

## ABSTRACT

OLLS, COURTNEY WILLIAMS. Leader Personality Traits and Subordinate Perceptions of Destructive Leadership: A Pattern-Oriented Approach. (Under the direction of Dr. S. Bartholomew Craig.)

Destructive leadership can have disastrous consequences for employees, organizations, and the public. Despite growing interest in this area, consensus has yet to be reached regarding which, if any, individual differences are associated with destructive leadership. This study expands upon the existing research by using cluster analysis and latent profile analysis to address this question. The primary objectives of this study were to: 1) identify a set of distinct personality profiles within a sample of organizational leaders, and 2) determine whether differences exist among these personality profiles on subordinate ratings of destructive leadership. Results based on a sample of 242 subordinates rating 135 leaders yielded nine distinct personality profiles comprising four empirically derived personality dimensions (Egocentrism/Narcissism, Power/Influence, Conscientiousness, and Agreeableness). One cluster profile, the “Cantankerous Slackers,” was rated as significantly more destructive compared to leaders in four other clusters. Implications of the findings—including the apparent incongruence between the two methodologies used—will be discussed.

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Leader Personality Traits and Subordinate Perceptions of Destructive Leadership:  
A Pattern-Oriented Approach

by  
Courtney Williams Olls

A dissertation submitted to the Graduate Faculty of  
North Carolina State University  
in partial fulfillment of the  
requirements for the Degree of  
Doctor of Philosophy

Psychology

Raleigh, North Carolina

2016

APPROVED BY:

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Dr. S. Bartholomew Craig  
Chair of Advisory Committee

---

Dr. Adam W. Meade

---

Dr. Shevaun D. Neupert

---

Dr. Mark A. Wilson

## **BIOGRAPHY**

Courtney Williams Olls was born in 1983 in Washington, DC. After graduating from the Holton-Arms School in Bethesda, Maryland, she received her Bachelor of Arts degree in Psychology from the University of Virginia in 2006. Courtney spent the next four years working in clinical trials research—first at Massachusetts General Hospital and then at the University of North Carolina at Chapel Hill. She began her graduate education in the Industrial/Organizational Psychology Doctoral Program at North Carolina State University in the fall of 2010 and received her Master of Science degree in 2014. During this time she had several particularly valuable opportunities, including an internship at GlaxoSmithKline and an assistantship with the North Carolina State Highway Patrol. She is currently employed as an Organization Development Advisor at Quintiles in Research Triangle Park, North Carolina.

## ACKNOWLEDGMENTS

First, I would like to thank my committee members: Bart Craig, Mark Wilson, Adam Meade, and Shevaun Neupert for their feedback and guidance throughout this process.

Special thanks to Bart Craig for his extraordinary patience and infinite wisdom. Additional thanks to Mark Wilson for his sense of humor and for giving me the opportunity to work with him and Bart on the State Highway Patrol projects. The experience I gained while working with you both has been invaluable.

Thank you to MK Ward, who has been my friend since day one of graduate school. I know I wouldn't have survived prelims—much less graduate school—without you. I would also like to extend my gratitude to Ruchi Patel and Alexandra Mullins, who have been wonderful friends, mentors, and graduate school “sisters” over the years.

Loving thanks to my family (Mom, John, Charles, Alex, Brooks, Charlie, Bennett, Walker, as well as extended family members) and all of my friends—both near and far—who have loved and supported me over all these years. And thank you all for knowing when to ask about school and when to ask about something else instead.

Finally, a huge thank you to my husband Adam for his selfless support, unconditional love, and unwavering confidence in me. Truly, I could not have done this without you. Thank you for knowing me well enough to know when I needed encouragement or prodding, a really good listener or a reality check. And thank you for allowing me the luxury of being a stay-at-home graduate student (and dog parent). I am thrilled to start this next (non-graduate school) chapter of our lives together. This is the moment we've been waiting for!

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Leader Personality Traits and Subordinate Perceptions of Destructive Leadership:  
A Pattern-Oriented Approach

The study of leadership has long captured the interest of researchers, practitioners, and the public alike. There has been no shortage of theoretical and empirical research examining the characteristics of exemplary leaders: their upbringings and early influences, their emergence as leaders, their traits and behaviors, their relationships with followers, and the contexts in which they excel. As researchers have worked to describe what it means to be a good leader, practitioners have sought to prescribe the ingredients necessary for good leadership. Thousands of books have been published on the topic, designed to help anyone—from the mindful to the Machiavellian—with anything, from discovering the leader within to developing followers into leaders, from learning the traits of successful executives to mastering the principles of effective management. At the center of it all is one key question: are good leaders born or made?

While research has yet to converge on the defining features of a good leader, the literature is quite consistent in terms of describing bad leaders. Bad leaders demonstrate poor judgment, an inability to build teams, difficulty building and maintaining relationships, and are generally incapable of learning from their mistakes (J. Hogan, Hogan, & Kaiser, 2011).

While this is a useful start, these are all behaviors. How can we predict *who* will be a bad leader? Perhaps there are certain stable, enduring traits underlying these behaviors. Alternatively, these behaviors may be elicited by some feature(s) of the environment. In order to prevent—or at least mitigate—the consequences of bad leaders, we must begin by identifying their defining characteristics. To that end, there are two primary objectives of

this study: 1) to identify and describe a set of distinct personality trait profiles among a sample of organizational leaders, and 2) determine whether any of these personality profiles can predict subordinate perceptions of destructive leadership.

To address these objectives, I will begin by providing an overview of the dominant perspectives of leadership, then describing two approaches to the study of leadership: the bright side and the dark side, the latter of which encompasses destructive leadership. I will then provide an overview of the extant literature regarding individual differences associated with, or predictive of, destructive leadership. As part of this overview, I will highlight the limitations of the variable-oriented approach that has been used in the vast majority of leadership research and discuss the advantages of using a pattern- or person-oriented approach to study personality predictors of destructive leadership. I will then proceed to address one of the primary study objectives using two pattern-oriented methodologies (hierarchical cluster analysis and latent profile analysis) to determine the set of personality trait profiles that exist in a sample of leaders. Next, I will examine whether these profiles are differentially represented across three organizational levels. I will then assess whether differences exist among the profiles in terms of subordinate perceptions of destructive leadership. Finally, in reviewing the findings of these analyses I will discuss how the results of the two pattern-oriented methodologies differed and the implications for future research.

### **Perspectives on Leadership**

Leaders occupy a central role in organizations, and as such, the study of leadership is a critical part of understanding organizational performance. In the current context, leadership is defined as a process that takes place within organizations, which in turn may be

conceptualized as systematic structures that exist to organize and direct collective effort (Craig & Kaiser, 2012; Kaiser, Hogan, & Craig, 2008).

Kaiser and Hogan (2010) described two dominant perspectives on leadership. One view of leadership is that of a formally defined position: if someone is in charge of something, that person is therefore a leader. Alternatively, leadership may be considered from a human evolutionary standpoint: leadership is a mechanism that evolved over time to influence individuals to forego their individual interests in favor of coordinating collective effort for the long-term welfare of the group. That is to say, leadership is a resource for group survival (Kaiser & Hogan, 2010). Based on this evolutionary standpoint, it follows that modern organizations continue to have leaders because such organizations have, over time, proved to be more successful than those without them. Put differently, the leader role is an adaptive feature of organizations that has evolved over time. The *role* of leader is subsumed under *leadership*, which is a process—not simply a position—occurring within an organization.

Using this evolutionary perspective, leadership may be assessed by measuring group (i.e., organizational) outcomes that are critical for the success of the organization. In other words, the *effectiveness* of the leader can be defined as the extent to which the leader helps the organization achieve its collective goals. Thus, one way to operationalize leader effectiveness is by measuring the performance of the leader's group or team (Craig & Kaiser, 2012).

So what can leaders do to influence group performance? Broadly speaking, leaders affect organizational outcomes via two channels: interpersonal influence and decision-

making (Craig, 2008; Kaiser et al., 2008; Kaiser & Overfield, 2010). Craig and Kaiser (2012) described leader decision-making as largely *intrapersonal*, because it is ultimately a process that occurs within a single individual. Conversely, the *interpersonal* influence channel includes leader behavior that directly affects the behavior of others.

### **The Bright Side of Leadership**

In many cases, as researchers have examined the types of leader behaviors that influence group performance, they have tended to do so through rose-colored glasses. Kaiser and Craig (2014) argued that the academic study of leadership has demonstrated a positivity bias; in most cases, the concept of leadership has a positive connotation. Indeed, Burns (2003) contended that, “if it is unethical or immoral, it is not leadership” (p. 48). Consistent with this positivity bias, Cohen (2010) argued that business ethics and personal integrity were *necessary* (though perhaps not sufficient) for effective leadership. One interesting implication of this view is that it renders the set of individuals who are both “leaders” and “bad” empty because, as soon as an individual behaves immorally, he or she is presumably stripped of the “leader” moniker. Consistent with this, some argue that Hitler cannot be considered a leader despite his ability to coordinate the collective efforts of a huge number of people in conducting horrific, devastating acts of violence and brutality.

Such an idealized view of leadership is consistent with the “bright side” approach, in which the focus is on factors that enhance leadership via their *presence* (Ashforth, 1994; Einarsen, Aasland, & Skogstad, 2007; R. Hogan & Hogan, 2001; Schmidt, 2008). Indeed, Kaiser and Craig (2014) noted that the vast majority of the dominant theories in leadership—including most trait-based theories, leader competency models, leader behavior approaches,

path-goal theory, leader-member exchange theory, charismatic leadership theory, and transformational leadership theory—fall into this category. In emphasizing certain factors associated with effective leadership via their presence, these theories exemplify the bright side approach to leadership. The underlying assumption with the bright side approach is that ineffective leadership is the result of the *absence* of such factors (Ashforth, 1994). Yet, despite its prevalence in extant literature, there is evidence to suggest that such an approach does not represent the full range of factors related to effective leadership.

### **The Dark Side of Leadership**

Hogan and Kaiser (2005) contended that it is necessary to distinguish between good and bad leadership, since “good leadership promotes effective team and group performance... [whereas] bad leadership degrades the quality of life for everybody associated with it” (p. 169). Researchers have become increasingly interested in examining the “dark side” of leadership, which focuses on the actively counterproductive factors that enhance leadership via their *absence* (Craig & Kaiser, 2012). This represents an important shift in the field. According to Craig and Kaiser, “there is a growing consensus in the field that dark side factors that undermine effective leadership are at least as important as traditional bright side factors” in terms of their effect on a variety of individual and organizational outcomes (2012, p. 440). Others go so far as to suggest that studying dark side leadership may be more important than studying the bright side. In his discussion of the importance of studying bad or unethical leadership, one researcher cited an old Russian proverb: “a spoonful of tar can ruin a barrel of honey but... a spoonful of honey has little impact on a barrel of tar” (Hunter, 2012, p. 83). He argued that given the potential negative

outcomes associated with unethical leadership, there may be greater research utility in focusing on the dark side of leadership than on the bright side.

Unfortunately, bad leadership is not a new phenomenon. Based on organizational climate research conducted from the mid-1950s to 1990, between 60 and 75% of employees indicated that their immediate supervisor was the worst part of their job (R. Hogan, Raskin, & Fazzini, 1990). In a more recent study, researchers found that approximately 14% of respondents reported having experienced aggression from their supervisor during the preceding 12 months (Schat, Frone, & Kelloway, 2006). When the definition of destructive leadership is expanded to include passive forms of destructive leadership, the rates are even higher. Depending on the estimation method used, researchers reported that between 34 and 61% of respondents indicated that their immediate supervisor had demonstrated some form of consistent and frequent destructive leadership behavior during the preceding six months; only 39% of respondents reported no exposure to such behavior over the same period of time (Aasland, Skogstad, Notelaers, Nielsen, & Einarsen, 2010). While this study did consider laissez-faire leadership (i.e., the absence of leadership) and other forms of destructive leadership that may include constructive elements, their findings portray a stark reality. In their latent class cluster analysis, more than 20% of respondents indicated that their supervisor had “humiliated [them] or other employees if [they] fail to live up to his/her standards” either “quite often” or “very often or nearly always.” And in fact, about one-third of respondents indicated that they had been subjected to some type of destructive leadership behavior “often” during the preceding six months (Aasland et al., 2010).

Unsurprisingly, such destructive behavior comes at a cost. Tepper and colleagues reported that abusive supervision costs organizations \$23.8 billion annually, due to employee absenteeism, health care costs, and lost productivity (Tepper, 2007; Tepper, Duffy, Henle, & Lambert, 2006). At the individual level, a number of negative employee outcomes have been associated with destructive leadership as well, including employee counterproductivity (Detert, Treviño, Burris, & Andiappan, 2007), job tension and emotional exhaustion (Harvey, Stoner, Hochwarter, & Kacmar, 2007), resistance behavior (e.g., Bamberger & Bacharach, 2006), deviant work behavior (e.g., Duffy, Ganster, & Pagon, 2002), reduced family well-being (e.g., Hoobler & Brass, 2006), and intention to quit and job (dis)satisfaction (e.g., Tepper, 2000).

The findings from a recent meta-analysis offered further evidence of the harmful, widespread effects associated with destructive leadership. Schyns and Shilling (2013) found support for the hypothesized negative correlations among destructive leadership and positive subordinate outcomes (e.g., attitudes towards leader, well-being, and individual performance). They also found support for the hypothesized positive correlations among destructive leadership and negative subordinate outcomes (e.g., turnover intentions, resistance towards leader, and counterproductive work behaviors). Not surprisingly, the highest correlation ( $\rho = -.57$ ) was between destructive leadership and attitudes towards leader, but interestingly, the next highest correlation was between destructive leadership and followers' counterproductive work behavior (CWB;  $\rho = .38$ ), illustrating that destructive leadership has very real—and potentially multiplicative—consequences in organizations (Schyns & Schilling, 2013).

Taken all together, it is reasonable to conclude that many if not all subordinates are likely to encounter some form of destructive leadership at some point during the course of their work lives. Furthermore, the potential consequences of destructive leadership are severe enough—at the individual, organizational, and societal levels—to warrant further investigation.

**Defining destructive leadership.** One of the challenges associated with destructive leadership (DL) research is that there is a lack of consensus regarding how it should be defined. As is the case in many areas of psychology, different researchers have referred to the same phenomena using different names. Other terms used in this area of research include: *unethical leadership* (the omission of positive behaviors considered to be morally required; Craig & Gustafson, 1998), *leader derailment* (characterized by previously successful individuals who experience some type of involuntary, halted career progression; Hogan & Hogan, 2001; McCall & Lombardo, 1990), *toxic leadership* (characterized by individuals who, via destructive behavior and dysfunctional attributes, inflict serious, lasting harm on people and/or entities they lead; Goldman, 2006; Lipman-Blumen, 2006; Padilla & Mulvey, 2008), *petty tyranny* (lording power over others; Ashforth, 1994), *abusive supervision* (a supervisor's "sustained display of hostile verbal and nonverbal behaviors, excluding physical contact," as perceived by his or her subordinates; Tepper, 2000), *narcissistic leadership* (characterized by leaders who are visionary, grandiose, charismatic, (overly) confident, dominant, and oversensitive to criticism and dissent; Brunell et al., 2008; Campbell & Campbell, 2009; Grijalva, Harms, Newman, Gaddis, & Fraley, 2015; Hoffman et al., 2013; Kets de Vries & Miller, 1985; Maccoby, 2000; Ouimet, 2010; Rosenthal &

Pittinsky, 2006) and, somewhat more controversially, *negligent* or *laissez-faire leadership* (the absence of leadership and/or avoidance of intervention; Aasland et al., 2010).

Furthermore, the term *destructive leadership* itself has been defined in several different ways. One point of contention among researchers involves the issue of intentionality. Some do not consider intentionality to be a definitional feature of DL (e.g., Einarsen et al., 2007; Tepper, 2007), while others have not addressed the issue of intentionality at all (e.g., Ashforth, 1994; Ma, Karri, & Chittipeddi, 2004), and still others consider it a necessary part of the definition (e.g., Craig & Kaiser, 2012). The second point of disagreement is related to the issue of who may be considered potential victims of DL. Some researchers consider only the organization and/or its members (i.e., the in-group) as potential victims of DL, while others also include external stakeholders and/or members of the community. For the purposes of this study, destructive leadership is defined as the “systematic or repeated behavior by a leader, supervisor, or manager that knowingly violates, or inappropriately risks violating, the legitimate interest of the organization, its members, or other legitimate stakeholders by undermining or sabotaging the goals, tasks, resources, motivation, well-being, job satisfaction, or effectiveness of such stakeholders” (Craig & Kaiser, 2012, p. 441). With respect to the issue of intentionality, this definition requires intent on the part of the leader so as to distinguish it from other constructs such as managerial incompetence (Craig & Kaiser, 2012). Kaiser and Craig (2014) argued that DL is a type of CWB. Consistent with accepted definitions of CWB, their definition of DL has an emphasis on intentionality and harm to an organization’s legitimate interests. What differentiates their definition of DL from other forms of CWB, however, is the inclusion of “other legitimate

stakeholders” (e.g., local community members) as potential victims of destructive leadership—an important extension based on the unique responsibilities afforded to those in leadership roles (Kaiser & Craig, 2014).

As an aside, it is worth noting that although I refer to destructive leaders, that is not to say that this is an all-or-nothing phenomenon. There is evidence that destructive leadership can and does exist alongside forms of constructive leadership by the same individual (e.g., Aasland et al., 2010; Rayner & Cooper, 2003).

**Measuring destructive leadership.** Considering both the nature of destructive leadership as well as the varied opinions on how to define it, it is not surprising that measuring it has presented some challenges to researchers.

One such challenge involves the use of measures that (ostensibly) assess destructive leadership. In a study conducted to determine whether destructive leadership, a values-centric construct, and ineffective leadership, a performance-centric construct, are distinct from one another, Mullins (2015) factor analyzed 257 items used in measures of destructive leadership and other related constructs (e.g., abusive supervision, petty tyranny, managerial derailment, and laissez-faire leadership). She found evidence of four factors underlying these items: destructiveness, derailment, prosocial behavior, and task orientation. Overall, her findings suggested that values-centric and performance-centric constructs, while related, are distinct in terms of both their conceptual definitions and their factor structures (Mullins, 2015). This has important implications, as some measures of destructive leadership (e.g., the Destructive Leadership Questionnaire) include both values-centric *and* performance-centric items. If one does not consider intentionality to be a definitional feature of destructive

leadership, this may not be problematic. But if, as in the present study, destructive leadership necessarily involves intent on the part of the leader, the decision about what measures—indeed, what items—are used to assess DL is an important one.

One values-centric construct that is conceptually related to destructive leadership is leader integrity. A common method by which integrity has been measured uses competency ratings provided by subordinates. Kaiser and Hogan (2010) examined how subordinate ratings have been used to assess managers' integrity and argued that this may be problematic. Based on their research, they offered two recommendations. First, due to the very nature of integrity (or lack thereof), managers who are low in integrity are unlikely to rate themselves as such. Therefore, observer ratings should be more likely to pinpoint individuals with low integrity. Further, while managers may not often get caught in a destructive act, those who are likely to engage in such activities tend to exhibit cues consistent with unethical behavior, which are in turn used by subordinates as they form impressions of their manager. As a result, subordinates are likely to be the most useful source of information regarding their manager's integrity, whether or not they have observed an overt violation (Kaiser & Hogan, 2010).

Related to observer ratings, it may be that upper management and subordinates see two sides of the same coin, so to speak. Einarsen and colleagues argued that tyrannical leaders may “humiliate, belittle, and manipulate subordinates in order to ‘get the job done’” (Einarsen et al., 2007, p. 212). Thus, while upper management may see a manager's strong commitment to task completion, subordinates may view it as abusive leadership or bullying

(Einarsen et al., 2007). In any event, it would seem that subordinate ratings—rather than supervisor ratings—may be more likely to accurately capture destructive leadership.

In an effort to address the issues associated with using integrity competencies, Craig and Gustafson (1998) developed the Perceived Leader Integrity Scale (PLIS). This measure distinguishes itself from competency ratings by focusing on the negative end of the integrity continuum. Furthermore, subordinates are asked to estimate the *likelihood* that their leader would engage in such behaviors rather than rating overt unethical behaviors. In essence, the PLIS is uniquely capable of capturing leaders' *reputations* for integrity, i.e., how others think of them (R. Hogan, 2007). Reputation refers to the collective impressions that individuals make on others and reflects one of two ways in which MacKinnon (1944) believed personality should be defined. The other way is by factors internal to individuals that explain their behavior. Hogan (2007) refers to this as their *identity*. Having outlined the merits of assessing leader integrity using measures reflective of their reputation, I will now examine the role that leader identity plays in destructive leadership.

### **Personality and Destructive Leadership**

As discussed, destructive leadership has broad-reaching, negative effects on employees, organizations, and society. Therefore it stands to reason that an empirical examination of the antecedents of destructive leadership could provide a useful foundation for researchers and practitioners aiming to develop interventions to prevent and/or counteract destructive leadership.

In their review of the destructive leadership literature, Padilla et al. (2007) asserted that destructive leadership results from the interaction between personality configurations

and environmental factors. They refer to these factors as the *toxic triangle*: characteristics of leaders, followers, and the environment that are associated with destructive leadership (Padilla et al., 2007). While the current study focuses on leader characteristics, it is worth noting that these factors should be considered within a greater context—both within individuals and with the environment.

That said, the relative weight carried by leader personality should not be discounted. Hogan and Kaiser contend that, “personality predicts leadership—who we are is how we lead” (2005, p. 169). Their conclusion is consistent with the findings of a meta-analysis conducted by Judge et al. (2002), in which the authors examined the relationship between personality and leadership in 78 studies. They found that all five dimensions of the five-factor model of personality (extraversion, agreeableness, conscientiousness, neuroticism, and openness) were correlated with overall leadership, which included both emergence and effectiveness. Specifically, extraversion, conscientiousness, openness to experience, and agreeableness were all positively related to overall leadership; neuroticism was negatively related to it. In a more recent meta-analysis examining the relationship between individual differences and leader effectiveness, Hoffman and colleagues (Hoffman, Woehr, Maldagen-Youngjohn, & Lyons, 2011) reported similar findings: achievement motivation (an indicator of conscientiousness; Judge et al., 2002), energy (extraversion; Judge et al., 2002), dominance (extraversion; Hogan, Curphy, & Hogan, 1994), self-confidence (low neuroticism; Hogan et al., 1994), and creativity (openness; McCrae & Costa, 1997) were all significantly positively correlated with leader effectiveness. Although agreeableness, per se, was not examined in this meta-analysis, they did find a significant positive correlation

between leadership effectiveness and interpersonal skills, which itself is likely related to agreeableness.

Thus far, evidence to support the link between personality and leadership has primarily focused on the bright side of leadership. Kaiser and Hogan (2007) offered an exception to this trend and provided several additional conclusions about leader personality that may be more relevant to destructive leadership. They argued that personality “flaws” shape leader judgment, which may result in poor decision-making, coworker alienation, and team destabilization. Similarly, in their discussion of leader derailment, McCall and Lombardo (1990) contended that leader derailment is caused by both personal flaws and performance shortcomings, noting that personal flaws (e.g., insensitivity to others) were the most frequent cause of derailment. Hogan and Hogan (1997) suggested that personality disorders (DSM-IV; American Psychiatric Association, 1994) offer a useful taxonomy of the most significant determinants of managerial failure and that leaders’ dark side tendencies may be considered extensions of the Big Five. To further complicate the issue, it may be that personality traits are differentially represented across organizational levels. That is to say, certain personality types may be more—or less—likely to exist at higher levels of the organization. In their study of leader characteristics among U.S. Army officers, Mumford et al. (2000) found that while there were seven personality profiles among junior-level officers, the prevalence of these profiles was markedly different among senior-level officers. Specifically, whereas 17% of junior-level officers were classified as “motivated communicators,” 40% of senior-level officers were classified as such. Similarly, just 11% of junior-level officers were classified as “thoughtful innovators” as compared to 26% of

senior-level officers. This is an important finding particularly in light of the argument that the effects of leader personality are magnified as leaders are promoted to higher levels, due to having more discretion in their decisions and greater consequences for their actions (Kaiser & Hogan, 2007).

