111	
Step 2	ScI <sup>2</sup>	-.09	.27	.734	.00	-.09	.28	.748	.00
Step 3	C×ScI	-.69	.38	.073	-	.14	.32	.648	-
	C×ScI <sup>2</sup>	.72	.73	.325		1.04	.94	.270	
		<b>Adaptive performance</b>				<b>Charismatic leadership</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	ScI	.16	.08	.052	.01	.30**	.08	.000	.04
	C	.08	.06	.147		.14*	.05	.009	
Step 2	ScI <sup>2</sup>	-.21	.16	.202	.00	-.07	.17	.676	.00
Step 3	C×ScI	-.09	.28	.739	-	.10	.25	.684	-
	C×ScI <sup>2</sup>	.32	.50	.528		-.18	.53	.740	
<b>PPI-III: CH</b>		<b>Task performance</b>				<b>Contextual performance</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	CH	-.10	.08	.220	.03	-.22**	.07	.001	.03
	C	.25***	.07	.000		-.12	.06	.050	
Step 2	CH <sup>2</sup>	-.04	.18	.823	.00	.01	.15	.937	.00
Step 3	C×CH	-.02	.19	.902	-	-.41*	.18	.019	-
	C×CH <sup>2</sup>	.34	.39	.388		-.08	.64	.894	
		<b>Adaptive performance</b>				<b>Charismatic leadership</b>			
		<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$	<i>b</i>	<i>SE(b)</i>	<i>p</i>	$\Delta R^2$
Step 1	CH	-.03	.06	.546	.00	-.07	.05	.142	.01
	C	.03	.05	.492		.04	.04	.355	
Step 2	CH <sup>2</sup>	-.03	.13	.851	.00	.04	.12	.732	.00
Step 3	C×CH	-.06	.16	.690	-	-.27*	.13	.032	-
	C×CH <sup>2</sup>	-.00	.44	.993		.10	.43	.826	

Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ; FD = fearless dominance; ScI = self-centered impulsivity;