As evidenced by the preceding section, discussions of the link between personality traits and destructive leadership have been largely theoretical, with relatively few empirical studies examining this link. Of the empirical studies that have been done, researchers have generally used one of two approaches: a variable approach or a pattern (person-oriented) approach.

#### **Variable approach.**

In terms of the relationships among individual differences and destructive leadership, virtually all of the extant research has used a variable approach. In such an approach, the focus is on the variables (personality traits), examined across individuals, and how they relate to certain criteria (e.g., destructive leadership). The goal is to determine which individual difference variables have the strongest relationship with the criterion of interest. This approach may also be used to determine how much unique variance in the criterion can be attributed to a particular variable, or trait, while controlling for other variables. In the following sections, I will summarize the research that has been done examining the relationships among the personality traits of interest and destructive leadership (or related constructs) using a variable approach. It is important to note that of the (relatively little) empirical research that has been done in this area, the generalizability of the findings to

leader populations are somewhat dubious, because many of those studies used samples comprising students or, at best, lower-level employees.

***Narcissism.*** One personality trait that has been consistently linked to destructive leadership is narcissism (e.g., Conger & Kanungo, 1998; R. Hogan et al., 1990; House & Howell, 1992; Kets de Vries & Miller, 1985). Narcissism involves having an exaggerated sense of self-importance, fantasies of unlimited success and power, lack of empathy, exploitation of others, dominance, grandiosity, arrogance, and entitlement (American Psychiatric Association, 2000; Rosenthal & Pittinsky, 2006). Padilla et al. (2007) included narcissism as one of the elements of their “toxic triangle.” Indeed, there is a substantial body of literature suggesting that narcissism is associated with destructive leadership (e.g., Conger, 1990; R. Hogan et al., 1990; House & Howell, 1992; Krasikova, Green, & LeBreton, 2013; Maccoby, 2000; O’Connor, Mumford, Clifton, Gessner, & Connelly, 1995; Rosenthal & Pittinsky, 2006; Sankowsky, 1995). Researchers have demonstrated that narcissistic leaders are self-absorbed and tend to discount or ignore others’ viewpoints and well-being (Conger & Kanungo, 1998). They frequently demand unwavering obedience (O’Connor et al., 1995) and their sense of self-importance and entitlement can lead to abuses of power (Conger, 1990; Maccoby, 2000; Sankowsky, 1995). Krasikova and colleagues (2013) argued that narcissistic leaders are inclined to ignore or even act against the needs of others in the processes of setting goals and influencing subordinates’ actions in attaining those goals. Consistent with this, there is evidence to suggest that narcissism is associated with white collar crime (Blickle, Schlegel, Fassbender, & Klein, 2006), CWB (Judge, LePine, & Rich, 2006; Michel & Bowling, 2013; Penney & Spector, 2002), and even CEO fraud (Rijsenbilt &

Commandeur, 2013). Researchers have also found narcissism to be negatively related to leader integrity (Blair, Hoffman, & Helland, 2008; Mumford, Connelly, Helton, Strange, & Osburn, 2001) and ethical decision making (Antes et al., 2007).

A recent meta-analysis was conducted to examine the relationship between narcissism and leadership. The authors did not find a linear relationship between narcissism and leader effectiveness, but they did report an underlying curvilinear trend, indicating that a moderate degree of narcissism may be optimal, with extreme levels of narcissism likely associated with lower effectiveness ratings (Grijalva et al., 2015). Although this meta-analysis examined the relationship between narcissism and leader effectiveness, it has important implications.

Grijalva and colleagues (2015) argued that, while narcissists are adept at initiating relationships, they are often unable to maintain these relationships over time. As interpersonal influence is one of the two primary channels through which leaders affect organizational performance, the effects of leader narcissism may be significant.

Consistent with the idea that there may be an optimal level of narcissism, Kets de Vries and Miller (1985) argued that everyone displays narcissistic behavior and in fact, a “certain dose of narcissism is necessary to function effectively” (p. 588). Watts and colleagues (2013) examined this idea of the double-edged sword of narcissism in a retrospective study of former U.S. Presidents. They found that grandiose narcissism was correlated with composite performance ratings as well as several objective measures including winning the popular vote and initiating new legislation (Watts et al., 2013). Consistent with the research discussed in the preceding section, narcissism was also correlated with some negative measures, including congressional impeachment resolutions

and unethical behaviors (e.g., stealing, bending or breaking rules, cheating on taxes, or abusing power; Watts et al., 2013).

Although researchers increasingly argue for both negative and positive aspects of narcissism, consensus has yet to be reached regarding its underlying dimensionality, particularly as measured by the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). A number of researchers have attempted to validate the factor structure of this measure, and have argued for the presence of two (Corry, Merritt, Mrug, & Pamp, 2008; Kubarych, Deary, & Austin, 2004), three (Ackerman et al., 2011; Kubarych et al., 2004), four (Emmons, 1984, 1987), or even seven factors, as suggested by Raskin and Terry (1988). Some researchers argue that, while the NPI may measure several lower order factors, it does indeed measure a single higher-order, general narcissism factor (e.g., Emmons, 1987; Kubarych et al., 2004; Watson & Biderman, 1993). Consistent with this, other management researchers have treated narcissism as unidimensional in their research (Brunell et al., 2008; Hoffman et al., 2013; Judge et al., 2006). Thus, although it is often theoretically conceptualized as multidimensional, narcissism is frequently treated as a unidimensional trait in organizational research. Therefore, narcissism is treated as unidimensional in the current study.

In some instances, this distinction may not necessarily be problematic—or even evident—if different aspects of narcissism all relate similarly to the criterion of interest. However, as previously noted, narcissism appears to have both a bright and a dark side (Campbell & Campbell, 2009; Judge, Piccolo, & Kosalka, 2009; Paulhus, 1998). Some aspects, like high self-esteem, are generally considered to be adaptive, while others, such as

entitlement, tend to be more maladaptive (e.g., Paunonen, Lönqvist, Verkasalo, Leikas, & Nissinen, 2006). Moreover, the extent to which certain narcissistic characteristics are perceived as adaptive may depend on the focal individual's position. That is, some narcissistic characteristics, such as risk-taking and grandiosity, that are considered maladaptive in the general population may be more likely to be perceived as neutral or even commendable in leaders (Watts et al., 2013).

While there is clearly evidence for the link between narcissism and destructive leadership (or similar constructs), much of the work in this area has been theoretical. Of the empirical research that has been done, very little of it has been both prospective and conducted with leader participants. One exception to this is a study conducted by Blair and colleagues (2008). Based on multisource ratings provided for 154 managers, the researchers found that narcissism was negatively related to supervisory ratings of integrity. Interestingly, narcissism was found to be unrelated to subordinate ratings of integrity. However, it is worth noting that integrity was measured using five items on an evaluation scale, which were designed to examine the degree to which the leader engaged in certain behaviors (e.g., "Does not misrepresent him/herself for personal gain"), according to the rater. As previously discussed, this type of measure may not provide a comprehensive, accurate picture of destructive leadership, primarily because overt and observable counterproductive behavior has a very low base rate, and because most violations are only discovered after the fact (Kaiser & Hogan, 2010).

More recently, Hoffman and colleagues (2013) conducted a study of 68 managers and their subordinates to examine the relationships among narcissism, ethical context, and ethical

leadership using the 10-item Ethical Leadership Scale (Brown, Treviño, & Harrison, 2005). There was no main effect of narcissism on subordinate ratings of ethical leadership. However, they did find an interaction effect between narcissism and ethical organizational context, such that narcissism was negatively related to ethical leadership in highly ethical contexts, but not related to ethical leadership in low ethical contexts (Hoffman et al., 2013). As with the Blair et al. (2008) study, the measure of ethical leadership used examined the extent to which leaders engaged in a particular behavior (e.g., “listens to what employees have to say”) according to subordinates, which may not offer a complete picture of destructive behaviors. To address this in the present study, the measure of DL being used asks the raters to indicate the likelihood that their manager would engage in a particular behavior, if given the opportunity.

***Machiavellianism.*** Machiavellianism is a personality trait named after Niccolò Machiavelli, who wrote *The Prince* in the 16<sup>th</sup> century. Machiavellianism is defined as “cunning, manipulation and the use of any means necessary to achieve one’s political ends” (Judge et al., 2009, p. 867). Leaders high in Machiavellianism tend to seek to exert control over their followers, be politically oriented, and lack affect in interpersonal relationships (Deluga, 2001; McHoskey, 1999). Because they also tend to be highly capable of influencing others, these leaders can typically convince others to do things for the leader’s own benefit, thus demonstrating clear abuses of power. For our purposes, the most problematic aspect of Machiavellianism may be that these leaders are unlikely to adhere to organizational procedures, or ethical and moral standards, in favor of behaving in ways to maximize their own power (Judge et al., 2009). Not only are these leaders likely to pursue

selfish goals—even if they cause harm to the organization or its members—but they are also prone to using harmful methods of influence to coerce subordinates to achieve such goals (Krasikova et al., 2013).

***Extraversion.*** Extraversion is one dimension of the five-factor model (FFM) of personality and represents the degree to which an individual is sociable, assertive, active, and energetic (Judge et al., 2002). Excessive extraversion may be characterized by behavior that is bold, aggressive, and grandiose (Judge et al., 2009). These individuals prefer the spotlight and are likely to give themselves more credit than they deserve (R. Hogan & Hogan, 2001). Leaders who exhibit high levels of extraversion may be less likely to seek input from colleagues, which may result in alienation (Judge et al., 2009). Further, because extraverts typically have a high need for stimulation, they are more likely to exhibit transient enthusiasm for projects, people, and ideas (Beauducel, Brocke, & Leue, 2006). This may result in hasty or ill-advised decision-making (e.g., in aggressive pursuit of acquisitions/investments), and later, change in course if the returns on their investments do not measure up to their bold and aggressive expectations (Judge et al., 2009). Despite these theoretical links, empirical research has yet to confirm a relationship between extraversion and destructive leadership. However, there has been research demonstrating a negative relationship between extraversion and CWB (Sackett, Berry, Wiemann, & Laczko, 2006; Salgado, 2002), and given the conceptual overlap between CWB and DL, it is reasonable to believe that extraversion may also be related to DL.

***Openness to experience.*** Another dimension of the FFM, openness to experience reflects the degree to which individuals are imaginative, unconventional, and autonomous

(Judge et al., 2002). Individuals who score high on measures of openness have been characterized as nonconforming, priding themselves on their anti-authoritarian and anti-establishment attitudes (McCrae, 1996). High openness leaders tend to be more willing to employ almost any strategy or technique if they believe it increases the likelihood of organizational success (Judge et al., 2009). Leaders high in openness may be easily distracted by new, unconventional ideas. Consequently they may be more likely to challenge traditional, deeply held organizational values (Judge et al., 2009). Interestingly, in his meta-analysis examining the relationships among the Big Five factors of personality and CWB, Salgado (2002) reported a negative relationship between openness and turnover, an indicator of CWB.

***Neuroticism.*** A third dimension of the FFM, neuroticism (low emotional stability) represents the tendency to experience negative emotions (e.g., anxiety, insecurity, anger; Judge et al., 2002). Leaders low in neuroticism tend to be seen as reserved, laid-back, even leisurely (Goldberg, 1999). Given that the interpersonal component of leadership is inherently an emotional process (Dasborough & Ashkanasy, 2002), genuine emotional displays are likely to increase a leader's credibility among his followers (Kouzes & Posner, 2003). Low levels of neuroticism—marked by steady, even-keeled composure—may be interpreted as apathy. Leaders low in neuroticism may suppress their true evaluations of their employees and offer minimal feedback (Judge et al., 2009). In support of a potential link between neuroticism and destructive leadership, researchers have reported a negative relationship between emotional stability (low neuroticism) and CWB (Sackett et al., 2006; Salgado, 2002). And in their study examining antecedents of ethical leadership, Kalshoven

and colleagues found that emotional stability was positively related to subordinate ratings of ethical leadership after controlling for leader-member exchange (LMX) ratings (Kalshoven, Den Hartog, & De Hoogh, 2011).

***Conscientiousness.*** Another dimension of the FFM, conscientiousness is characterized by individuals' tendency to be efficient, detail-oriented, deliberate, and demonstrate a strong sense of direction in pursuit of their goals (Costa & McCrae, 1992). At high levels of conscientiousness, individuals may be overly cautious and analytical, and as a result, may be less likely to incorporate innovative or risky strategies (R. Hogan & Hogan, 2001). Leaders who are very high in conscientiousness may also be perfectionists and, as a result, overly critical of subordinates' performance (R. Hogan & Hogan, 2001). In addition to research demonstrating a link between conscientiousness and subordinate ratings of ethical leadership (Kalshoven et al., 2011; Walumbwa & Schaubroeck, 2009), researchers have also reported negative correlations between conscientiousness and both CWB (Sackett et al., 2006; Salgado, 2002) and organizational deviance (Berry, Ones, & Sackett, 2007).

***Agreeableness.*** Agreeableness, the final dimension of the FFM, is marked by modesty, altruism, and trustworthiness (Costa & McCrae, 1992). Leaders who are high in agreeableness tend to avoid interpersonal conflict (Graziano, Jensen-Campbell, & Hair, 1996) and may be overly sensitive to the needs of others around them. This may lead to avoidance in difficult decision-making situations. Highly agreeable leaders are more likely to demonstrate leniency in their performance ratings (Bernardin, Cooke, & Villanova, 2000). As discussed in regards to integrity assessment issues, such appraisals likely skew rating distributions, such that a disproportionate number of employees receive high performance

ratings, even if not warranted. There is evidence that leader agreeableness is positively related to subordinate ratings of ethical leadership (Kalshoven et al., 2011; Walumbwa & Schaubroeck, 2009). Furthermore, researchers also found negative relationships between agreeableness and both CWB (Sackett et al., 2006; Salgado, 2002) and interpersonal deviance (Berry et al., 2007).

As can be seen from the extant literature, the variable approach is useful in that it allows researchers to examine a trait and determine how and to what degree it is related to the criterion. On the other hand, the variable approach is also limited in that an individual is no more than a sum of variables. As such, the interactions among traits are not taken into account at the individual level (Magnusson, 2000). Even if there are interactions that hold for an entire sample, most leadership studies—by virtue of their smaller sample sizes—are unlikely to have sufficient power to detect these interactions. In her variable-oriented approach to examining potential personality predictors of destructive leadership, Olls (2014) collected data from 242 subordinates who provided destructive leadership ratings on 135 target managers. The managers, in turn, completed self-report measures of extraversion, openness to experience, emotional stability, conscientiousness, agreeableness, narcissism, and Machiavellianism. She examined whether linear or quadratic relationships existed among the personality traits and perceptions of destructive leadership. Olls found that very low and very high levels of agreeableness were associated with greater perceptions of destructive leadership. She also found that both low and high levels of emotional stability were associated with lower interpersonal harshness ratings. Unfortunately, given the size of

the sample and the power needed to detect more complex relationships, it was not possible to test interactions using a variable-oriented approach.

In contrast to a variable-oriented approach, a pattern- or person-oriented approach categorizes individuals based on their pattern of traits (e.g., high conscientiousness, low extraversion, high agreeableness, moderate neuroticism, and low openness). Thus, a pattern approach is able to identify actual trait patterns that exist among the sample and can then assess the extent to which they are related to criterion variables. Proponents of the pattern approach argue that individual differences (variables) are most meaningful when they are part of a pattern or configuration rather than examined in isolation (Magnusson, 1995). The pattern approach assumes that each individual continually interacts with the environment, but also that each individual maintains a fairly stable, consistent pattern of individual differences. As such, a pattern approach seems to more adequately reflect the configural nature of personality itself. Furthermore, because leadership occurs in a dynamic, social context, we should be able to get a more complete picture of leadership by using a pattern approach to complement research done using a variable approach (Nystedt, 1997). The following section provides a more in-depth overview of the pattern approach, as well as a summary of the research that has been conducted in this area.

### **Pattern approach.**

A pattern approach takes a holistic, interactionist view of personality. This approach involves categorizing individuals into homogenous groups, or clusters, based on the pattern of values for the variables under consideration. The clusters of individuals, rather than the variables themselves, then become the primary focus of the study. With a pattern approach,

the underlying assumption is that an individual is more than the sum of his or her traits. Taken further, this implies that one trait, for example narcissism, is less meaningful on its own than when it is examined in the context of other traits occurring in an individual (Bergman, 2000; Foti & Hauenstein, 2007).

In addition to these theoretical differences, a pattern approach has several practical advantages over a traditional variable-based approach (e.g., multiple regression). First, a pattern approach allows for the identification of interactions that only hold for subsets of the sample, whereas traditional regression-based methods will only detect interactions if they hold across the entire sample. Related to this point, a pattern approach can examine configurations defined by larger numbers of variables than would be possible to test using regression without very large sample sizes.

Thus far, there has been virtually no research examining the relationships among individual differences and destructive leadership using a pattern approach. Of the leadership research that has been conducted using a pattern approach, nearly all of it has examined the relationships among individual differences and leadership effectiveness and/or emergence. McClelland and Boyatzis (1982) found that a profile including moderate to high need for power, low need for affiliation, and high activity inhibition was related to subsequent managerial promotion rates. Smith and Foti (1998) found that a profile including high intelligence, high dominance, and high general self-efficacy was related to leader emergence. Consistent with these findings, Foti and Hauenstein (2007) reported that a profile including high intelligence, high dominance, high general self-efficacy, and high self-monitoring was related to promotions, leader emergence, and supervisor-rated leader effectiveness. In a

study of 821 junior-level U.S. Army officers, Mumford et al. (Mumford et al., 2000) determined that there were seven types of leader characteristics among them. Of these, three of these types were also found among 426 senior-level officers, demonstrating the patterns of characteristics that were more prevalent among senior leaders.

All of the aforementioned pattern-oriented studies focused on the bright side of leaders and/or leadership. In fact, very few “dark side” studies have used a pattern approach. In one such exception, Torregiante (2005) examined destructive trait patterns (using the Hogan Development Survey, HDS; R. Hogan & Hogan, 1997) and leadership performance among 295 executives to determine what personality trait patterns existed among them. She found that one personality profile (unpredictable, critical, overreacts to pressure, prefers to be alone, not afraid of failure, self-confident, suspicious of authority, sensitive to criticism, resistant to change, detail-oriented, well-organized, decisive, and willing to take risks) was associated with the lowest performance ratings. Based on her findings, she argued that the pattern of the HDS scores appeared to play a greater role in predicting leadership performance than did the magnitude of the HDS scores (Torregiante, 2005). While this study did examine dark side traits, the criteria used were measures of constructive, rather than destructive, leadership.

Perhaps the most relevant pattern-oriented research for the purposes of the present study was conducted by Gustafson and Ritzer (1995). In their study, they provided evidence for the existence of an aberrant self-promotion (ASP) pattern comprising high self-esteem, high narcissism, high psychopathy, low socialization, and low social desirability. They found that ASP individuals were more likely than non-ASPs to endorse having participated

in illegal activities (e.g., theft, vandalism, intoxicated driving, and experimentation with explosives). ASPs had also received more parking tickets, been issued more university judicial reprimands, and were more likely to have been arrested as compared to non-ASPs. The researchers argued that if hired, ASPs were also likely to intimidate subordinates or colleagues, lie, misrepresent others' ideas as their own, and disobey ethical or legal procedures (Gustafson & Ritzer, 1995).

To summarize, while there has been a recent increase in research examining individual differences associated with destructive leadership (or similar constructs), much of it has been either theoretical or retrospective. Of the prospective empirical research, a considerable proportion of those studies used non-employee (i.e., student) samples or lower-level employee samples. And of the empirical research that has been conducted using organizational leaders, virtually all of it has used a variable approach. Such research has certainly provided useful information regarding the extent to which individual differences are related to destructive leadership, but has also been somewhat limited in that the individual becomes abstracted in the analysis and interpretation, and does not adequately capture the configural nature of personality. Thus it would be valuable to examine these relationships from a different perspective—by examining the extent to which certain patterns of individual differences predict destructive leadership.

Despite the advantages of using a pattern approach to study personality, to the best of the author's knowledge, there has been no such research published to date that examines personality predictors of destructive leadership. Whereas Gustafson and Ritzer (1995) used a pattern approach to assess personality predictors of engaging in illicit activities, their

research was conducted using college students and focused on characteristics (e.g., psychopathy) not typical of a healthy population. By contrast, the current study seeks to utilize a person-centered approach to examine personality patterns (comprising subclinical traits) and the extent to which they are related to destructive leadership using a sample of organizational leaders.

### **The Current Study**

Given the potential for harm resulting from destructive leadership, and the existing gaps in the extant literature, the purpose of the present study is to examine leader personality patterns and determine how different personality profiles are related to subordinate perceptions of destructive leadership. The aim of the first two research questions is to gain a better understanding of the characteristic patterns of personality traits that actually exist among leaders and to estimate the frequency with which they occur.

**Research question 1.** How many distinct personality trait patterns (i.e., profiles) exist among leaders?

**Research question 2.** What is the nature of each profile and what proportion of the sample is classified under each?

As previously discussed, there is reason to believe that organizational level may play a role in the prevalence of personality profiles. Kaiser and Hogan (2007) argued that the effects of leader personality are magnified as leaders are promoted, due to having more discretion in their decisions and greater consequences for their actions. This is also consistent with upper echelon theory, which states that executives think and act differently compared to leaders at lower levels of the organization (Hambrick & Mason, 1984; Katz &

Kahn, 1978). In order to address this issue, the aim of the third research question is to determine the prevalence of each personality profile at several different organizational levels.

**Research question 3.** Are leader profiles differentially represented at three different organizational levels (first-line supervisor, middle manager, and executive)?

The aim of the fourth research question is to externally validate the clusters (profiles) by assessing the extent to which leader personality profiles are associated with subordinate perceptions of destructive leadership. As previously discussed, subordinate perceptions are likely to be the most accurate source of destructive leadership ratings. Due to the very nature of destructive leadership (i.e., deception, manipulation), truly destructive leaders are unlikely to rate themselves as such. Furthermore, leaders' peers and their own supervisors appear to be less likely to witness behavior consistent with destructive leadership simply by virtue of the fact that leaders are likely to behave better in the company of their peers and superiors. Subordinates, however, are not only more likely to witness a leader's destructive behavior, they are often the ones who experience it firsthand.

**Research question 4.** Do differences exist among personality profiles on ratings of subordinate perceptions of destructive leadership?

## **Method**

### **Participants**

The current study used archival data that were collected from individuals employed in hierarchically structured organizations. Olls (2014) collected responses from 242 subordinate employees (71% female) reporting to 135 leaders (42% female) for at least three months, either currently (96%) or within the preceding three years (4%). Because the

majority of potential leader participants were contacted using publically available information (i.e., name and e-mail address), most of the participants likely represented non-profit, state and/or federally funded organizations. The majority of the leaders contacted were employed at one of several, large southeastern American universities, with the remaining participants recruited from smaller organizations located throughout the southeast. In addition to education, a variety of industries were represented including: federal and state government, healthcare, information technology, professional services (e.g., law, medicine, consulting), financial services and banking, pharmaceuticals, and non-profit organizations. Leader participants reported working for organizations ranging in size from fewer than 100 employees (63%), to greater than 5000 employees (13%). Leader participants were nearly evenly divided across three organizational levels: first line supervisors (32.6%), middle managers (31.1%), and executives (31.9%); 3.7% of leaders considered themselves individual contributors<sup>1</sup>.

In order to be included in Olls's (2014) analyses, subordinates must have directly reported to their leader for at least three months in order to ensure that there was sufficient time to interact with and form an impression of the leader. Of the subordinate participants, nearly all (94%) worked with their manager full time. Of these, 96% reported directly to their managers, and 4% reported indirectly (i.e., through an intermediate manager). The median length of time the subordinates had reported to the focal manager was 36 months. As participation only involved completing a brief survey, neither leader nor subordinate participants were offered remuneration for their participation.

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<sup>1</sup> These individual contributors are included in the leader group because they reported having at least one current subordinate with whom they worked. Their subordinates, who also participated in the study, independently confirmed this relationship.

## **Procedure**

Contact information was obtained for 1,050 potential leader participants via the researcher's personal contacts as well as organizations' websites. These individuals were contacted via e-mail and asked if they would be willing to complete an online survey as part of a research study. If they agreed, they were asked to complete personality measures on narcissism, Machiavellianism, extraversion, openness to experience, neuroticism, conscientiousness, and agreeableness, in addition to answering several demographic questions. Leader participants were also asked to provide contact information for up to five of their current direct report subordinates (Olls, 2014). The named subordinates were subsequently contacted by e-mail, informed that their manager had participated in a research study, and asked if they would be willing to complete a separate online survey as part of this study.

Subordinate participants were asked to complete the short version of the Perceived Leader Integrity Scale and a shortened version of the Destructive Leadership Questionnaire (DLQ; Shaw, Erickson, & Harvey, 2011). Subordinates were also asked to provide some demographic information and to answer several questions about their relationship to the focal manager and their organizational tenure (Olls, 2014).

In order for leader-subordinate data to be included in the analyses, at least one direct report subordinate must have completed the survey for each target leader. If more than one participated, their ratings were averaged together resulting in a single, subordinate rating for each focal manager.

## Measures

**Narcissistic personality inventory.** Leader narcissism was assessed using a self-report measure consisting of items from the Narcissistic Personality Inventory (NPI; Kubarych et al., 2004; Raskin & Terry, 1988). Consistent with Galvin, Waldman, and Balthazard (2010)'s use of this measure in a sample of senior leaders, items from the vanity subscale (e.g., "I like to show off my body" and "I like to start new fads and fashions") were not included as they were considered to be more relevant among college student samples (in which they are most frequently used) than among leader samples. The modified version contained 34 items (see Appendix A). Each item consisted of a pair of statements: one considered narcissistic, and the other non-narcissistic. Each item consists of a pair of statements: one considered narcissistic, and the other non-narcissistic. An example is:

- A. I am not good at influencing people.
- B. I have a natural talent for influencing people.

In this case, "B" is considered the narcissistic choice. One point was added to an individual's NPI score for each narcissistic statement endorsed; thus an individual's NPI score represents the proportion of narcissistic items endorsed. Higher scores indicate higher levels of narcissism.

**Machiavellianism IV scale.** The 20-item, self-report Machiavellianism IV Scale (Mach IV; Christie & Geis, 1970) was used to assess Machiavellianism in leaders. The scale was developed in congruence with statements from Machiavelli's *The Prince* and *Discourses* (Christie, 1970). Sample items include, "Never tell anyone the real reason you did something unless it is useful to do so," "The best way to handle people is to tell them what

they want to hear,” and “There is no excuse for lying to someone” (reverse scored). Items were rated using a seven-point Likert type response format ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). Of the 20 Mach-IV items collected, two items were removed from subsequent analyses in order to achieve a coefficient alpha greater than 0.70. These two items were: “One should take action only when sure it is morally right” (reverse coded) and “It is possible to be good in all respects” (reverse coded). The final, 18-item measure is provided in Appendix B.

**Big Five personality inventory.** The Big Five factors of personality (extraversion, openness to experience, neuroticism, conscientiousness, and agreeableness) were assessed using the 20-item Mini-IPIP scales (Donnellan, Oswald, Baird, & Lucas, 2006), which is a short version of the 50-item International Personality Item Pool – Five Factor Model measure (Goldberg, 1999). Each of the five factors was assessed using four items, for a total of 20 self-report items (see Appendix C). Items were rated using a five-point Likert type response format ranging from 1 (“very inaccurate”) to 5 (“very accurate”).

**Extraversion.** The extraversion scale was used to assess the extent to which individuals are sociable, assertive and active. Leader participants were asked to rate the extent to which each item described them. Sample items include, “Talk to a lot of different people at parties,” and “Keep in the background” (reverse scored).

**Openness to experience.** The openness scale was used to assess the extent to which individuals are imaginative, autonomous, and nonconformist. Leader participants were asked to rate the extent to which each item described them. Sample items include, “Have a vivid imagination,” and “Am not interested in abstract ideas” (reverse scored).

**Neuroticism.** The neuroticism scale was used to assess the extent to which individuals are anxious, unstable, stressed, and impulsive. Leader participants were asked to rate the extent to which each item described them. Sample items include, “Am relaxed most of the time,” (reverse scored) and “Get upset easily.”

**Conscientiousness.** The conscientiousness scale was used to assess the extent to which individuals are orderly, attentive to details, and deliberate in their actions. Leader participants were asked to rate the extent to which each item described them. Sample items include, “Get chores done right away,” and “Make a mess of things” (reverse scored).

**Agreeableness.** The agreeableness scale was used to assess the extent to which individuals are modest, empathetic, and concerned for others. Leader participants were asked to rate the extent to which each item described them. Sample items include, “Sympathize with others’ feelings,” and “Am not really interested in others” (reverse scored).

**Perceived leader integrity scale.** Subordinates’ impressions of their leaders’ integrity were assessed using the short version of Craig and Gustafson’s (1998) Perceived Leader Integrity Scale (PLIS). The full version of the PLIS contains 31 items reflecting both character (e.g., “is vindictive”) and bad conduct (e.g., “always gets even”). Most of the items ask observers (i.e., subordinates) to rate the likelihood that their leaders would engage in a particular unethical behavior if given an opportunity (Kaiser & Hogan, 2010). The PLIS is based on the premise that destructive leadership is not just the absence of high integrity behavior but involves “actively devious, manipulative, and dishonest behavior” (Craig & Kaiser, 2012, p. 442). Subordinate participants completed a short (eight-item) version of the PLIS (see Appendix D). They rated their leader on a four-point Likert type response format

representing the degree to which each item described the leader, ranging from 0 (“not at all”) to 3 (“well”). PLIS scores were calculated for each subordinate by averaging across those eight items. Higher PLIS scores indicate higher levels of destructive leadership (i.e., lower perceived integrity). For managers with two or more subordinate raters, the mean PLIS score across all subordinates for that manager was used. In order to determine whether aggregation to the leader level was appropriate, interrater agreement was calculated for all PLIS items. Agreement was calculated using  $r^*_{wg(j)}$  (Lindell & Brandt, 1999; Lindell, Brandt, & Whitney, 1999), which is similar to James and colleagues’  $r_{wg(j)}$  index (James, Demaree, & Wolf, 1984, 1993), but is more appropriate for bimodal distributions, which can occur when a manager’s subordinates cluster into an “in-group” and an “out-group” (characterized by high or low levels of trust, interaction, support, and loyalty, respectively; Dienesch & Liden, 1986). Values of  $r^*_{wg(j)}$  ranged from -0.66 to 1.00, with a median value of 0.93. This is considered very strong agreement among raters (LeBreton & Senter, 2008). Therefore, aggregation to the leader level was deemed to be appropriate.

**Destructive leadership questionnaire.** The Destructive Leadership Questionnaire (DLQ; Shaw et al., 2011) was developed in congruence with Einarsen et al.’s (2007) conceptualization of destructive leadership, defined as the “systematic and repeated behavior by a leader, supervisor, or manager that violates the legitimate interest of the organization by undermining and/or sabotaging the organization’s goals, tasks, resources, and effectiveness and/or the motivation, well-being or job satisfaction of subordinates” (p. 208).

Like the PLIS, the DLQ defines destructive leadership in terms of subordinate perceptions. Unlike the PLIS, the DLQ contains a number of items that are more

performance-centric in nature rather than values-centric (Mullins, 2015). In Olls's (2014) study, subordinates rated their managers on a 20-item version of the DLQ. These 20 items were based on the results of an exploratory factor analysis conducted to reduce the number of items from the original 127-item measure while still retaining a representative sample of items from the full DLQ. Each of the 20 retained items loaded onto one of four factors: managerial ineffectiveness, interpersonal harshness, laissez-faire management, or indecisiveness/inaction.

Mullins (2015) has since reported that more than half of the original 127 DLQ items load more strongly onto performance-centric factors than on values-centric factors, the latter of which is more consistent with how destructive leadership is being defined in the current study. Therefore, the performance-centric and values-centric items from that study were compared to the 20 items used in Olls's (2014) study. The 15 items that made up three subscales (managerial ineffectiveness, laissez-faire management, and indecisiveness/inaction) used in Olls's study were items that loaded onto one of Mullins's performance-centric factors. The remaining five items (all on Olls's interpersonal harshness subscale) loaded onto Mullins's active destructive factor (one of Mullins's two values-centric factors).

For the present study, the five DLQ items from Olls's (2014) interpersonal harshness (IH) subscale—that also loaded onto Mullins's active destructive factor—were used as a measure of destructive leadership (along with the PLIS). Based on the results from both Olls's (2014) and Mullins's (2015) factor analyses, there is strong evidence to suggest that

the remaining 15 items are more consistent with ineffective leadership rather than destructive leadership as it is defined in the present study; therefore these 15 items were not included.

DLQ items assess both supervisors' trait-like personal characteristics and their behavior. Some examples of DLQ:IH items are: "My boss places brutal pressure on subordinates" and "my boss is a tyrant." The five items used for the DLQ:IH are provided in Appendix E. Consistent with the original DLQ measure, subordinates rated their leader using a six-point Likert type response format representing the degree to which they agreed with each item, ranging from 1 ("strongly disagree") to 6 ("strongly agree"). Alternatively, participants could select "Don't Know" if they felt unable to rate their manager on a particular item.<sup>2</sup>

The DLQ:IH scores were obtained for each subordinate by averaging across those five items. Higher DLQ:IH scores indicate higher levels of destructive leadership. For single-rater/manager dyads, the DLQ:IH score calculated for the subordinate was used for that manager. For managers with more than one subordinate participating in the study, DLQ:IH scores were averaged across subordinates for that manager. In order to determine whether aggregation to the leader level was appropriate, interrater agreement was calculated for the DLQ:IH items using  $r^*_{wg(j)}$  (Lindell & Brandt, 1999; Lindell et al., 1999). Values of  $r^*_{wg(j)}$  ranged from -1.23 to 1.00, with a median value of 0.85. This is considered strong agreement among raters (LeBreton & Senter, 2008). Therefore, aggregation to the leader level was deemed to be appropriate.

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<sup>2</sup> These responses were considered missing data.

## Results

### Personality Items Factor Analysis

A combination of exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) was performed to examine the factor structure of the personality items for this sample of leaders. EFA was conducted with all personality items using principal axis extraction and Harris-Kaiser oblique rotation. The goal of the factor analyses was to determine whether a seven-factor solution corresponding to the *a priori* scales (i.e., extraversion, openness, neuroticism, conscientiousness, agreeableness, narcissism, and Machiavellianism) would adequately fit the data. Based on examination of the eigenvalue scree plot and interpretability of the rotated factor structure, a four-factor empirically derived (ED) solution was deemed to be most appropriate. Although this solution only accounted for approximately 35% of the common variance, solutions containing more factors—and accounting for more variance—included factors with an inadequate number of items per factor (i.e., one or two) and were not readily interpretable. The highest-loading, non-overlapping items that were not significantly cross-loaded on other factors were selected for each of these four factors. A follow-up CFA was conducted using just these selected items. The CFA indicated adequate fit of the four-factor model,  $\chi^2(50) = 72.729, p = .020$ ; CFI=.838; WRMR=.924; RMSEA=.058. Although the RMSEA is not below .05, which is considered excellent fit, MacCallum, Browne, and Sugawara (1996) suggested that a RMSEA value less than .08 may be considered mediocre fit.

**Empirically derived factors.** Based on an examination of item content, the four ED factors were labeled Egocentrism/Narcissism, Power/Influence, Conscientiousness, and

Agreeableness. The Egocentrism/Narcissism factor<sup>3</sup> comprised nine items: all four extraversion items and five NPI items. Examples of items loading on the Egocentrism/Narcissism factor were: “I really like to be the center of attention,” “I am the life of the party,” and “I know I am good because everyone keeps telling me so.” The Power/Influence factor<sup>4</sup> comprised seven items: four Mach-IV items and three NPI items. Examples of items loading on the Power/Influence factor were: “I am a born leader,” “Never tell anyone the real reason you did something unless it is useful to do so,” and “I am an extraordinary person.” The Conscientiousness factor ( $\alpha = 0.68$ ) comprised all four of the mini-IPIP conscientiousness items. Examples of these items were: “Get chores done right away,” “Like order,” and “Often forget to put things back in their proper place” (reverse coded). The Agreeableness factor ( $\alpha = 0.66$ ) comprised three of the four mini-IPIP agreeableness items. These items were: “Feel others’ emotions,” “Sympathize with others’ feelings,” and “Am not interested in other people’s problems” (reverse coded). The items for each of these four empirically derived factors are provided in Appendix F.

Because the ED solution did not include any items from the IPIP openness or neuroticism scales, a decision was made to perform subsequent analyses twice: once using the four empirically derived personality factors (Egocentrism/Narcissism, Power/Influence, Conscientiousness, and Agreeableness), and a second time using the seven *a priori* personality factors (Extraversion, Openness, Neuroticism, Conscientiousness, Agreeableness, Narcissism, and Machiavellianism).

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<sup>3</sup> Because the extraversion and NPI items used to assess the EN dimension were originally on different metrics and had to be standardized prior to combining them, coefficient alpha could not be computed.

<sup>4</sup> Because the Mach-IV and NPI items used to assess the PI dimension were originally on different metrics and had to be standardized prior to combining them, coefficient alpha could not be computed.

For the ED dimensions, subscale scores were computed for use in subsequent analyses. For the Agreeableness and Conscientiousness dimensions, all of the items were on the same metric and therefore the subscale score was simply the mean of the items assessing that dimension. The Egocentrism/Narcissism dimension included both NPI and extraversion items, which were not on the same metric. Therefore, sub-dimension scores were first calculated. The mean of the five NPI items was computed for each leader and then converted to a standard ( $z$ ) score. Similarly, the mean of the four extraversion items was computed for each leader and then converted to a standard ( $z$ ) score. Finally, the mean of the standardized NPI sub-dimension score and the standardized extraversion sub-dimension score was computed to obtain the Egocentrism/Narcissism dimension score for each leader. Similarly, the Power/Influence dimension included four Mach-IV items and three NPI items, which were not on the same metric. Therefore, sub-dimension scores were first calculated. The mean of the four Mach-IV items was computed for each leader and then converted to a standard ( $z$ ) score. Likewise, the mean of the three NPI items was computed for each leader and then converted to a standard ( $z$ ) score. Finally, the mean of the standardized Mach-IV sub-dimension score and the standardized NPI sub-dimension score was computed to obtain the Power/Influence dimension score for each leader. These empirically derived (ED) personality dimension scores were used in both the cluster analysis and the latent profile analysis.

***A priori factors.*** For the seven *a priori* personality factors, four items were used to assess each of the following five personality factors in leaders: extraversion (EXT), openness (OPN), neuroticism (NEU), conscientiousness (CON), and agreeableness (AGR). Thirty-

four NPI items were used to assess leader narcissism (NARC). Eighteen Mach-IV items were used to assess leader Machiavellianism (MACH).

Confirmatory factor analyses (CFA) were performed to ascertain that the seven *a priori* factors could each be considered unidimensional. A one-factor CFA of the 18 Mach-IV items (randomly assigned to four parcels) indicated adequate fit,  $\chi^2(2) = 3.001, p > .05$ ; CFI = .987; SRMR = .025; RMSEA = .061. A one-factor CFA of the 34 NPI items (randomly assigned to eight parcels) indicated adequate fit, after allowing the error terms for parcel 1 and parcel 6 to correlate,  $\chi^2(19) = 25.837, p > .05$ ; CFI = .975; SRMR = .049; RMSEA = .052. A five-factor CFA of the 20 IPIP items indicated adequate fit, assuming agreeableness items 1 and 2 (“Sympathize with others’ feelings” and “Feel others’ emotions”) and items 3 and 4 (“Am not really interested in others” (reverse) and “Am not interested in other people’s problems” (reverse)) had correlated errors,  $\chi^2(158) = 257.704, p < .001$ ; CFI = .811; SRMR = .084; RMSEA = .068. Thus, each of the seven *a priori* personality factors could be considered unidimensional when examined in isolation from the others. Subscale scores were calculated for each of these *a priori* (AP) factors for each leader by computing the mean of all items associated with each factor after reverse coding items as appropriate. These AP factor scores were used in both the cluster analysis and the latent profile analysis.

Means, standard deviations, and correlations among the measured variables are provided in Table 1. Cronbach’s coefficient alpha internal consistency estimates are included along the diagonal.

Table 1.  
*Summary of Intercorrelations, Means, and Standard Deviations*

Measure	1	2	3	4	5	6	7	8	9
1. Extraversion	(.77)	.18*	-.25**	.08	.12	-.12	.50**	.02	.07
2. Openness		(.62)	-.08	-.02	.19*	-.02	.19*	.03	.02
3. Neuroticism			(.65)	-.10	-.06	.32**	-.05	.07	.09
4. Conscientiousness				(.68)	.23*	-.20*	.17*	.10	-.09
5. Agreeableness					(.70)	-.24**	-.05	-.07	-.10
6. Machiavellianism						(.72)	.16	.05	.06
7. Narcissism							(.80)	.05	.05
8. DLQ:IH								(.77)	.41**
9. PLIS									(.89)
<i>M</i>	3.16	3.96	1.13	4.03	4.14	2.82	0.32	1.41	0.17
<i>SD</i>	0.83	0.68	0.68	0.70	0.61	0.61	0.15	0.54	0.37

*Note.* Numbers along the diagonal are Cronbach's coefficient alpha values. Means, standard deviations, and reliabilities calculated at rater level ( $N_{\text{subordinate}} = 242$ ,  $N_{\text{manager}} = 135$ ). Intercorrelations calculated at manager level ( $N = 135$ ). PLIS = Perceived Leader Integrity Scale; DLQ:IH = Destructive Leadership Questionnaire: Interpersonal Harshness scale. \* $p < .05$ , \*\* $p < .01$ .

All analyses, with the exception of cluster analyses, were performed using Mplus version 5.21 (Muthén & Muthén, 2010) and IBM SPSS version 19.0 (IBM Corp., 2010). Cluster analyses were conducted using the statistical package SLEIPNER version 2.1 (Bergman & El-Khoury, 2002).

To address the first research question (i.e., how many distinct personality trait patterns exist among leaders?) and the second research question (i.e., what is the nature of each profile and what proportion of the sample is classified under each?), two primary analyses were conducted on leader personality ratings: hierarchical agglomerative cluster analysis and latent profile analysis.

### **Cluster Analyses**

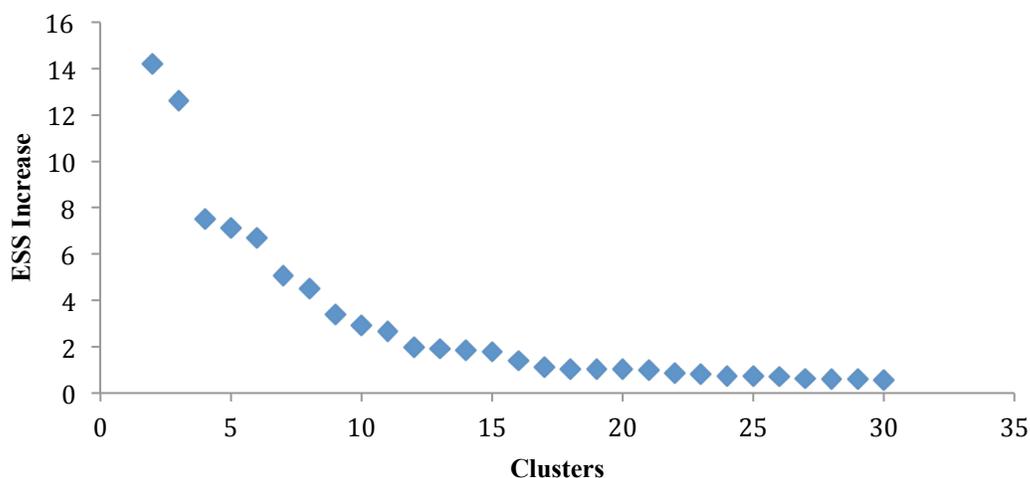
Cluster analysis is a technique in which a large number of cases (individuals) are categorized into fewer homogenous subgroups (Aldenderfer & Blashfield, 1984; Borgen & Barnett, 1987). It is similar in nature to factor analysis; but unlike factor analysis, cluster analysis does not attempt to account for variance within the data with respect to latent factors. Instead, individuals are assigned to subgroups based on the degree of similarity between cases and any subgroups that have already been formed. In the present study, the degree of similarity was assessed using the squared Euclidean distance (SED) as the similarity index for all cluster analyses. SED was used as the similarity index due to its sensitivity to three aspects of pattern similarity: shape (the pattern of low and high dimension scores in a profile), level (the overall elevation or height of the profile), and scatter (the variability of the dimension scores around the profile mean; Cronbach & Gleser, 1953; Skinner, 1978).

**Empirically derived factors.** Data were prepared for cluster analyses by grouping personality items into the four empirically derived factors (Egocentrism/Narcissism, Power/Influence, Conscientiousness, and Agreeableness). Because dimension scores were being used (rather than item-level data), all leaders met SLEIPNER's requirement for complete data and could therefore be included in the cluster analysis. Prior to any analyses, dimension scores were standardized (to  $z$ -scores) to prevent the resulting clusters from being affected by disproportionately large variances.

Next, outliers (i.e., cases that do not have an initial "sibling" based on pattern similarity) were identified and removed from the data using the RESIDUE function in SLEIPNER. If the SED between a case and its nearest 'sibling' was more than 0.5 (the default value for the RESIDUE function), the case was removed as an outlier. Of the 135 cases, the RESIDUE function identified and removed 11 outliers (8%). Therefore, 124 cases were included in this cluster analysis.

To examine the first research question regarding the number of personality trait patterns among leaders, the cluster analysis was conducted in two phases. In the first phase, Ward's (1963) minimum variance method was used to find the optimal number of clusters in the data. In this process, hierarchical agglomeration was used to create clusters iteratively using the pairwise SED, comparing each data point to any existing clusters and combining the two entities that are most similar in each "pass" through the data. These passes were repeated until all the cases and clusters were linked as one cluster at the highest level. Throughout this process, the error sum of squares (ESS) within clusters was calculated for every possible cluster solution. When changes in ESS are plotted and read from right-to-left,

the plot shows the increase in ESS as clusters are joined. When a large increase in error occurs, this indicates that two sufficiently dissimilar clusters have just been combined. The optimal cluster solution is therefore the number of clusters reached just prior to the large increase in error. Similar to the use of a factor analytic scree plot, this involves a somewhat subjective judgment regarding where the large increase in ESS occurs, because there may be several points where such an increase is evident. Examination of the ESS plot (see Figure 1) suggested that several cluster solutions could be viable: a seven-cluster solution, a nine-cluster solution, or a 12-cluster solution.



*Figure 1.* Error sum of squares (ESS). Initial cluster analysis for empirically derived dimensions suggests a nine-cluster solution.