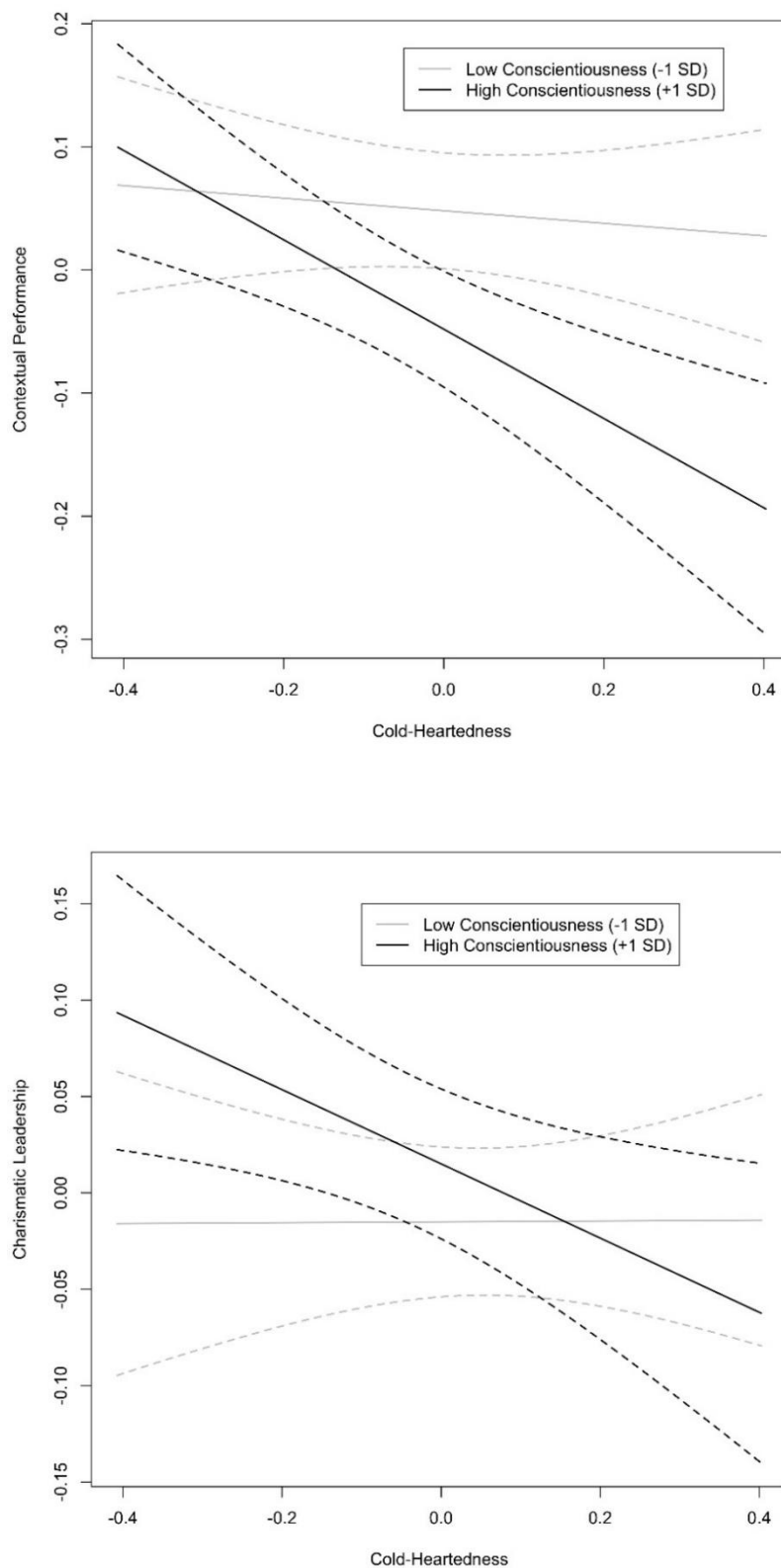
CH = cold-heartedness; C = Conscientiousness;  $R^2$  values are not computed by Mplus version

8.4 when the model includes latent three-way interactions.