Therefore the homogeneity coefficient (HC), an index of similarity, was calculated for all clusters in each of those solutions. Each HC is calculated using the average SED among all possible pairwise comparisons for individuals in a given cluster. Lower HC values indicate greater similarity among members. When standardized subscale scores are used in the analysis (as they were in the present study), HCs less than one are typically considered

evidence of homogenous clusters (e.g., Bergman & Trost, 2006). The nine-cluster solution was the only one in which all HC values were less than one. While the average HC value for the 9-cluster solution was slightly greater than the average HC value for the 12-cluster solution (as we would expect), it was still below one. Because the nine-cluster solution had the added advantage of being more parsimonious, it was determined to be the optimal solution. This solution seemed to achieve the goal of minimizing within-cluster differences while maximizing between-cluster differences.

The second phase of the process, often referred to as a *k*-means procedure, involved reassignment passes through the data based on the specified number of clusters, as determined in the first phase. This was done using the RELOCATE function of SLEIPNER. In this phase, the average profile or “centroid” was calculated for each of the nine clusters; a case was reassigned to the nearest cluster if it reduced the existing error (ESS) for that cluster. The centroid recalculation happened only after each entire pass through the data, rather than after each individual “move” and continued until ESS could not be further reduced (Aldenderfer & Blashfield, 1984; Bergman & El-Khoury, 2002). The goal of this phase is to correct for centroid drift that may have occurred during the first phase of clustering. Ultimately, it results in maximizing within-cluster homogeneity while maintaining the same total number of clusters identified in the initial hierarchical agglomerative step. As a result of this procedure, cases (i.e., leaders) were assigned to their final cluster. For each cluster, means and standard deviations for each of the four standardized personality dimensions were calculated from the members of that cluster to provide the “average” profile for that cluster (see Table 2).

Table 2.

*Mean (SD) and Homogeneity Coefficient for Clusters: Empirically Derived Factors*

Cluster	n	HC	E/N	P/I	C	A
1	16	0.65	-0.65 (0.44)	0.19 (0.56)	0.64 (0.58)	-0.77 (0.68)
2	12	0.77	-0.49 (0.73)	0.29 (0.71)	-1.76 (0.41)	0.16 (0.58)
3	8	0.76	1.04 (0.70)	-1.26 (0.22)	0.76 (0.55)	-0.77 (0.83)
4	15	0.72	-0.05 (0.65)	1.52 (0.62)	0.66 (0.54)	0.48 (0.58)
5	14	0.56	-0.92 (0.55)	-0.90 (0.46)	1.03 (0.45)	0.36 (0.63)
6	14	0.98	1.80 (0.64)	0.46 (0.83)	-0.46 (0.72)	-0.35 (0.58)
7	20	0.47	-0.44 (0.52)	-0.77 (0.47)	-0.38 (0.45)	0.14 (0.48)
8	8	0.85	-0.21 (0.37)	0.19 (1.03)	-1.21 (0.50)	-2.01 (0.49)
9	17	0.78	0.39 (0.69)	0.05 (0.70)	0.25 (0.64)	1.33 (0.42)

*Note.* Means and standard deviations calculated based on standardized (*z*) scores.

HC = Homogeneity coefficient (cluster similarity index), where lower values indicate greater similarity among members. E/N = Egocentrism/Narcissism (9 items), P/I = Power/Influence (7 items), C = Conscientiousness (4 items), A = Agreeableness (3 items).

To address Research Question 2 regarding the pattern of mean trait levels assigned to each cluster profile, a line graph depicting the standardized dimension means for all nine clusters is shown in Figure 2. This graph demonstrates that the nine profiles differ in shape (pattern of scores), level (overall elevation), and scatter (variance of scores around the mean). This implies that leaders differ not only in how much of a particular trait they possess, but also in the pattern of these traits. Put differently, the relationships *between* the dimensions—not just the level of each individual dimension—are informative.

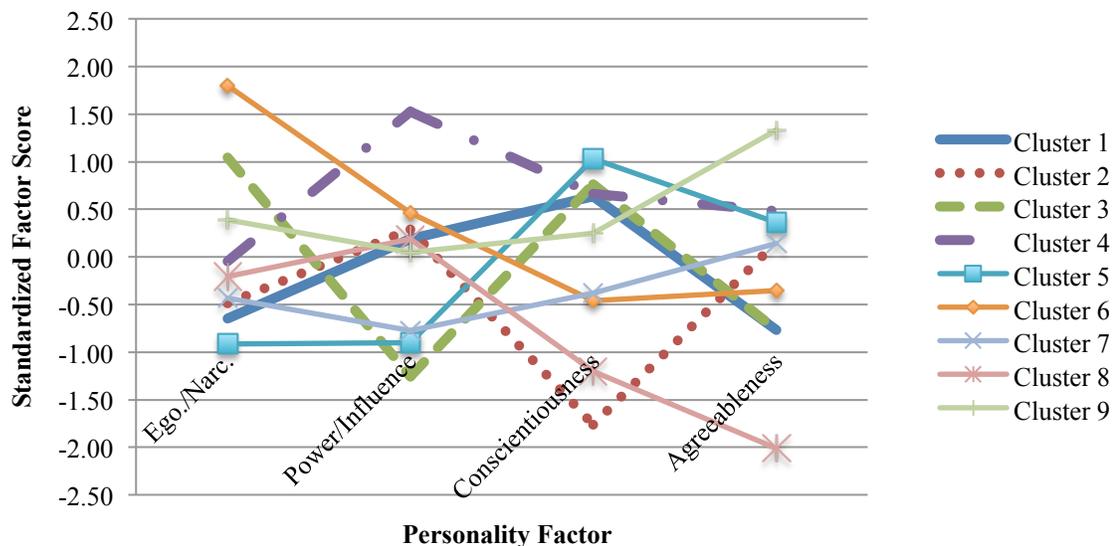


Figure 2. Standardized scores for empirically derived personality factors, by cluster.

Cluster profile graphs are shown in Figures 3.1 through 3.9. Each graph depicts the average, standardized self-ratings of personality traits for leaders in that particular cluster. Thus, a positive factor score indicates that leaders in that group tended to rate themselves higher than the mean score on that dimension, whereas a negative factor score indicates ratings less than the mean score on that dimension.

**Cluster profile 1.** Figure 3.1 depicts the mean profile for members in the first cluster ( $n = 16$ , 13% of total, homogeneity coefficient = 0.65). Leaders in this cluster tend to have moderately positive conscientiousness scores, in addition to Power/Influence scores just above the mean. Although these leaders tend to be below the mean on egocentrism/narcissism, they are also below the mean on agreeableness. Given the low egocentrism/narcissism score, which could be indicative of a lack of confidence, in combination with their low agreeableness scores, this group has been labeled “Insecure Grouches.”

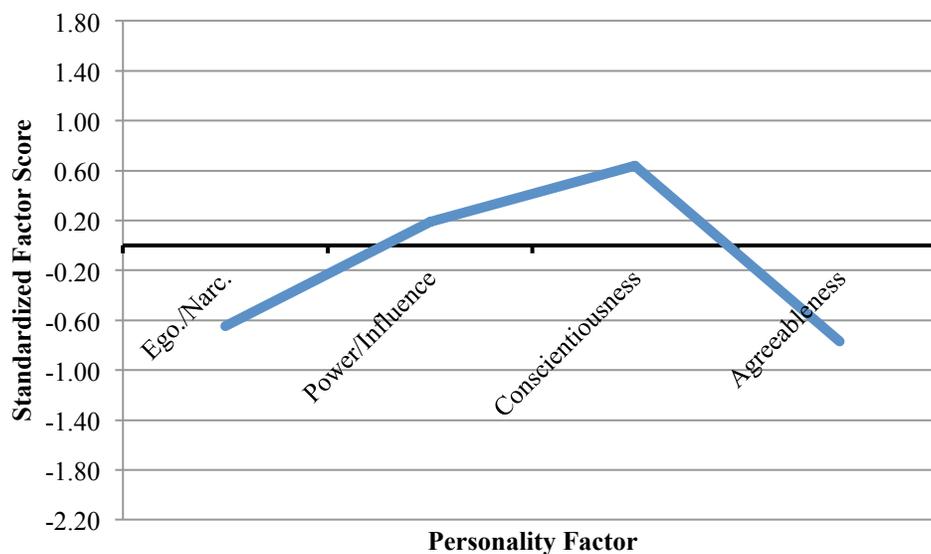


Figure 3.1. Standardized scores for empirically derived personality factors for cluster profile 1.

**Cluster profile 2.** Figure 3.2 depicts the mean profile for members in the second cluster ( $n = 12$ , 10% of total,  $HC = 0.77$ ). As a whole, this group demonstrated the lowest conscientiousness scores. Their power/influence and agreeableness scores were both slightly above the mean. Their mean egocentrism/narcissism score was about a half standard deviation below the mean, which could be indicative of lack of confidence and/or a proclivity to introversion. Therefore, this group has been labeled “Disengaged Introverts.”

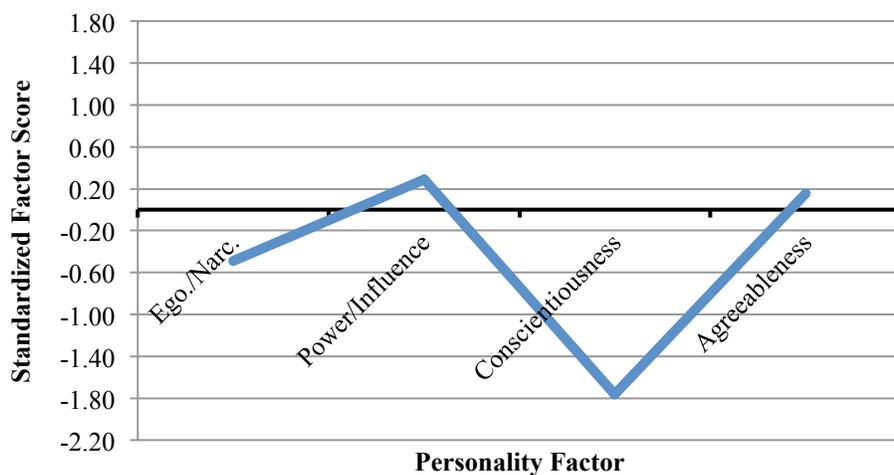
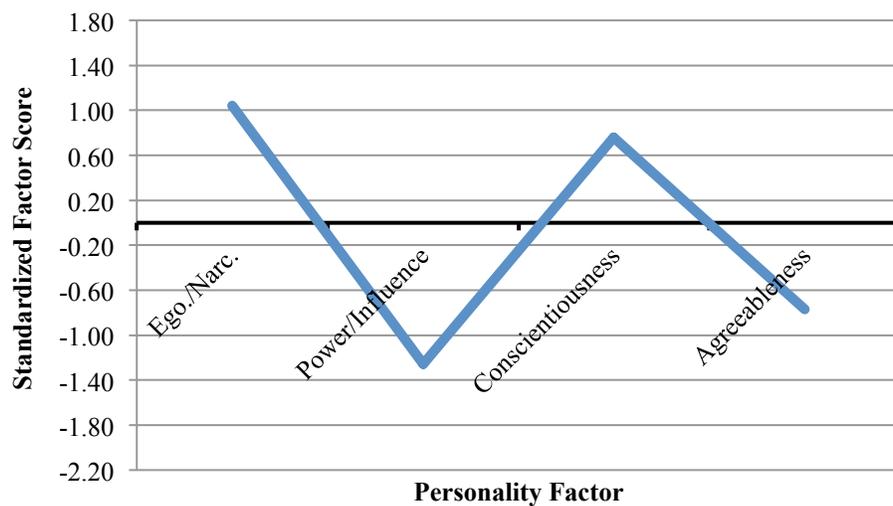


Figure 3.2. Standardized scores for empirically derived personality factors for cluster profile 2.

**Cluster profile 3.** Figure 3.3 depicts the mean profile for members in the third cluster ( $n = 8$ , 6% of total,  $HC = 0.76$ ). As a whole, this group demonstrated the lowest power/influence scores. Their average egocentrism/narcissism score was more than one standard deviation above the mean, which may indicate very high self-confidence or perhaps arrogance. Not surprisingly, this group also had a mean agreeableness score that was approximately three-quarters of a standard deviation below the mean, which would be consistent with not being overly concerned with others' feelings. Therefore, this group has been labeled "Self-Centered Individualists."



*Figure 3.3.* Standardized scores for empirically derived personality factors for cluster profile 3.

**Cluster profile 4.** Figure 3.4 depicts the mean profile for members in the fourth cluster ( $n = 15$ , 12% of total,  $HC = 0.72$ ). As a whole, this group demonstrated the highest power/influence scores. Their average egocentrism/narcissism score was just below the overall mean. Their conscientiousness scores were approximately two-thirds of a standard deviation above the mean, and their agreeableness scores were approximately half a standard deviation above the mean. Given their high power/influence scores and moderately high conscientiousness scores, this group has been labeled “Engaged Influencers.”

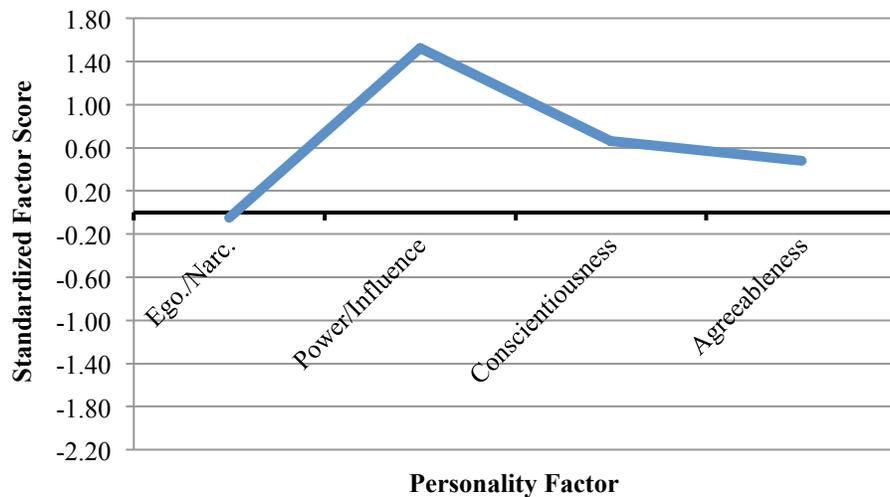


Figure 3.4. Standardized scores for empirically derived personality factors for cluster profile 4.

**Cluster profile 5.** Figure 3.5 depicts the mean profile for members in the fifth cluster ( $n = 14$ , 11% of total,  $HC = 0.56$ ). This group demonstrated both the lowest egocentrism/narcissism scores and the highest conscientiousness scores. Furthermore, their average power/influence score was nearly a full standard deviation below the mean and their agreeableness score was approximately two-thirds of a standard deviation above the mean. Given their very low egocentrism/narcissism scores and high conscientiousness and agreeableness scores, this group has been labeled “Worker Bees.”

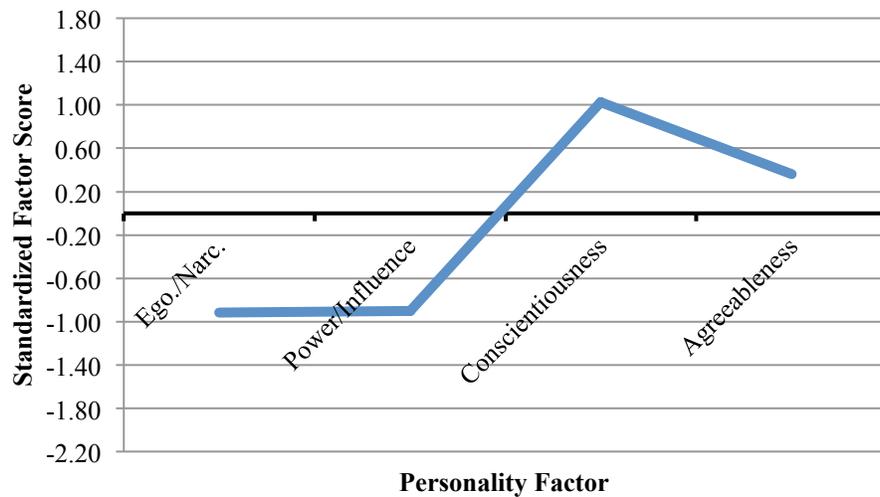


Figure 3.5. Standardized scores for empirically derived personality factors for cluster profile 5.

**Cluster profile 6.** Figure 3.6 depicts the mean profile for members in the sixth cluster ( $n = 14$ , 11% of total,  $HC = 0.98$ ). As a whole, this group demonstrated the highest egocentrism/narcissism scores, which likely indicates a preference for being the center of attention. Their average power/influence score was nearly half a standard deviation above the mean, while their average conscientiousness score was nearly half a standard deviation below the mean. Their average agreeableness score was approximately one-third a standard deviation below the mean. Given their very high egocentrism/narcissism score and moderately low conscientiousness and agreeableness scores, this group has been labeled “Spotlight Stealers.”

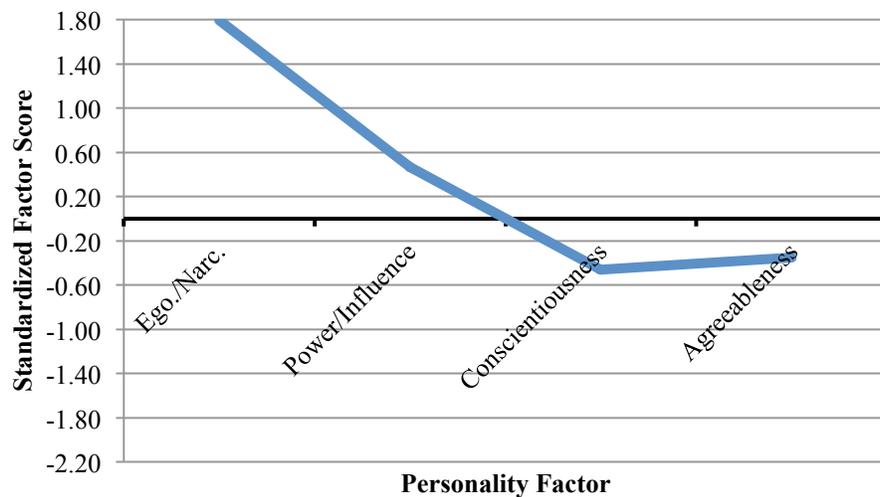
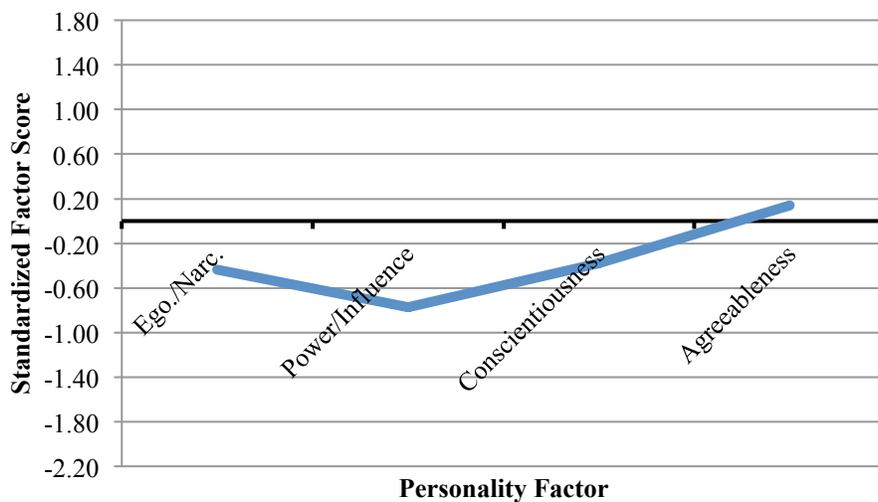


Figure 3.6. Standardized scores for empirically derived personality factors for cluster profile 6.

**Cluster profile 7.** Figure 3.7 depicts the mean profile for members in the seventh cluster ( $n = 20$ , 16% of total,  $HC = 0.47$ ). This group did not have a single defining characteristic, though they are notable in that they had below-average scores on all the factors except for agreeableness, which was just above the mean. These leaders do not seem to be excessively confident or power-hungry and are slightly above average in terms of agreeableness; thus they may be more socially accepted. However, they also have lower than average conscientiousness scores. Therefore, this group has been labeled “Social Loafers.”



*Figure 3.7.* Standardized scores for empirically derived personality factors for cluster profile 7.

**Cluster profile 8.** Figure 3.8 depicts the mean profile for members in the eighth cluster ( $n = 8$ , 6% of total,  $HC = 0.85$ ). As a whole, this group demonstrated the lowest agreeableness scores; on average, they scored two standard deviations below the mean. They also had very low conscientiousness scores (more than one standard deviation below the mean). Their mean egocentrism/narcissism score was slightly below the mean, while their mean power/influence score was slightly above the mean. Given their very low agreeableness and conscientiousness scores, this group has been labeled “Cantankerous Slackers.”

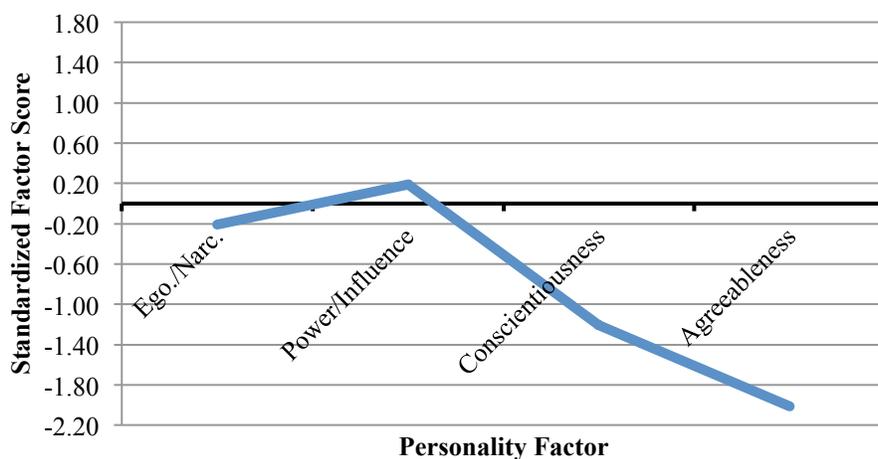
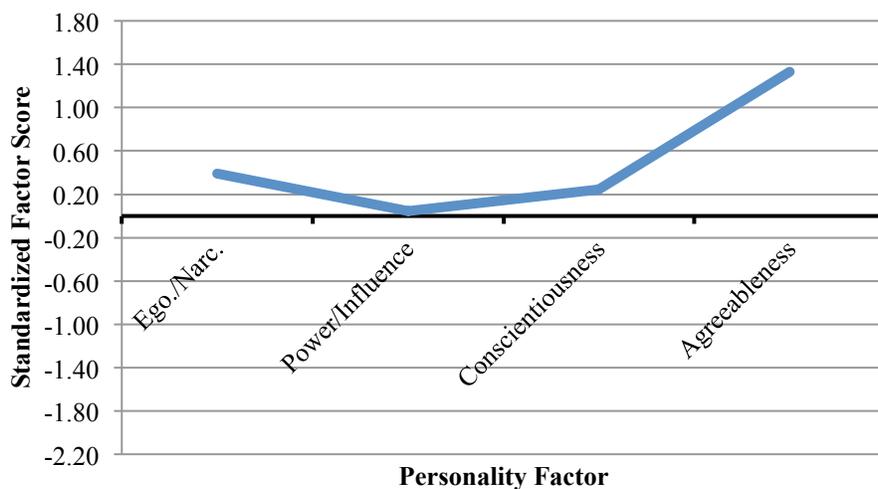


Figure 3.8. Standardized scores for empirically derived personality factors for cluster profile 8.

**Cluster profile 9.** Figure 3.9 depicts the mean profile for members in the ninth cluster ( $n = 17$ , 14% of total,  $HC = 0.78$ ). As a whole, this group demonstrated the highest agreeableness scores. They had moderately positive egocentrism/narcissism scores, which may indicate extraverted tendencies. Their mean conscientiousness score was one-quarter of a standard deviation above the mean. Therefore, this group has been labeled “Team Players.”



*Figure 3.9.* Standardized scores for empirically derived personality factors for cluster profile 9.

***A priori factors.*** After completing a cluster analysis based on the four empirically derived personality dimensions, a second cluster analysis was conducted using the seven *a priori* personality traits. Data were prepared for cluster analyses by grouping personality items into these seven factors (EXT, OPN, NEU, CON, AGR, NARC, MACH). As before, because dimension scores were being used (rather than item-level data), all leaders had complete data and could therefore be included in the cluster analysis. Dimension scores were again standardized prior to conducting further analyses.

Using the RESIDUE function, outliers were identified and removed from the data. Using the SLEIPNER's default threshold of 0.5 SED, 24 outliers (18%) were identified. Because this would have resulted in a sizable proportion of the data being removed, the threshold was increased to .75. Using this new threshold, the RESIDUE function identified and removed six outliers (4%). Therefore, 129 cases were included in this cluster analysis.

In the first phase of the cluster analysis, Ward's (1963) minimum variance method was again used to find the optimal number of clusters in the data. As before, examination of the ESS plot (see Figure 4) suggested that several cluster solutions could be viable: a six-cluster solution, a 10-cluster solution, or a 14-cluster solution.

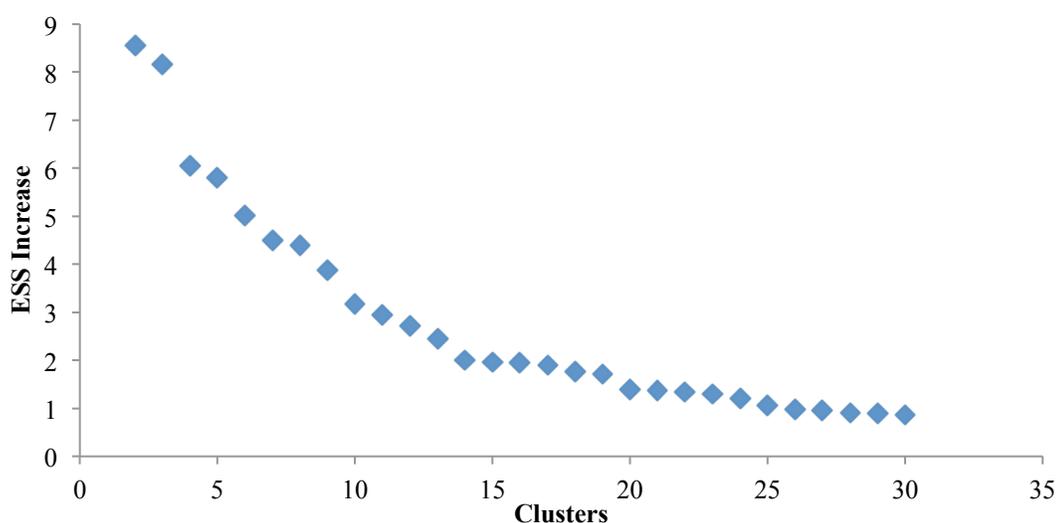


Figure 4. Error sum of squares (ESS). Initial cluster analysis for *a priori* dimensions suggests a 10-cluster solution.

The homogeneity coefficient (HC) was calculated for all clusters in each of those solutions, using the average SED among all possible pairwise comparisons for individuals in each cluster. Although the average HC value (1.02) was just above one, the 10-cluster solution was determined to be the optimal solution based on its relative parsimony (compared to the 14-cluster solution) and its relatively low HC values (compared to the six-cluster solution).

Using the RELOCATE function of SLEIPNER, the average profile was calculated for each of the 10 clusters; a case was reassigned to the nearest cluster if it reduced the existing error (ESS) for that cluster in order to correct for any centroid drift. As a result of this procedure, cases (i.e., leaders) were assigned to their final cluster. For each cluster, means and standard deviations for each of the seven standardized personality factors were calculated from members of that cluster to provide the “average” profile for that cluster (see Table 3).

Table 3.  
*Mean (SD) and Homogeneity Coefficient for Clusters: A Priori Factors*

Cluster	n	HC	EXT	OPN	NEU	CON	AGR	MACH	NARC
1	10	1.21	1.26 (0.66)	-0.52 (0.93)	0.03 (0.56)	-0.08 (0.88)	-0.29 (0.77)	0.44 (0.83)	1.88 (0.73)
2	10	1.26	-1.24 (0.68)	-1.00 (0.85)	0.85 (0.53)	-0.67 (1.09)	-1.05 (0.88)	0.72 (0.66)	-1.02 (0.76)
3	16	0.88	1.26 (0.49)	0.94 (0.49)	-0.90 (0.67)	0.52 (0.67)	0.49 (0.80)	-0.91 (0.75)	0.37 (0.70)
4	17	0.80	-0.36 (0.52)	-0.86 (0.60)	-1.06 (0.51)	0.51 (0.75)	-0.10 (0.67)	-0.40 (0.79)	-0.57 (0.53)
5	14	0.92	0.28 (0.55)	0.51 (0.45)	-0.61 (0.57)	-0.99 (0.89)	0.37 (0.67)	0.33 (0.71)	-0.15 (0.80)
6	13	1.09	-0.26 (0.70)	0.80 (0.51)	0.07 (0.91)	0.76 (0.63)	-0.51 (1.01)	0.74 (0.46)	0.87 (0.79)
7	18	1.10	0.19 (0.78)	-1.04 (0.67)	0.70 (0.53)	-0.16 (0.92)	0.46 (0.54)	0.17 (1.02)	-0.06 (0.59)
8	7	0.94	-0.85 (0.83)	0.91 (0.36)	1.61 (0.81)	-0.85 (0.62)	0.82 (0.63)	1.42 (0.55)	-0.43 (0.87)
9	6	1.09	0.42 (0.76)	0.49 (0.65)	0.03 (1.07)	-1.17 (0.59)	-2.15 (0.44)	-0.35 (0.82)	0.23 (0.68)
10	18	0.90	-0.83 (0.53)	0.36 (0.67)	0.40 (0.73)	0.58 (0.63)	0.41 (0.84)	-0.86 (0.66)	-0.62 (0.57)

*Note.* Means and standard deviations calculated based on standardized ( $z$ ) scores.

HC = homogeneity coefficient (cluster similarity index), where lower values indicate greater similarity among members. EXT = Extraversion (4 items), OPN = Openness (4 items), NEU = Neuroticism (4 items), CON = Conscientiousness (4 items), AGR = Agreeableness (4 items), MACH = Machiavellianism (18 items), NARC = Narcissism (34 items).

To address Research Question 2 regarding the pattern of mean trait levels assigned to each cluster profile, a line graph depicting the standardized factor means for all 10 clusters is shown in Figure 5. Again, this graph demonstrates that the profiles differ in shape (pattern of scores), level (overall elevation), and scatter (variance of scores around the mean), suggesting that leaders differ in their patterns of personality traits.

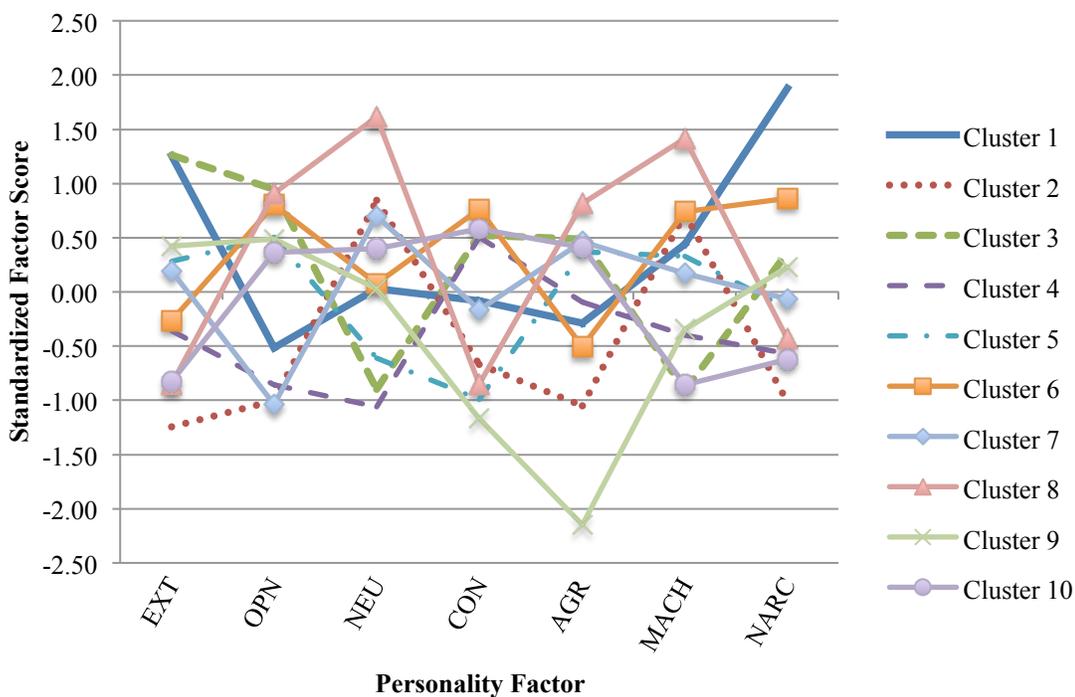


Figure 5. Standardized scores for *a priori* personality factors, by cluster.

Cluster profile graphs are shown in Figures 6.1 through 6.10. Each graph depicts the average, standardized self-ratings of personality traits for leaders in that particular cluster. Thus, a positive factor score indicates that leaders in that group tended to rate themselves higher than the mean score on that dimension, whereas a negative factor score indicates ratings less than the mean score on that dimension.

**Cluster profile 1.** Figure 6.1 depicts the mean profile for members in the first cluster ( $n = 10$ , 8% of total, homogeneity coefficient = 1.21). As a whole, this group (along with cluster profile 3) demonstrated the highest extraversion scores. They also had the highest average narcissism score. Their average openness score was approximately half a standard deviation below the mean, while their average Machiavellianism score was nearly half a standard deviation above the mean. Given their very high extraversion and narcissism scores, this group has been labeled “Extraverted Exhibitionists.”

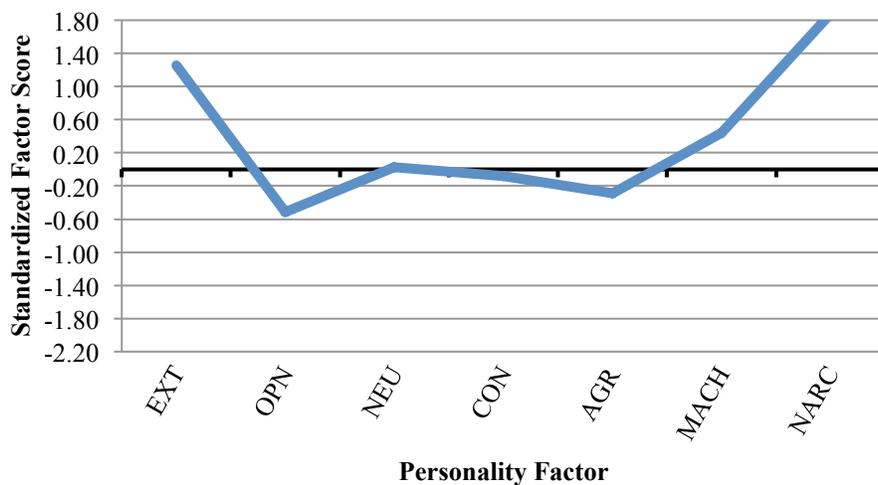


Figure 6.1. Standardized scores for *a priori* personality factors for cluster profile 1.

**Cluster profile 2.** Figure 6.2 depicts the mean profile for members in the second cluster ( $n = 10$ , 8% of total,  $HC = 1.26$ ). As a whole, this group had the lowest extraversion (i.e., highest introversion) scores and the lowest narcissism scores. Interestingly, their average agreeableness score was also very low (one standard deviation below the mean) and their Machiavellianism score was somewhat high (nearly three-quarters of a standard deviation above the mean). Considering all of these characteristics together, this group has been labeled “Cynical Wallflowers.”

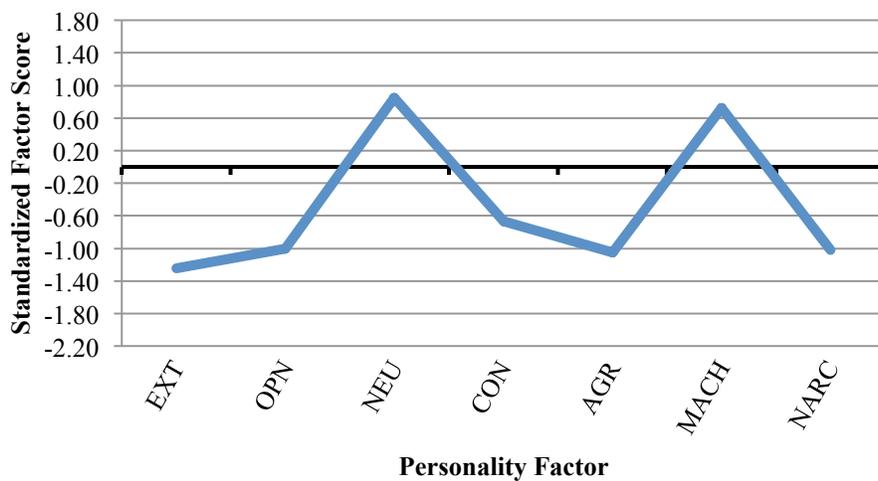


Figure 6.2. Standardized scores for *a priori* personality factors for cluster profile 2.

**Cluster profile 3.** Figure 6.3 depicts the mean profile for members in the third cluster ( $n = 16$ , 12% of total,  $HC = 0.88$ ). Along with cluster profile 1, this group had the highest average extraversion score. They also demonstrated the lowest mean Machiavellianism score. Together, these qualities may indicate a preference for working collaboratively. They also demonstrated the highest mean openness score, indicating a preference for imaginative and/or abstract thinking. Therefore, this group has been labeled “Intellectual Team Players.”

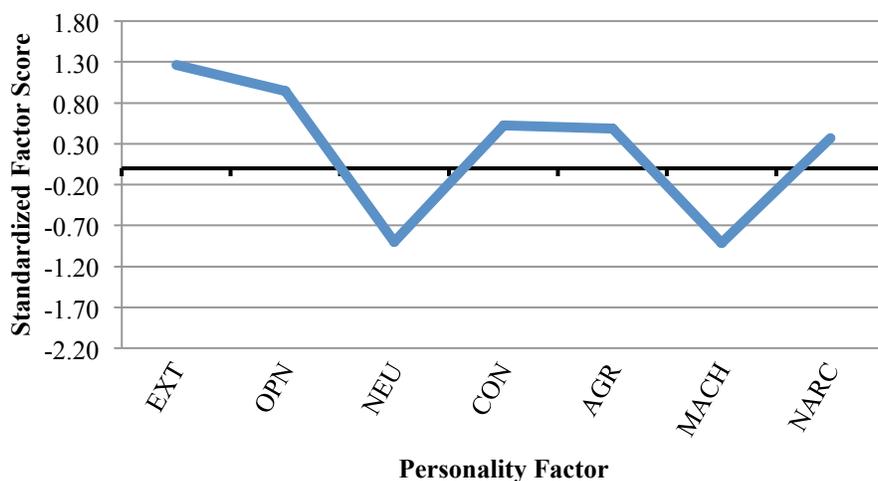


Figure 6.3. Standardized scores for *a priori* personality factors for cluster profile 3.

**Cluster profile 4.** Figure 6.4 depicts the mean profile for members in the fourth cluster ( $n = 17$ , 13% of total,  $HC = 0.80$ ). As a whole, this group demonstrated the lowest neuroticism scores, indicating they are not prone to displaying their emotions. Their average openness score was almost one standard deviation below the mean, indicating a preference for concrete—as opposed to abstract—thinking. Therefore, this group has been labeled “Even-Keeled Pragmatists.”

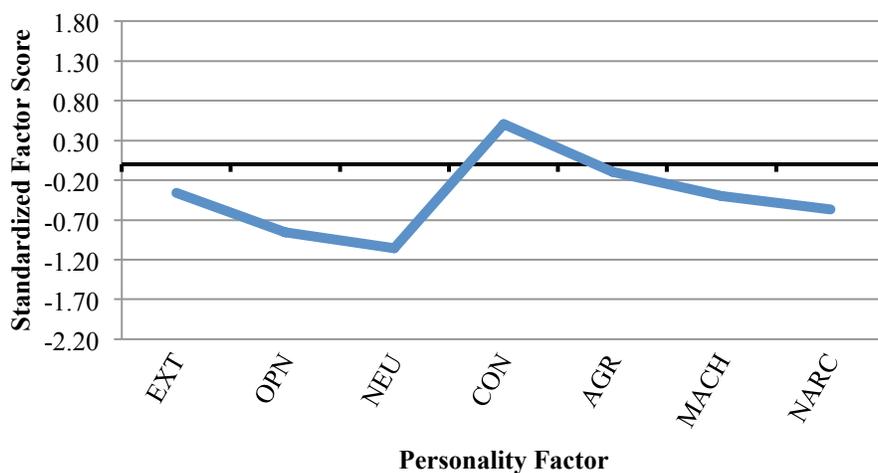


Figure 6.4. Standardized scores for *a priori* personality factors for cluster profile 4.

**Cluster profile 5.** Figure 6.5 depicts the mean profile for members in the fifth cluster ( $n = 14$ , 11% of total,  $HC = 0.92$ ). This group is characterized by below-average conscientiousness (one standard deviation below the mean), below-average neuroticism and above-average openness. Considering all these characteristics together, this group has been labeled “Absent-Minded Dreamers.”

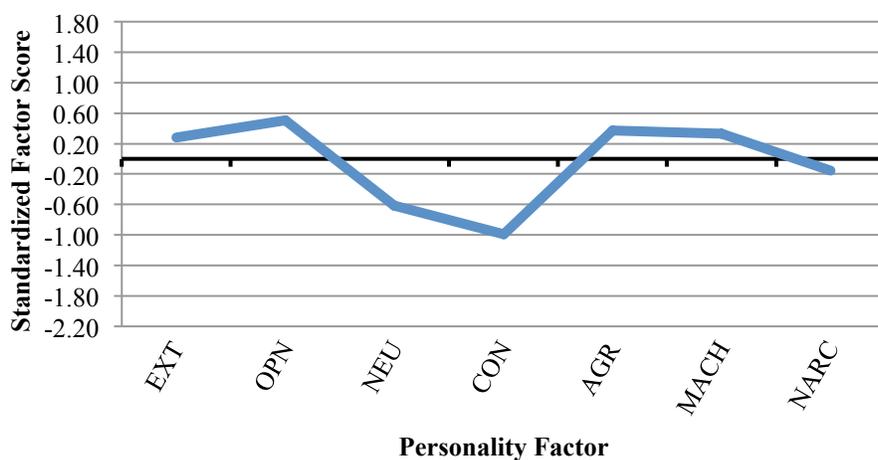


Figure 6.5. Standardized scores for *a priori* personality factors for cluster profile 5.

**Cluster profile 6.** Figure 6.6 depicts the mean profile for members in the sixth cluster ( $n = 13$ , 10% of total,  $HC = 1.09$ ). As a whole, this group had the highest conscientiousness scores. They also had high openness scores, which may indicate a preference for imaginative and/or visionary thinking. Taken together with their high Machiavellianism and narcissism scores, this group has been labeled “Attentive Manipulators.”

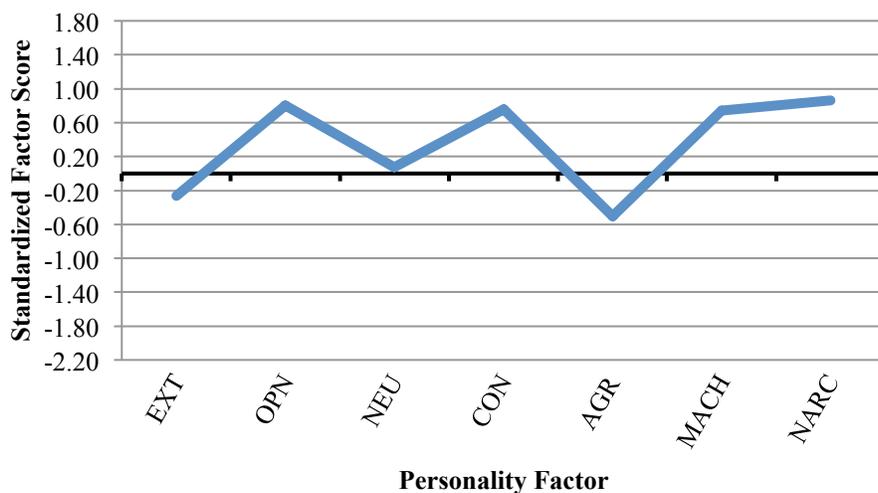


Figure 6.6. Standardized scores for *a priori* personality factors for cluster profile 6.

**Cluster profile 7.** Figure 6.7 depicts the mean profile for members in the seventh cluster ( $n = 18$ , 14% of total,  $HC = 1.10$ ). As a whole, this group had the lowest openness scores, indicating a preference for objectivity and/or concrete thinking. Their average neuroticism score was nearly three-quarters of a standard deviation above the mean; their average agreeableness score was nearly half a standard deviation above the mean. Considering these characteristics together, this group has been labeled “Excitable Realists.”

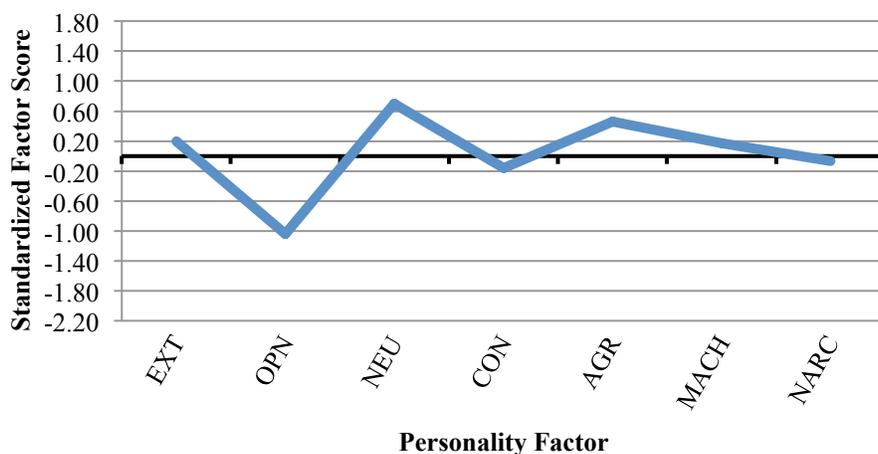


Figure 6.7. Standardized scores for *a priori* personality factors for cluster profile 7.

**Cluster profile 8.** Figure 6.8 depicts the mean profile for members in the eighth cluster ( $n = 7$ , 5% of total,  $HC = 0.94$ ). This group had several extreme scores. As a whole, they had the highest neuroticism and agreeableness scores, which together may be indicative of high sensitivity. Interestingly, they also had the highest Machiavellianism scores. Therefore, this group has been labeled “Sensitive Exploiters.”