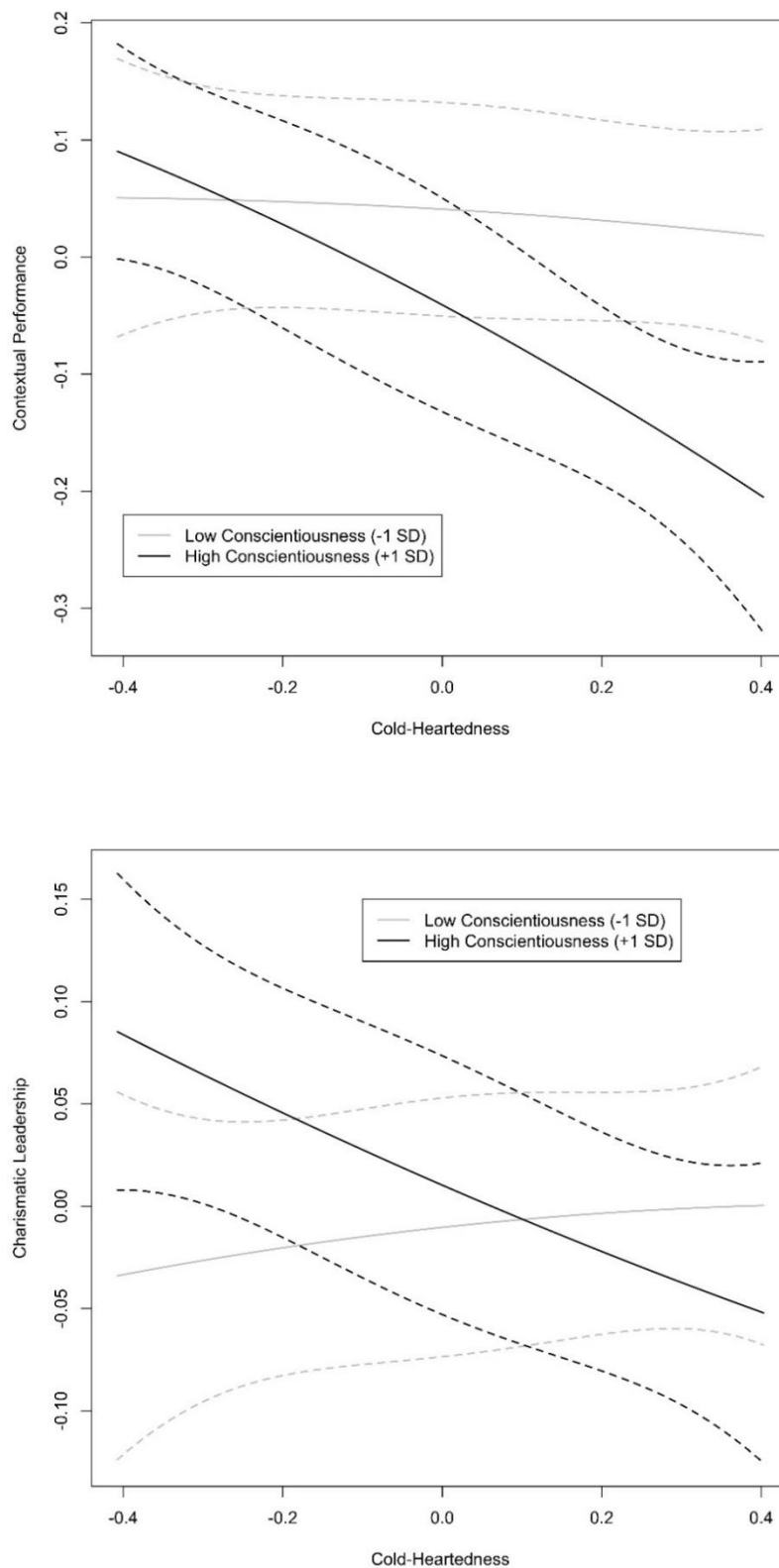


*Figure 1.* Moderating effect of Conscientiousness in the quadratic relationship between self-centered impulsivity and task performance in Study 1. Dashed lines represent the 95% confidence intervals.





*Figure 2.* Moderating effect of Conscientiousness in the relationship between cold-heartedness and leadership effectiveness in Study 2. Dashed lines represent the 95% confidence intervals.



*Figure 3.* Moderating effect of Conscientiousness in the quadratic relationship between cold-heartedness and leadership effectiveness in Study 2. Dashed lines represent the 95% confidence intervals.

## **Appendix**

### **Performance Questionnaire: Full item Set**

#### **Task performance**

1. Performs duties thoroughly and to perfection
2. Sets high quality standards for work performance
3. Delivers work with a minimal number of errors and instances of carelessness

#### **Contextual performance**

4. Praises coworkers when they are successful
5. Supports or encourages a coworker with a personal problem
6. Talks to others before taking actions that might affect them
7. Says things to make people feel good about themselves or the work group
8. Encourages others to overcome their differences and get along
9. Treats others fairly
10. Helps someone without being asked

#### **Adaptive performance**

11. Develops creative solutions to problems at work
12. Approaches a complex problem from different angles
13. Develops innovative methods when a known solution is inadequate
14. Deals with unpredictable and unexpected work situations appropriately
15. Takes effective action when necessary without having to know the total picture or have all the facts at hand
16. Effectively adjusts plans, actions, or priorities to deal with changing situations
17. Deals with difficult circumstances or a highly demanding workload or schedule adequately
18. Responds to unexpected news appropriately
19. Manages frustrations due to failure or a disappointing result appropriately

Sources: Pulakos, Arad, Donovan, and Plamondon (2000), Renn and Fedor (2001), Van Scotter and Motowidlo (1996).