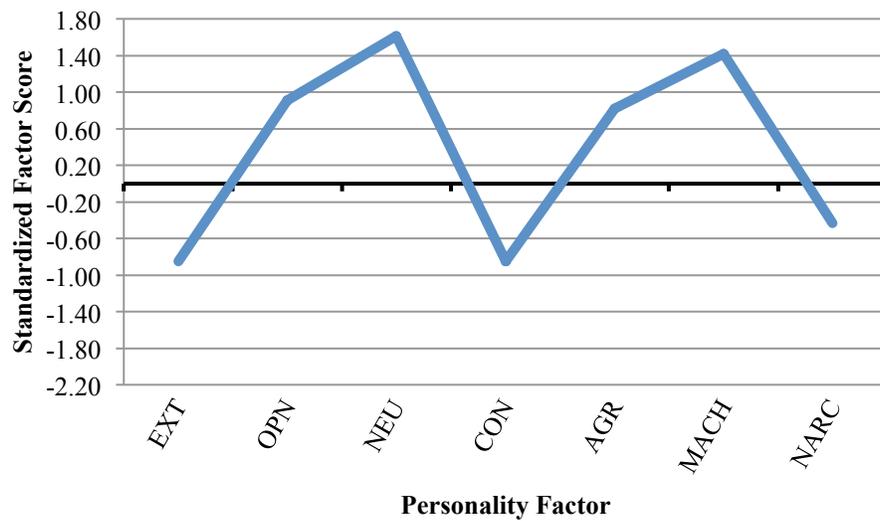


Figure 6.8. Standardized scores for *a priori* personality factors for cluster profile 8.

**Cluster profile 9.** Figure 6.9 depicts the mean profile for members in the ninth cluster ( $n = 6$ , 5% of total,  $HC = 1.09$ ). As a whole, this group demonstrated the lowest agreeableness scores (more than two standard deviations below the mean) and the lowest conscientiousness scores (more than one standard deviation below the mean). All of their other personality traits were moderate by comparison. Thus, this group has been labeled “Disagreeable Slackers.”

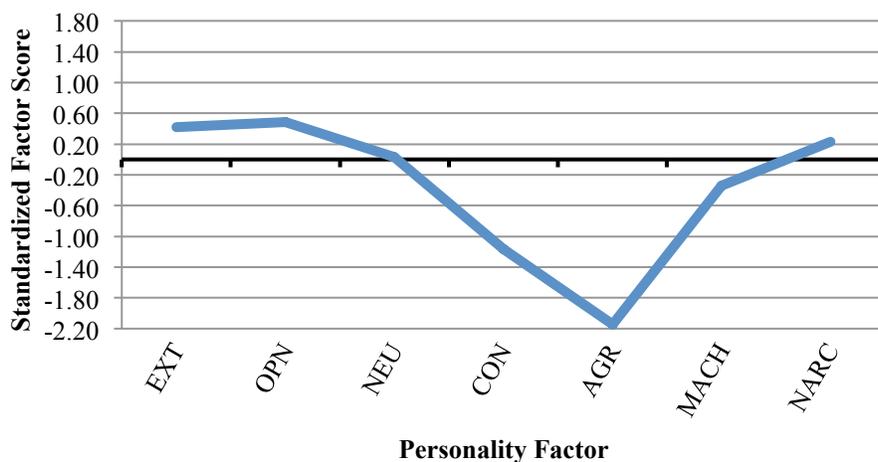


Figure 6.9. Standardized scores for *a priori* personality factors for cluster profile 9.

**Cluster profile 10.** Figure 6.10 depicts the mean profile for members in the tenth cluster ( $n = 18$ , 14% of total,  $HC = 0.90$ ). This group was characterized by below average Machiavellianism, narcissism, and extraversion. They also demonstrated above average conscientiousness and agreeableness scores. Considering all of these traits together, this group has been labeled “Unassuming Submitters.”

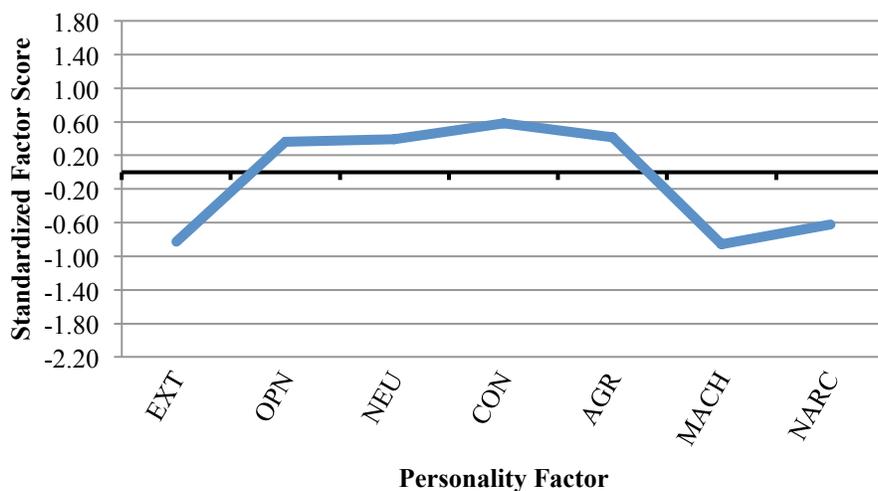


Figure 6.10. Standardized scores for *a priori* personality factors for cluster profile 10.

## Latent Profile Analyses

Latent profile analysis (LPA) is similar to cluster analysis in that it involves the classification of cases with similar patterns of personality traits to a latent category, or profile. Unlike cluster analysis, LPA is a model-based approach and uses maximum likelihood estimation in parameter estimation. In LPA, cases are assumed to belong to one of  $K$  latent classes; initially, the number of classes and the number of cases in each is unknown (Vermunt & Magidson, 2002). In practice, LPA is similar to the  $k$ -means method used in the cluster analysis. Unlike cluster analysis in which each case is assigned to a single cluster, LPA is a probabilistic approach. It acknowledges that there may be some uncertainty about the group in which each case has been assigned and provides the probability for a case belonging to each of the  $K$  classes. These probabilities are calculated using the estimated model parameters and the individual's observed scores (Vermunt & Magidson, 2002).

To further investigate the first two research questions regarding the number of personality trait patterns, the nature of each, and the proportion of the sample belonging to each, latent profile analysis was conducted. As with the cluster analysis, LPA was conducted twice: once using the four empirically derived personality dimensions, and a second time using the seven *a priori* personality factors.

**Empirically derived factors.** Prior to conducting the latent profile analysis, a multivariate outlier analysis was conducted by calculating the Mahalanobis distance (MD) for leaders' personality scores. Unlike a univariate approach, MD takes into account the pattern of responses across a series of items (Meade & Craig, 2012). Participants would be removed if they had a significant MD value ( $p < .001$ ) based on their empirically derived

dimension scores; this would have resulted in one leader participant being removed. However, because one objective of the present study was to compare the results of cluster analysis to latent profile analysis, a decision was made to exclude an additional 10 participants who had also been removed from the cluster analysis. Thus, the ED latent profile analysis was conducted using the same 124 leaders used in the ED cluster analysis.

Latent profile analysis was conducted using Nylund and colleagues' (2007) guidelines to determine the number of latent classes. First, a two-profile model was specified; profiles were then added successively until issues with non-convergence arose (Lubke & Muthén, 2005). While LPA does not provide a single index of within-group homogeneity like cluster analysis, there are several criteria that may be used to determine the “correct” number of latent profiles. Consistent with Nylund et al. (2007), model fit was assessed each time using the Bayesian Information Criterion (BIC) and the bootstrapped likelihood ratio test (BLRT). There has been strong support for using the BIC to determine the number of classes in LPA (Collins, Fidler, Wugalter, & Long, 1993; Hagenaars & McCutcheon, 2002; Magidson & Vermunt, 2004; Nylund et al., 2007). The BLRT is a likelihood-based technique used to compare nested LPA models. It provides a *p*-value that indicates whether the increase in model fit between the *k*-1 and *k* class models is significant (McLachlan & Peel, 2000). When a model with *k* classes no longer has a significant BLRT, this indicates that the *k*-1 class solution is likely the preferred model. The optimal solution has the following characteristics: the lowest BIC value, a significant BLRT, no profiles with a small number of cases, and clearly defined profiles, as indicated by a high probability that

each individual has been correctly assigned to his or her profile, and a low probability that they belong to another profile (Meyer, Stanley, & Parfyonova, 2012).

In the LPA based on the empirically derived factors, a two-profile model was initially specified, and profiles were successively added. Upon the addition of a sixth profile, issues of non-convergence arose. Thus the four previous models were compared to determine which was the most appropriate. The four-profile and five-profile models had non-significant BLRTs, indicating that these did not have significantly better fit compared to the three-profile model. While the BIC was slightly lower in the two-profile model compared to the three-profile model, the BLRT was significant in the three-profile model, indicating a significant improvement in model fit compared to the two-profile model. Thus, the three-profile model was determined to be the most appropriate.

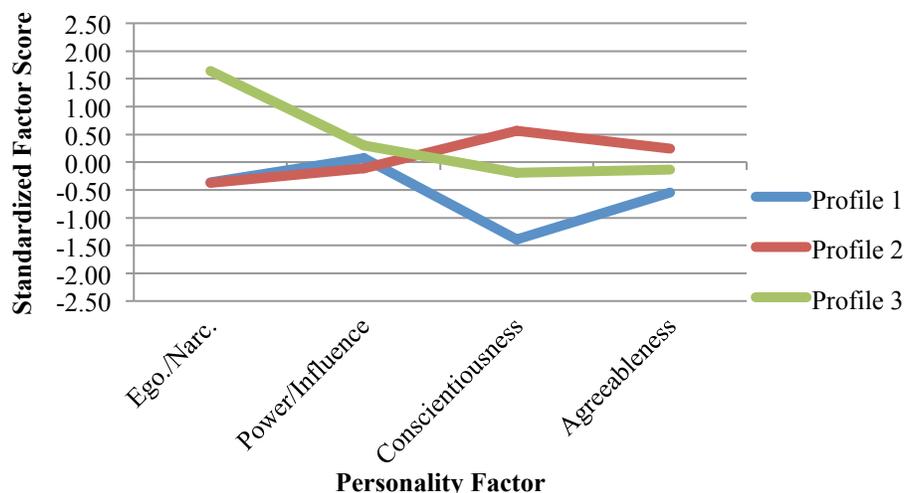
For each profile, means and standard deviations for each of the four standardized personality dimensions were calculated to provide the “average” profile for that class (see Table 4).

Table 4.  
*Mean (SD) for Latent Profiles: Empirically Derived Factors*

Profile	n	E/N	P/I	C	A
1	27	-0.37 (0.62)	0.07 (0.89)	-1.39 (0.53)	-0.55 (1.14)
2	74	-0.37 (0.63)	-0.12 (0.97)	0.57 (0.62)	0.24 (0.92)
3	23	1.63 (0.61)	0.30 (1.18)	-0.19 (0.71)	-0.13 (0.83)

*Note.* Means and standard deviations calculated based on standardized (*z*) scores. E/N = Egocentrism/Narcissism (9 items), P/I = Power/Influence (7 items), C = Conscientiousness (4 items), A = Agreeableness (3 items).

To address Research Question 2, regarding the pattern of mean trait levels assigned to each profile, a line graph depicting the standardized dimension means for the three latent profiles is shown in Figure 7.



*Figure 7.* Standardized scores for empirically derived personality factors, by latent profile.

Latent profile graphs are shown in Figures 8.1 through 8.3. Each graph depicts the average, standardized self-ratings of personality traits for leaders in that latent profile. Thus, a positive factor score indicates that leaders in that group tended to rate themselves higher than the mean score on that dimension, whereas a negative factor score indicates ratings less than the mean score on that dimension.

**Latent profile 1.** Figure 8.1 depicts the mean profile for members in the first latent profile ( $n = 27$ , 22% of total). This group is tied with latent profile 2 for the lowest average egocentrism/narcissism score, which was slightly more than one-third a standard deviation below the mean. This group also had the lowest mean conscientiousness and agreeableness scores. Their power/influence score was approximately average. This group has been labeled “Careless Loners.”

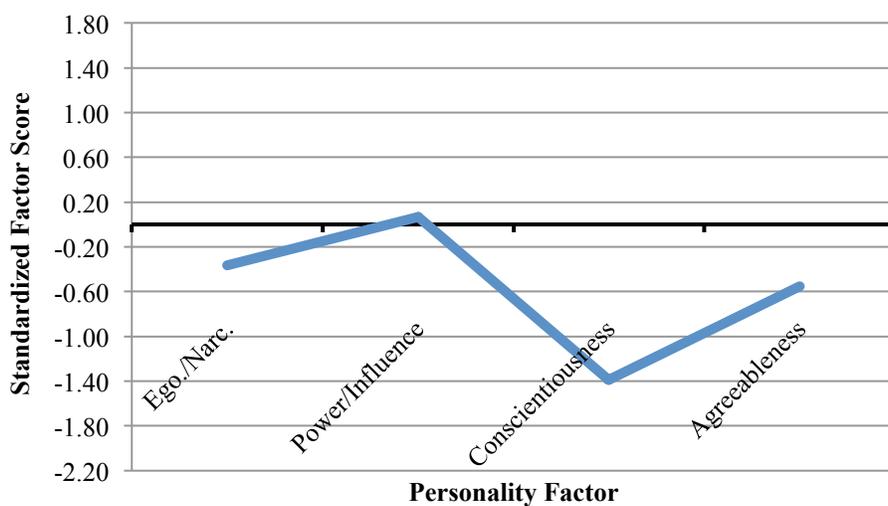


Figure 8.1. Standardized scores for empirically derived personality factors for latent profile 1.

**Latent profile 2.** Figure 8.2 depicts the mean profile for members in the second latent profile ( $n = 74$ , 60% of total). Notably, this is the only group with a positive mean conscientiousness score, as well as the only one with a positive agreeableness score. Their egocentrism/narcissism and power/influence scores are both below average. This group has therefore been labeled “Friendly Organizers.”

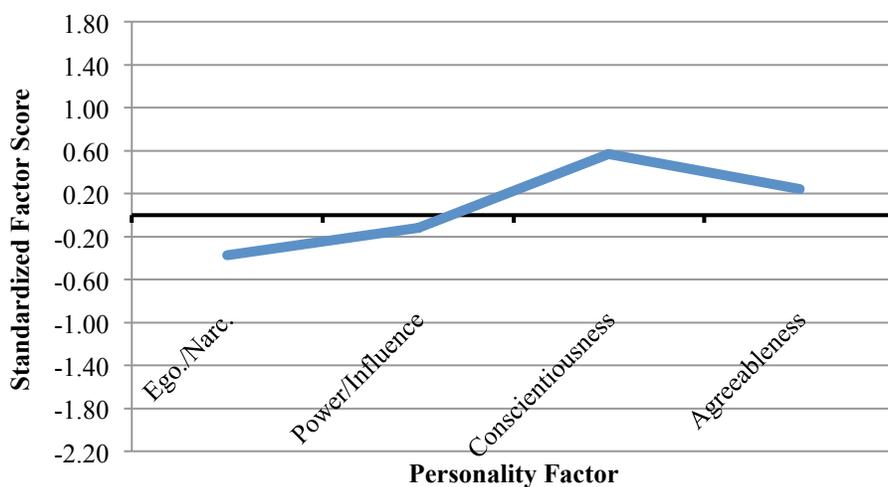


Figure 8.2. Standardized scores for empirically derived personality factors for latent profile 2.

**Latent profile 3.** Figure 8.3 depicts the mean profile for members in the third latent profile ( $n = 23$ , 19% of total). Notably, this group has the highest average egocentrism/narcissism score (more than one and a half standard deviations above average) and the highest average power/influence score (nearly one-third a standard deviation above average). Their mean conscientiousness and agreeableness scores are both below average. This group has been labeled “Self-Involved Extraverts.”

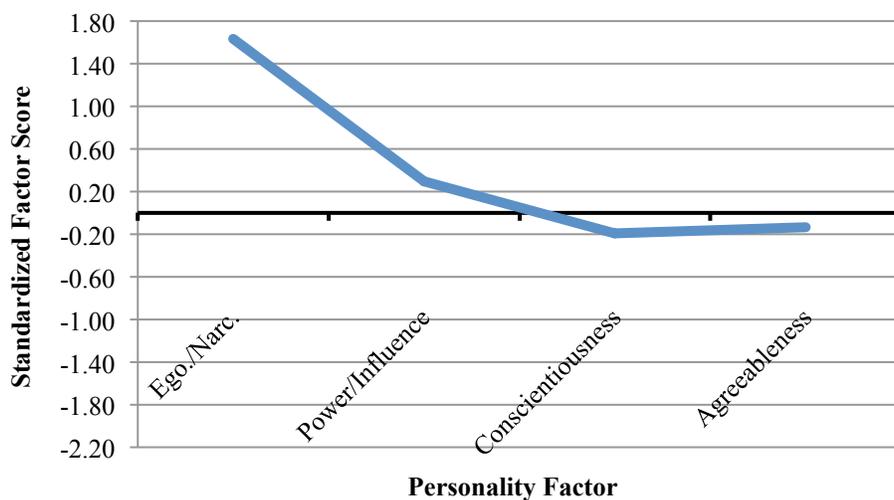


Figure 8.3. Standardized scores for empirically derived personality factors for latent profile 3.

***A priori factors.*** After completing a latent profile analysis based on the four empirically derived personality dimensions, a second LPA was conducted using the seven *a priori* personality traits. First, a multivariate outlier analysis was conducted by calculating the Mahalanobis distance (MD) for leaders' personality scores. Participants would be removed if they had a significant MD value ( $p < .001$ ) based on their *a priori* dimension scores; this would have resulted in five leader participants being removed. But in order to compare the results of the cluster analysis to the latent profile analysis, a decision was made to exclude one additional participant who had also been removed from the cluster analysis. Thus, the AP latent profile analysis was conducted using the same 129 leaders used in the AP cluster analysis.

In the LPA based on the *a priori* factors, a two-profile model was initially specified, and profiles were successively added. Upon the addition of a third profile, issues of non-convergence arose. The BLRT for the three-profile model was non-significant, which provided further evidence that the two-profile model was the preferred model. Consistent with this, the BIC was lower for the two-profile model compared to the three-profile model. Thus, the two-profile model was determined to be the most appropriate.

For each profile, means and standard deviations for each of the seven standardized personality factors were calculated to provide the “average” profile for that class (see Table 5).

Table 5.  
*Mean (SD) for Latent Profiles: A Priori Factors*

Profile	n	EXT	OPN	NEU	CON	AGR	MACH	NARC
1	80	-0.63 (0.60)	-0.20 (1.00)	0.19 (1.02)	0.02 (1.00)	-0.01 (0.95)	0.08 (1.04)	-0.39 (0.82)
2	49	1.03 (0.57)	0.33 (0.91)	-0.31 (0.90)	-0.04 (1.00)	0.01 (1.09)	-0.13 (0.93)	0.64 (0.94)

*Note.* Means and standard deviations calculated based on standardized ( $z$ ) scores. EXT = Extraversion (4 items), OPN = Openness (4 items), NEU = Neuroticism (4 items), CON = Conscientiousness (4 items), AGR = Agreeableness (4 items), MACH = Machiavellianism (18 items), NARC = Narcissistic Personality Inventory (34 items).

To address Research Question 2, regarding the pattern of mean trait levels assigned to each profile, a line graph depicting the standardized factor means for the two latent profiles is shown in Figure 9.

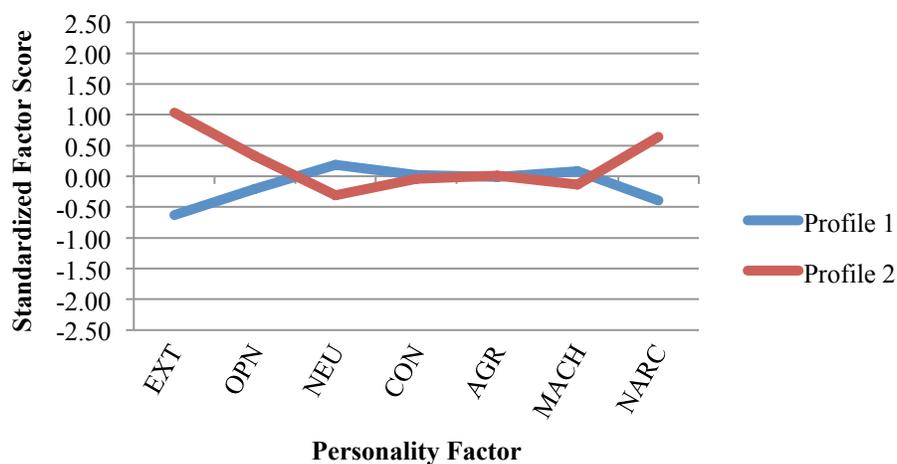


Figure 9. Standardized scores for *a priori* personality factors, by latent profile.

Latent profile graphs are shown in Figures 10.1 and 10.2. Each graph depicts the average, standardized self-ratings of personality traits for leaders in that latent profile. Thus, a positive factor score indicates that leaders in that group tended to rate themselves higher than the mean score on that dimension, whereas a negative factor score indicates ratings less than the mean score on that dimension.

**Latent profile 1.** Figure 10.1 depicts the mean profile for members in the first latent profile ( $n = 80$ , 62% of total). This group is characterized by below-average extraversion, openness, and narcissism, and above-average neuroticism. Their conscientiousness and Machiavellianism scores are slightly positive, but very close to average. This group has been labeled “Reserved Altruists.”

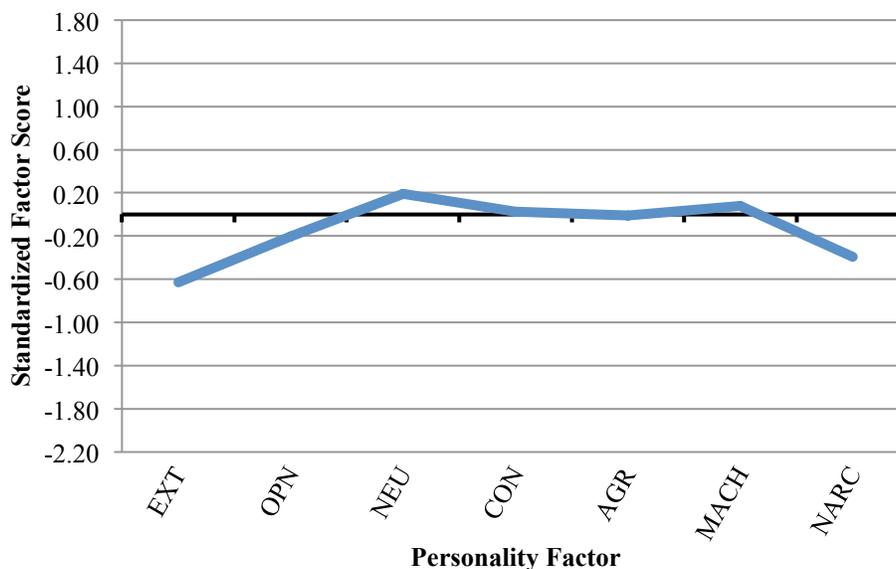


Figure 10.1. Standardized scores for *a priori* personality factors for latent profile 1.

**Latent profile 2.** Figure 10.2 depicts the mean profile for members in the second latent profile ( $n = 49$ , 38% of total). This group is characterized by above-average extraversion, openness, and narcissism. Their Machiavellianism and neuroticism scores are slightly below average. This group has been labeled “Self-Centered Extraverts.”

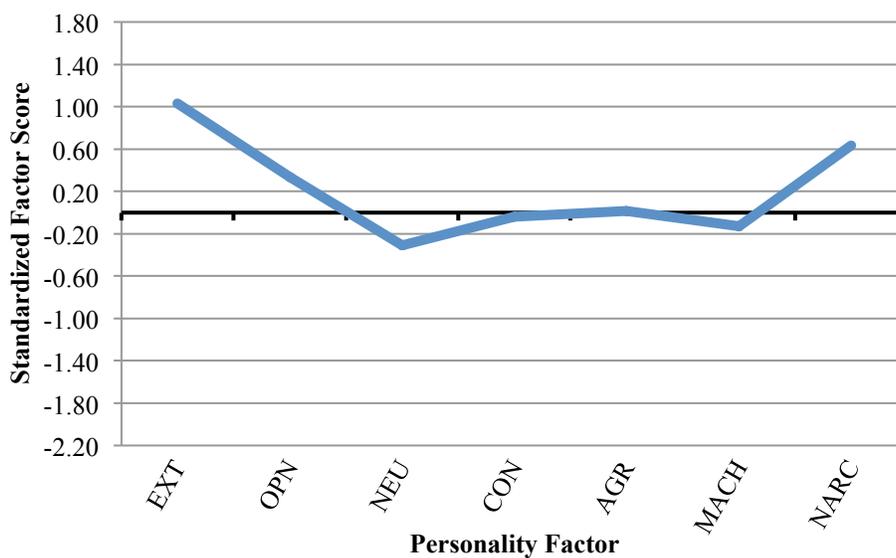


Figure 10.2. Standardized scores for *a priori* personality factors for latent profile 2.

### **Personality and Organizational Level**

The third research question, regarding whether leader clusters or profiles would be differentially represented at different organizational levels, was addressed using a chi-square contingency table analysis to determine if leader organizational level (first-line supervisor, middle manager, executive) was related to cluster or profile membership. This analysis was performed for 1) the nine-cluster solution based on the ED factors, 2) the 10-cluster solution based on the AP factors, 3) the three-profile solution based on the ED factors, and 4) the two-profile solution based on the AP factors. In each case, due to both the size of the tables as well as small expected cell counts, significance testing was done using Cramer's  $V$  statistic rather than the Pearson chi-square statistic. Of the four analyses, none of them was significant ( $V_1 = .30, p > .05$ ;  $V_2 = .25, p > .05$ ;  $V_3 = .16, p > .05$ ;  $V_4 = .14, p > .05$ ). Thus, neither cluster nor profile membership was related to leader organizational level.

### **Cluster Profile Differences in Destructive Leadership Ratings**

The fourth research question, regarding whether differences existed among personality profiles in terms of destructive leadership ratings, was addressed using analysis of variance (ANOVA) to test whether there were significant differences between cluster profiles on subordinate ratings of destructive leadership. For the nine-cluster solution based on the four empirically derived factors, an ANOVA revealed significant differences in PLIS scores between several of the clusters,  $F(8, 115) = 2.10, p = .04, \eta^2 = .13$ . Specifically, cluster 8 had a significantly higher average PLIS rating (i.e., leaders in cluster 8 tended to be rated as more destructive) compared to those in clusters 3, 5, 6, and 7. Hedges's  $g$ , a variation of Cohen's  $d$  that corrects for biases resulting from small sample sizes, was used to measure the

effect size of these group differences (Hedges & Olkin, 1985). The  $g$  values for the differences between cluster 8 and each of these four clusters (3, 5, 6, and 7) were 1.01, 0.92, 0.95, and 0.96, respectively. The magnitude of  $g$  is interpreted using Cohen's (1988) conventions of small (0.2), medium (0.5), and large (0.8); thus, a large effect size was found for each of these differences. No other differences in PLIS scores between ED clusters were significant. Figure 11 depicts the average standardized PLIS score for each of the nine clusters.

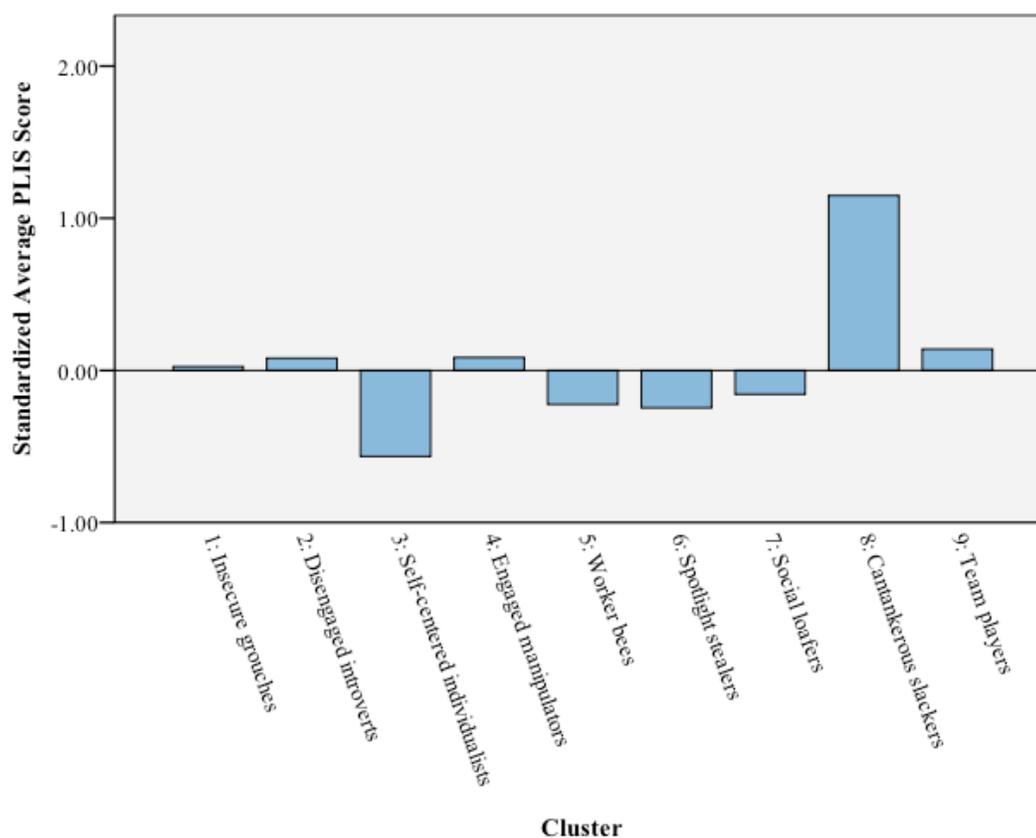


Figure 11. Standardized average PLIS scores for nine clusters (based on ED factors).

For the 10-cluster solution based on the seven *a priori* factors, an ANOVA revealed significant differences in PLIS scores between several of the clusters,  $F(9, 119) = 2.23, p =$

.03,  $\eta^2 = .14$ . Specifically, cluster 9 had a significantly higher average PLIS rating (i.e., leaders in cluster 9 tended to be rated as more destructive) compared to clusters 1, 3, 4, 5, 6, 7, and 10. Hedges's  $g$  values for the differences between cluster 9 and each of these seven clusters (1, 3, 4, 5, 6, 7, and 10) were 1.05, 0.94, 1.33, 0.92, 1.02, 0.98, and 1.39, respectively, indicating a large effect size for each of these differences. No other differences in PLIS scores between clusters were significant. Figure 12 depicts the average standardized PLIS score for each of the 10 clusters.

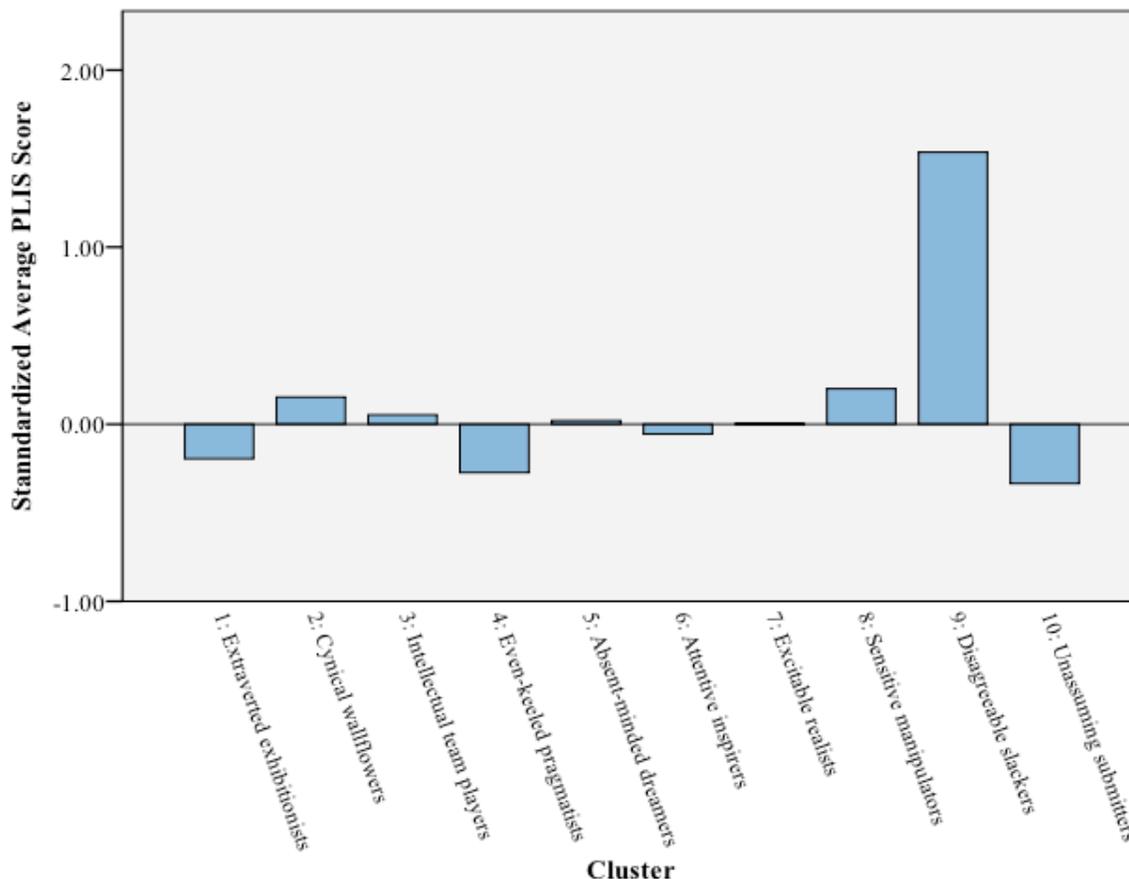


Figure 12. Standardized average PLIS scores for 10 clusters (based on AP factors).

For the three-profile LPA solution based on the empirically derived factors, there were no significant differences between profiles in terms of their average PLIS scores,  $F(2, 121) = 1.84, p > .05$ . In order to determine whether there were differences in PLIS scores between the two profiles in the LPA solution based on the *a priori* factors, an independent samples t-test was performed. This test indicated there was not a significant difference between the two profiles in terms of the average PLIS score,  $t(64.48) = -1.36, p > .05$ .

There were no differences between clusters or profiles in terms of the average DLQ:IH scores, regardless of the cluster or LPA solution assessed.

### **Discussion**

Despite the wealth of research in which the relationships among personality traits and leadership have been examined, there have been relatively few empirical studies conducted for the purpose of investigating the link between personality and destructive leadership specifically. Of the research that has been done in this area, all of it has used a variable-oriented approach, in which the personality traits—rather than the individual leaders—are the focus of the study. The present study contributes to the literature by empirically examining the role of leader personality in predicting subordinate perceptions of destructive leadership using a person-oriented approach.

The primary aim of the present study was to examine the personality profiles that exist among leaders and to determine the extent to which these profiles are related to, or predictive of, destructive leadership. This was done using hierarchical cluster analysis and latent profile analysis. Each analysis was first performed using leaders' scores on each of four empirically derived (ED) personality factors, and then a second time using leaders'

scores on each of seven *a priori* (AP) personality dimensions. The results of all four analyses are discussed below.

### **Cluster Analysis: Empirically Derived Dimensions**

Cluster analysis was performed using leaders' scores on each of the four empirically derived (ED) personality factors: Egocentrism/Narcissism, Power/Influence, Conscientiousness, and Agreeableness. The ED cluster analysis yielded nine clusters, which were then labeled based on their characteristic traits. In examining these clusters in relation to their respective destructive leadership ratings, cluster 8, the Cantankerous Slackers, demonstrated significantly higher PLIS ratings (i.e., were perceived to be significantly more destructive), on average, compared to four other clusters: Self-Centered Individualists (cluster 3), Worker Bees (cluster 5), Spotlight Stealers (cluster 6), and Social Loafers (cluster 7).

In examining these results, there are a few points worth noting. The cluster with the highest mean destructive leadership rating (Cantankerous Slackers) was characterized by the lowest agreeableness score (approximately two standard deviations below the mean), in addition to a very low conscientiousness score (more than one standard deviation below the mean). The only cluster that had a lower conscientiousness score was cluster 2 (Disengaged Introverts). Interestingly, these two clusters profiles were largely similar in both their shape (i.e., pattern of high/low dimension scores) and their elevation (i.e., overall height of profile). Both had slightly below average egocentrism/narcissism scores, slightly above average power/influence scores, and very low conscientiousness scores. The primary personality difference between these two groups was related to their agreeableness scores. The

Disengaged Introverts (cluster 2) scored, on average, just above the mean in agreeableness, whereas the mean agreeableness among the Cantankerous Slackers (cluster 8) was two standard deviations below the overall mean. In terms of their PLIS ratings, the Disengaged Introverts scored just above the mean, whereas the Cantankerous Slackers were approximately one standard deviation above the overall mean PLIS rating. While the difference between these two groups was not statistically significant, Hedges's  $g$  (effect size) value for the difference in PLIS ratings between these two cluster profiles would have been 0.63, suggesting that the lack of significance was likely due to small sample sizes.

In addition to examining the cluster profiles with the highest PLIS ratings, it is also informative to examine the clusters exhibiting significantly *lower* ratings of destructive leadership by comparison. As discussed, leaders in the Cantankerous Slackers cluster were rated as significantly more destructive than the Self-Centered Individualists (cluster 3), Worker Bees (cluster 5), Spotlight Stealers (cluster 6), and Social Loafers (cluster 7). So how do these personality types differ from the Cantankerous Slackers? In some cases, the answer is not surprising. For instance, the Worker Bees had the lowest egocentrism/narcissism score, the highest conscientiousness score, a low power/influence score, and a moderately high agreeableness score. The negative relationship between both agreeableness and conscientiousness with perceptions of destructive leadership is consistent with that demonstrated by the Cantankerous Slackers. Furthermore, the positive relationship between both egocentrism/narcissism and power/influence and DL seems to be consistent with prior research (e.g., Blair et al., 2008; Krasikova et al., 2013; Mumford et al., 2001).

An examination of the Spotlight Stealers, however, reveals somewhat contradictory findings. This group demonstrated below average agreeableness and conscientiousness scores—like the Cantankerous Slackers—in addition to the highest egocentrism/narcissism score and an above-average power/influence score. That they had significantly lower PLIS ratings compared to the Cantankerous Slackers suggests that agreeableness and conscientiousness alone may not predict destructive leadership. Furthermore, this suggests that leader egocentrism/narcissism and power/influence may actually be associated with perceptions of *less* destructive leadership, not more. One potential explanation for this is that certain aspects of these traits (e.g., risk-taking and grandiosity in the case of narcissism) may be considered more adaptive in leaders than they would be in non-leaders (Watts et al., 2013).

Cluster 3 (Self-Centered Individualists) is another cluster that had significantly lower PLIS ratings as compared to the Cantankerous Slackers. This group was characterized by the lowest power/influence score in conjunction with both a high egocentrism/narcissism score and a low agreeableness score. Cluster 7 (Social Loafers), the last cluster demonstrating significantly lower PLIS ratings compared to the Cantankerous Slackers, had below average scores on all personality dimensions with the exception of agreeableness, which was just above the mean.

Taken all together, the findings of the ED cluster analysis suggest that while below-average levels of agreeableness and conscientiousness may indeed be associated with perceptions of destructive leadership, relationships among egocentrism/narcissism, power/influence, and destructive leadership may be more nuanced. It may be the within-

person interaction of these traits that matters, rather than the traits in isolation. Put differently, the extent to which any particular trait is associated with destructive leadership may depend, at least in part, on the pattern and/or levels of other personality traits.

### **Cluster Analysis: *A Priori* Dimensions**

The cluster analysis was also performed using leaders' scores on each of the seven *a priori* (AP) personality dimensions: extraversion, openness to experience, neuroticism, conscientiousness, agreeableness, Machiavellianism, and narcissism. The AP cluster analysis yielded 10 clusters, which were again labeled based on their characteristic traits. Examination of these clusters revealed that leaders in cluster 9, the Disagreeable Slackers, demonstrated significantly higher PLIS ratings (i.e., were perceived as significantly more destructive) as compared to leaders in seven other clusters: Extraverted Exhibitionists (cluster 1), Intellectual Team Players (cluster 3), Even-Keeled Pragmatists (cluster 4), Absent-Minded Dreamers (cluster 5), Attentive Manipulators (cluster 6), Excitable Realists (cluster 7), and Unassuming Submitters (cluster 10).

The Disagreeable Slackers were characterized by the lowest agreeableness score (greater than two standard deviations below the mean) and the lowest conscientiousness score (greater than one standard deviation below the mean). This finding is consistent with the findings from the ED cluster analysis; in both analyses, the cluster characterized by a low conscientiousness score and a very low agreeableness score is the one associated with the highest destructive leadership ratings. This is notable in light of Olls's (2014) study, in which a zero-order relationship between agreeableness (or conscientiousness) and

perceptions of destructive leadership was *not* detected. Thus, had only the zero-order correlations been examined, these findings would have been overlooked.

Interestingly, and in contrast to prior theoretical and empirical work (e.g., Blair et al., 2008; Krasikova et al., 2013; Mumford et al., 2001) suggesting a link between narcissism and/or Machiavellianism with destructive leadership, both of the destructive clusters exhibited rather unremarkable levels of both narcissism and Machiavellianism. For the Cantankerous Slackers identified in the ED analyses, the mean egocentrism/narcissism score was just below the mean, while the power/influence score was just above the mean. For the Disagreeable Slackers identified in the AP analyses, the narcissism score was just above the mean while the Machiavellianism score was just below it.

For the seven clusters that demonstrated significantly *lower* PLIS ratings as compared to the Disagreeable Slackers (AP analysis), there were some interesting findings. Cluster 1 (Extraverted Exhibitionists) was characterized by the highest extraversion score and the highest narcissism score, the latter of which was nearly two standard deviations above the mean. Cluster 3 (Intellectual Team Players) shared the highest extraversion score with Cluster 1. Cluster 3 also had the lowest Machiavellianism score and the highest openness score. Cluster 4 (Even-Keeled Pragmatists) had the lowest neuroticism score and a below-average openness score. Cluster 5 (Absent-Minded Dreamers) was characterized by low conscientiousness and neuroticism as well as above-average openness. Cluster 6 (Attentive Manipulators) had the highest conscientiousness score, as well as high scores in openness, Machiavellianism, and narcissism. Cluster 7 (Excitable Realists) had the lowest openness score, moderately high neuroticism, and slightly above-average agreeableness. Cluster 10

(Unassuming Submitters) had below average Machiavellianism, narcissism, and extraversion, as well as above average agreeableness and conscientiousness. Based on the findings from the ED cluster analysis, it is not surprising that the Unassuming Submitters—who were above average in agreeableness and conscientiousness—were perceived as significantly less destructive, on average, than their Disagreeable Slacker counterparts.

As in the ED cluster analysis, the remaining clusters with lower PLIS scores suggest more nuanced relationships among personality traits and destructive leadership. For instance, of the clusters identified in the AP analysis, the Extraverted Exhibitionists had the highest narcissism and extraversion scores, but were rated as generally less destructive than the Disagreeable Slackers. The Absent-Minded Dreamers and the Attentive Manipulators both had low destructive leadership scores compared to the Disagreeable Slackers. Interestingly, the Absent-Minded Dreamers had a conscientiousness score that was approximately one standard deviation below average, whereas the Attentive Manipulators had the highest conscientiousness score among the 10 clusters. Overall, the results are similar to those observed with the cluster analysis based on the empirically derived personality factors. That is to say, low levels of agreeableness and conscientiousness appear to be associated with higher ratings of destructive leadership. Beyond that, the relationships among personality traits and destructive leadership may depend not just on the level of the traits, but also on the pattern of traits observed.

### **Latent Profile Analyses**

A secondary aim of the study was to compare the clusters resulting from the hierarchical cluster analysis with the profiles resulting from the latent profile analysis.

A direct comparison of the results of the cluster analysis to those of the latent profile analysis is difficult to accomplish, however, largely because the results are so incongruent. Whereas the ED cluster analysis yielded nine clusters, the LPA using the same participants yielded just three latent profiles. Because there were so few latent profiles with which to compare, it is interesting to note that cluster 2 (Disengaged Introverts) and latent profile 1 (Careless Loners) are nearly identical in shape. Both are characterized by slightly below average egocentrism/narcissism scores, slightly above average power/influence scores, and very low conscientiousness scores. The two only differ in agreeableness: average agreeableness is slightly above average in cluster 2, but slightly below average in latent profile 1.

Comparing the cluster analysis and LPA based on the *a priori* factors presents similar challenges: the cluster analysis revealed 10 clusters, whereas the LPA yielded just two latent profiles. Unlike in the ED analyses, there were no clusters that appeared to resemble either of the latent profiles. Interestingly, the two latent profiles (Reserved Altruists and Self-Centered Extraverts) are virtually mirror opposites of one another. However, they are both characterized by personality trait scores that generally hover around the overall mean: the most extreme score for the Reserved Altruists is extraversion, which is not quite two-thirds of a standard deviation below the mean. For the Self-Centered Extraverts, extraversion is again the most extreme score at just over one standard deviation above the mean. For the Reserved Altruists, openness is slightly below average while neuroticism is slightly above average; for the Self-Centered Extraverts, the reverse is true. Machiavellianism is slightly above the mean for Reserved Altruists and slightly below the mean for Self-Centered Extraverts. Narcissism is moderately below average in Reserved Altruists and moderately

above average in Self-Centered Extraverts. Thus, if extreme scores on agreeableness and conscientiousness are associated with greater perceptions of destructive leadership—as demonstrated by the Cantankerous Slackers (ED cluster analysis) and the Disagreeable Slackers (AP cluster analysis)—it is not surprising that these two latent profiles, characterized by moderate scores across all dimensions, did not differ in their destructive leadership ratings.

### **Comparison of Person-Oriented Approaches**

In addition to addressing the four stated research questions, a secondary objective of this study was to compare the findings from the two person-oriented approaches: cluster analysis and latent profile analysis. Whereas the cluster analyses yielded nine (ED) or 10 (AP) clusters, the latent profile analyses yielded just two (AP) or three (ED) latent profiles. Because the present study used real data collected from leaders and their subordinates—rather than simulated data with known properties—a definitive claim as to which analysis uncovered the “true” personality profiles that exist among leaders is not warranted. Researchers interested in ascertaining which approach best captures the true state of affairs are encouraged to perform such a comparison using simulated data. As demonstrated by Nylund et al. (2013) among others, simulated data can be quite useful in determining the conditions under which certain results are most likely to be observed. It may be the case that the analytic methods used in the present study could have led to very different conclusions depending on the properties of the data examined.

That being said, there was a clear difference in how the two analyses performed with respect to externally validating the clusters (profiles) resulting from each. Each of the two

cluster analyses identified a group of leaders who were rated, on average, as significantly more destructive than leaders in several of the other clusters. In both cases, this destructive group was characterized by very low agreeableness scores (greater than two standard deviations below the mean) and low conscientiousness scores (greater than one standard deviation below the mean). In contrast to these findings, neither latent profile analysis identified profiles that differed from one another in their destructive leadership ratings. Thus, with respect to the final objective of the present study, the cluster analysis far outperformed the latent profile analysis in its ability to identify a distinct personality profile that was found to have significantly higher destructive leadership ratings.

**Addressing criticisms of cluster analysis.** In light of the recent trend of using model-based approaches (e.g., LPA) in favor of techniques that group cases based on the degree of similarity between cases and existing subgroups (e.g., cluster analysis), the findings of the present study have important implications. Researchers have argued that model-based approaches have clear advantages over techniques such as cluster analysis. For instance, Meyer and colleagues (2013) argued that latent profile analysis relies on more objective decision points to determine the most appropriate number of profiles as compared to cluster analysis. This may be true in some cases, but is not necessarily so. In the present study, the decision criteria used to determine the most appropriate number of subgroups in the cluster analysis was just as objective as that used in the latent profile analysis, if not more so. The decision regarding the optimal solution (i.e., number of clusters to retain) was based on the error sum of squares (ESS) values for each possible cluster solution. The determination of which data point(s) and/or cluster(s) were fused at each iteration of that process was based on

their similarity to one another, as measured by the squared Euclidean distance (SED) between them. The most subjective step of this process is the examination of the ESS plot to determine the point at which a large increase in error occurred, indicating the fusion of two sufficiently dissimilar clusters. However, it seems that this decision is precisely as subjective as the use of a scree plot in factor analysis, which is itself a model-based approach. In the present study, there were several points of inflection in the ESS plot, indicating that several cluster solutions could have been viable. This decision point was addressed by calculating the homogeneity coefficient (HC), an index of similarity, for all clusters resulting from each of the viable solutions and selecting the solution that combined low HC values (ideally less than one) with parsimony. Such a solution minimizes within-cluster differences and maximizes between-cluster differences. Overall, while there were several decision points throughout this process, each was addressed using objective criteria. There was, in fact, little room for subjective judgment in this analysis.

**Model selection criteria.** Despite claims that latent profile analysis relies on more objective criteria to determine the optimal solution (e.g., Meyer et al., 2013), this is arguably not the case. Similar to cluster analysis, LPA is conducted by comparing successive models, beginning with a two-profile model. Unlike cluster analysis, however, LPA does not provide a single index of within-group homogeneity with which to compare the potential solutions. Using guidelines suggested by Nylund et al. (2007), fit was assessed for each model using the Bayesian Information Criterion (BIC) and the bootstrapped likelihood ratio test (BLRT). According to Nylund et al. (2007), the optimal solution demonstrates the lowest BIC value, a significant BLRT, no profiles with a small number of cases, and clearly distinct profiles (as

defined by a high probability that each case has been correctly assigned to that profile, and a low probability that they have not). In the ED LPA, there was no solution that met all of these criteria. Although the two-profile solution had the lowest BIC value, the BLRT was significant in both the two- and three-profile models, indicating a significant improvement in fit in the three-profile model compared to the two-profile model. Consequently, the three-profile model was selected, even though it did not meet the “lowest BIC” criterion. For the AP LPA, issues of non-convergence arose with the addition of a third profile. Thus, there wasn’t an actual “determination” of the most appropriate model; the two-profile model was the only option. Despite this being the only possible solution, it does seem somewhat unexpected that this LPA—which was based on seven indicator variables—would result in fewer latent profiles compared to the LPA based on just four indicator variables. Overall, an examination of the decision points used in both analyses does not suggest that the results of the latent profile analysis are based on more objective criteria than those of the cluster analysis; if anything, the reverse is true. Taken all together, the current results seem to suggest that cluster analysis should remain a viable alternative to model-based approaches such as LPA.

**Predictive validity.** In terms of the extent to which either analysis could be used to predict differences in perceptions of destructive leadership, the ED cluster analysis revealed significant differences in PLIS scores between cluster profiles; there were no such differences observed among the three profiles resulting from the ED latent profile analysis. This may be in part related to the relatively small amount of variation in trait scores among the latent profiles. For instance, the difference in agreeableness scores between the latent

profile with the highest agreeableness score (Friendly Organizers) and the lowest agreeableness score (Careless Loners) is less than one standard deviation; whereas the same comparison among the ED clusters yields a difference of more than three standard deviations between the most agreeable cluster (Team Players) and the least (Cantankerous Slackers).

Similarly, while results from the AP cluster analysis indicated significant differences in average PLIS scores between cluster profiles, no such differences were observed between the two profiles resulting from the AP latent profile analysis. Again, this may be related to the small differences in conscientiousness and agreeableness scores across the latent profiles. The standardized scores for both traits are nearly exactly zero for both AP latent profiles (Reserved Altruists and Self-Centered Extraverts); the difference in conscientiousness scores between the two profiles is 0.06 standard deviations; for agreeableness scores, the difference is just 0.02 standard deviations. The same comparison for the AP cluster analysis yields a difference of nearly two standard deviations for conscientiousness and three standard deviations for agreeableness. If markedly below average levels of agreeableness and conscientiousness are in fact important personality predictors of perceptions of destructive leadership, it is no surprise that these latent profiles did not differ in their PLIS scores.

### **Cluster Differences in Ratings of Destructive Leadership**

Overall, the present study was successful in achieving its objectives. First, nine or 10 distinct personality profile groups were identified among leaders, depending on whether empirically derived or *a priori* personality dimensions were used. Second, in both cluster analyses, there was a personality profile associated with significantly higher PLIS ratings, indicating significantly greater subordinate perceptions of destructive leadership. In both

cases, the cluster that was perceived to be the most destructive was also the smallest: the Cantankerous Slackers (ED cluster analysis) included eight leaders (6% of the total), while the Disagreeable Slackers (AP cluster analysis) included six leaders (5% of the total). In some cases, a small cluster may not represent a “true” personality profile in the greater population but may instead constitute the “leftovers,” i.e., those remaining once all other individuals in the sample had been classified. However, the homogeneity coefficient in each was not particularly large (0.85 for Cantankerous Slackers and 1.09 for Disagreeable Slackers), indicating that these personality profiles are largely homogenous. Thus, this is probably not a case of “leftover” cases being lumped together; these clusters likely do exist in the population but—fortunately—are not nearly as prevalent as the others.

### **Strengths and Limitations**

There were several strengths of this study. First, leaders and their subordinates were used as participants. Too often, leadership research is conducted using non-leader samples (e.g., undergraduate students), but in order to justify generalizing findings to leader populations, the importance of using current, full-time leaders cannot be overstated. Additionally, leader participants were recruited from many organizations, meaning that contextual (i.e., organizational) confounds were less likely to pose an issue. Along those same lines, leader participants were nearly evenly split across three organizational levels: first-line supervisor, middle manager, and executive, which means the results herein are not limited to a particular level of leader.

Second, the leaders’ subordinates provided ratings of destructive leadership for the focal leaders. Given the nature of the construct and the inclination for destructive leaders to

lie, cheat, and/or manipulate, it was necessary to collect observer ratings of DL.

Subordinates seem to be a good choice for such ratings as they tend to have more interaction with their managers than do peers, and are presumably more likely to witness a manager's "bad behavior" as compared to the manager's own supervisor.

Third, multiple measures were used to assess subordinate perceptions of destructive leadership: the Perceived Leader Integrity Scale (PLIS) and the Destructive Leadership Questionnaire (DLQ). The PLIS is a more established measure, whereas the DLQ is newer and not as well validated. It is worth noting that the significant findings in the present study are based entirely on the PLIS, rather than the DLQ. While an attempt was made to externally validate the clusters and profiles using both measures, there were no differences among the clusters (or profiles) with respect to DLQ:IH ratings; the differences observed were only found with respect to PLIS ratings. In general, the full DLQ seems to primarily capture poor performance and therefore may not be the best measure of destructive leadership. However, even when using the DLQ: Interpersonal Harshness subscale—comprising the DLQ items that were most consistent with destructive leadership—no differences were found between clusters. Thus, the DLQ may need further refinement and validation work before it can be used as a reliable, valid measure of destructive leadership.

As with any single study, there were several limitations that should be taken into account. First, the response rate was rather low, with approximately 14% of leaders contacted completing the survey and providing contact information for direct reports, and thus the overall sample size was somewhat small. Furthermore, although the sample included leaders from a variety of organizations, leaders from state and/or government

organizations were over-represented. This was the direct result of recruitment methods: for the most part, leader contact information was obtained from publically available sources and typically only state or government organizations provide such information. Therefore, the results of the present study may have been different if more leaders from privately held organizations had participated. Along these lines, it is likely that the leaders who did opt to participate do not represent the full spectrum of destructive leadership. It seems reasonable to suggest that highly destructive leaders, who are characterized by selfish behavior, may not be particularly inclined to participate in a research study for which they have no incentive to do so. Another limitation is related to the low base rate of destructive leadership. The base rate of low integrity managers—characterized by those “at risk for behaving badly”—is estimated to be in the 10% to 20% range (Kaiser & Hogan, 2010, p. 231). Thus, given the size of the sample used in the present study, it is not surprising that the most destructive cluster contained just 8 (in the ED cluster analysis) or 6 (in the AP cluster analysis) individuals. However, because the most destructive cluster was relatively small in both instances, there is greater potential for sampling error than would have been the case for a larger cluster.

Another potential limitation was the method of selecting direct report participants. Although recruitment was designed in such a way as to allow direct reports to participate and then invite their supervisors to participate, this was very infrequent. And of the few direct reports who did provide contact information for their supervisor, none of those leaders ended up participating in the study. Thus, leader participants became the “gatekeepers” for the direct reports who ultimately provided ratings for them. The leaders were informed only that

their direct reports would be asked to provide ratings about them and were then asked to provide contact information for one to five direct reports for this purpose. It is unlikely that leaders would provide contact information for subordinates with whom they did not have a positive relationship. Likewise, it is reasonable to assume that subordinates who did not have a positive relationship with their manager may have been less inclined to participate in a study about that manager. The 135 leaders who participated in the study provided contact information for a combined 424 subordinates. Of these, 242 subordinates (58%) completed the survey. While this is a substantially higher response rate than demonstrated by the leaders, it does raise the question of whether the nonrespondent 42% of subordinates would have provided qualitatively different ratings compared to those who did participate. Until researchers are given the opportunity to select which direct report(s) will provide ratings for each leader participant, the selection bias issue will likely continue to plague research investigating destructive leadership or similar constructs. It is also important to note that the direct report participants—like the focal managers—represented various levels within their respective organization. While this was arguably a strength for the leader participants, the same may not be true for the direct reports. While subordinates were not asked to provide their own organizational level, one must assume that they included individual contributors, first-line supervisors, and middle managers, given the composition of the focal leaders. It is possible that those subordinates who were leaders themselves may have responded differently to questions about destructive leadership, compared to their individual contributor counterparts.

## Conclusions and Future Directions

To the best of the author's knowledge, this study is the first to examine personality predictors of destructive leadership using a pattern-oriented approach. In contrast to a variable-oriented analysis (e.g., Olls, 2014), the pattern-oriented analyses used in the present study offered a more nuanced view of the relationship between personality and perceptions of destructive leadership. Results of the present study suggest that possessing well below average levels of both agreeableness and conscientiousness are likely to be associated with greater perceptions of destructive leadership. Furthermore, the personality traits such as narcissism and Machiavellianism (and their empirically derived counterparts), may not actually predict destructive leadership as suggested by previous research that utilized variable-oriented analyses (e.g., Blair et al., 2008; Krasikova et al., 2013; Mumford et al., 2001). This is demonstrated by the finding that the Spotlight Stealers, characterized by below average agreeableness and conscientiousness as well as high egocentrism/narcissism and power/influence scores, were perceived as significantly *less* destructive than the Cantankerous Slackers. Similarly, in the AP cluster analysis, the Extraverted Exhibitionists demonstrated the highest extraversion and narcissism scores, but received significantly lower PLIS ratings as compared to the Disagreeable Slackers.

Overall, it appears that given the nuanced relationships that exist among personality traits and perceptions of destructive leadership, in addition to the complex, multidimensional nature of personality itself, person-oriented analyses may offer a more informative approach as compared to a variable-oriented one.

Some recommendations for future research have already been noted, but it seems that the next step for researchers in this area would be to continue using pattern-oriented approaches, like cluster analysis, to determine whether these cluster profiles generalize to other (leader and non-leader) populations and ascertain the extent to which these profiles may be used to predict important outcomes such as destructive leadership. Specifically, additional research utilizing larger samples would allow for cross-validation to confirm the results of the present study.

Increasingly, as researchers examine contextual and situational factors that may predict destructive leadership, it would be useful to consider potential personality-profile-by-context interactions that could better predict such outcomes than either one could do on its own. While there were a number of cluster profiles that fell somewhere “in the middle” (i.e., did not demonstrate significantly high or low destructive leadership ratings), it may be that leaders in these clusters may be more or less inclined to behave destructively depending on the contextual or situational variables. This would be in-line with research suggesting that individuals having more extreme personality trait scores tend to exhibit more extreme (i.e., destructive) behavior regardless of the situation, whereas those with midrange scores are more likely to exhibit behavior that varies by context (Schuman & Presser, 1981).

Indeed, there are several recent studies that demonstrate the role of the environment in destructive leadership. For instance, Hoffman et al. (2013) found a significant interaction between narcissism and ethical context in predicting ethical leadership in highly ethical contexts. In a study of U.S. Army soldiers in Iraq, Schaubroeck and colleagues (2012) found that unit-level ethical culture mediated the relationship between unit-level ethical leadership

and both unit-level unethical behavior as well as individuals' intentions to report unethical conduct. Finally, Brown and Treviño (2014) found that leaders who had ethical role models during their careers tended to receive more favorable ethical leadership ratings from their subordinates. Taken all together, there is strong evidence to suggest that leaders may be more or less inclined to engage in destructive behavior depending on their work environment. Thus, while destructive leadership may not be altogether avoided with selection alone, it would seem to fall well within the realm of organizational development. In instances where changing the ethical context of an organization is not feasible, leadership coaching that focuses on self-awareness—and ultimately, on behavior change—may be a useful tool for preventing or mitigating destructive leadership behaviors.

With respect to the present study, for those individuals with personality trait patterns similar to those in the more destructive cluster profiles (e.g., Cantankerous Slackers, Disagreeable Slackers), it would be useful to determine whether there are mitigating factors (e.g., more oversight, organizational checks and balances, greater accountability) that could curtail destructive tendencies. More research in this area is likely to benefit organizations seeking to prevent or ameliorate destructive leadership.

Ultimately, for researchers interested in predictors of destructive leadership, the use of person-oriented analyses constitute a useful complement to the traditional variable-oriented approach. The extant research in this area has been plagued by null—or at best, inconsistent—findings when examining the link between personality traits and destructive leadership (or related constructs). However, by using a pattern-oriented approach, it appears that personality profile may indeed be a useful predictor of destructive leadership.

## References

- Aasland, M. S., Skogstad, A., & Einarsen, S. (2008). The dark side: Defining destructive leadership behaviour. *Organisations and People*, *15*(3), 19–26.
- Aasland, M. S., Skogstad, A., Notelaers, G., Nielsen, M. B., & Einarsen, S. (2010). The prevalence of destructive leadership behaviour. *British Journal of Management*, *21*(2), 438–452. <https://doi.org/10.1111/j.1467-8551.2009.00672.x>
- Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the Narcissistic Personality Inventory really measure? *Assessment*, *18*(1), 67–87.
- Aldenderfer, M. S., & Blashfield, R. K. (1984). *Cluster analysis*. Newbury Park: Sage Publications,. Retrieved from <http://catalog.lib.ncsu.edu/record/NCSU641895>
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV* (4th ed.). Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR* (4th ed., text revision). Washington, DC: American Psychiatric Association.
- Antes, A. L., Brown, R. P., Murphy, S. T., Waples, E. P., Mumford, M. D., Connelly, S., & Devenport, L. D. (2007). Personality and ethical decision-making in research: The role of perceptions of self and others. *Journal of Empirical Research on Human Research Ethics: An International Journal*, *2*(4), 15–34. <https://doi.org/10.1525/jer.2007.2.4.15>

- Ashforth, B. (1994). Petty tyranny in organizations. *Human Relations*, *47*(7), 755–778.
- Bamberger, P. A., & Bacharach, S. B. (2006). Abusive supervision and subordinate problem drinking: Taking resistance, stress and subordinate personality into account. *Human Relations*, *59*(6), 723–752.
- Beauducel, A., Brocke, B., & Leue, A. (2006). Energetical bases of extraversion: Effort, arousal, EEG, and performance. *International Journal of Psychophysiology*, *62*(2), 212–223. <https://doi.org/10.1016/j.ijpsycho.2005.12.001>
- Benson, M. J., & Hogan, R. (2008). How dark side leadership personality destroys trust and degrades organisational effectiveness. *Organisations and People*, *15*(3), 10–18.
- Bergman, L. R. (2000). The application of a person-oriented approach: Types and clusters. In L. R. Bergman, R. B. Cairns, L.-G. Nilsson, & L. Nystedt (Eds.), *Developmental science and the holistic approach* (pp. 137–154). Mahwah, NJ: Erlbaum.
- Bergman, L. R., & El-Khoury, B. M. (2002). SLEIPNER (Version 2.1). [Computer software]. Stockholm, Sweden.
- Bergman, L. R., & Trost, K. (2006). The person-oriented versus the variable-oriented approach: Are they complementary, opposites, or exploring different worlds? *Merrill-Palmer Quarterly*, *52*(3), 601–632. <https://doi.org/10.1353/mpq.2006.0023>
- Bernardin, H. J., Cooke, D. K., & Villanova, P. (2000). Conscientiousness and agreeableness as predictors of rating leniency. *Journal of Applied Psychology*, *85*(2), 232–236. <https://doi.org/10.1037/0021-9010.85.2.232>

- Berry, C. M., Ones, D. S., & Sackett, P. R. (2007). Interpersonal deviance, organizational deviance, and their common correlates: A review and meta-analysis. *Journal of Applied Psychology, 92*(2), 410–424. <https://doi.org/10.1037/0021-9010.92.2.410>
- Blair, C. A., Hoffman, B. J., & Helland, K. R. (2008). Narcissism in organizations: A multisource appraisal reflects different perspectives. *Human Performance, 21*(3), 254. <https://doi.org/10.1080/08959280802137705>
- Blickle, G., Schlegel, A., Fassbender, P., & Klein, U. (2006). Some personality correlates of business white-collar crime. *Applied Psychology, 55*(2), 220–233. <https://doi.org/10.1111/j.1464-0597.2006.00226.x>
- Borgen, F. H., & Barnett, D. C. (1987). Applying cluster analysis in counseling psychology research. *Journal of Counseling Psychology, 34*(4), 456–468. <https://doi.org/10.1037/0022-0167.34.4.456>
- Brown, M. E., & Treviño, L. K. (2014). Do role models matter? An investigation of role modeling as an antecedent of perceived ethical leadership. *Journal of Business Ethics, 122*(4), 587–598. <https://doi.org/10.1007/s10551-013-1769-0>
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes, 97*(2), 117–134. <https://doi.org/10.1016/j.obhdp.2005.03.002>
- Brunell, A. B., Gentry, W. A., Campbell, W. K., Hoffman, B. J., Kuhnert, K. W., & DeMarree, K. G. (2008). Leader emergence: The case of the narcissistic leader. *Personality and Social Psychology Bulletin, 34*(12), 1663–1676.

- Burns, J. M. (2003). *Transforming leadership: A new pursuit of happiness*. New York: Atlantic Monthly Press.
- Campbell, S., & Campbell, W. K. (2009). On the self-regulatory dynamics created by the peculiar benefits and costs of narcissism: A contextual reinforcement model and examination of leadership. *Self and Identity*, 8(2), 214.  
<https://doi.org/10.1080/15298860802505129>
- Christie, R. (1970). Scale construction. In R. Christie & F. L. Geis (Eds.), *Studies in Machiavellianism* (pp. 10–34). New York: Academic Press.
- Christie, R., & Geis, F. L. (1970). *Studies in Machiavellianism*. New York: Academic Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, N.J.: L. Erlbaum Associates,.
- Cohen, W. A. (2010). *Drucker on leadership: New lessons from the father of modern management* (1st ed). San Francisco, CA: Jossey-Bass.
- Collins, L. M., Fidler, P. L., Wugalter, S. E., & Long, J. D. (1993). Goodness-of-Fit Testing for Latent Class Models. *Multivariate Behavioral Research*, 28(3), 375–389.  
[https://doi.org/10.1207/s15327906mbr2803\\_4](https://doi.org/10.1207/s15327906mbr2803_4)
- Conger, J. A. (1990). The dark side of leadership. *Organizational Dynamics*, 19(2), 44–55.
- Conger, J. A., & Kanungo, R. N. (1998). *Charismatic leadership in organizations*. Thousand Oaks, CA: Sage Publications.
- Corry, N., Merritt, R. D., Mrug, S., & Pamp, B. (2008). The factor structure of the Narcissistic Personality Inventory. *Journal of Personality Assessment*, 90(6), 593.  
<https://doi.org/10.1080/00223890802388590>

- Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Craig, S. B. (2008, April). *The problem with leadership research*. Presented at the annual conference of the Society for Industrial and Organizational Psychology, San Francisco, CA.
- Craig, S. B., & Gustafson, S. B. (1998). Perceived leader integrity scale: An instrument for assessing employee perceptions of leader integrity. *The Leadership Quarterly*, 9(2), 127–145. [https://doi.org/10.1016/S1048-9843\(98\)90001-7](https://doi.org/10.1016/S1048-9843(98)90001-7)
- Craig, S. B., & Kaiser, R. B. (2012). Destructive leadership. In M. G. Rumsey (Ed.), *The Oxford handbook of leadership* (pp. 439–454). Oxford: Oxford University Press.
- Cronbach, L. J., & Gleser, G. C. (1953). Assessing similarity between profiles. *Psychological Bulletin*, 50(6), 456–473. <https://doi.org/10.1037/h0057173>
- Dasborough, M. T., & Ashkanasy, N. M. (2002). Emotion and attribution of intentionality in leader–member relationships. *The Leadership Quarterly*, 13(5), 615–634. [https://doi.org/10.1016/S1048-9843\(02\)00147-9](https://doi.org/10.1016/S1048-9843(02)00147-9)
- Deluga, R. J. (2001). American presidential Machiavellianism: Implications for charismatic leadership and rated performance. *The Leadership Quarterly*, 12(3), 339–363. [https://doi.org/10.1016/S1048-9843\(01\)00082-0](https://doi.org/10.1016/S1048-9843(01)00082-0)
- Detert, J. R., Treviño, L. K., Burris, E. R., & Andiappan, M. (2007). Managerial modes of influence and counterproductivity in organizations: A longitudinal business-unit-level

- investigation. *Journal of Applied Psychology*, 92(4), 993–1005.  
<https://doi.org/10.1037/0021-9010.92.4.993>
- Dienesch, R. M., & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further development. *The Academy of Management Review*, 11(3), 618–634. <https://doi.org/10.2307/258314>
- Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The Mini-IPIP Scales: Tiny-yet-effective measures of the Big Five factors of personality. *Psychological Assessment*, 18(2), 192–203. <https://doi.org/10.1037/1040-3590.18.2.192>
- Duffy, M. K., Ganster, D. C., & Pagon, M. (2002). Social undermining in the workplace. *The Academy of Management Journal*, 45(2), 331–351. <https://doi.org/10.2307/3069350>
- Einarsen, S., Aasland, M. S., & Skogstad, A. (2007). Destructive leadership behaviour: A definition and conceptual model. *The Leadership Quarterly*, 18(3), 207–216.  
<https://doi.org/10.1016/j.leaqua.2007.03.002>
- Emmons, R. A. (1984). Factor analysis and construct validity of the Narcissistic Personality Inventory. *Journal of Personality Assessment*, 48(3), 291.
- Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology*, 52(1), 11–17. <https://doi.org/10.1037/0022-3514.52.1.11>
- Foti, R. J., & Hauenstein, N. M. A. (2007). Pattern and variable approaches in leadership emergence and effectiveness. *Journal of Applied Psychology*, 92(2), 347.
- Galvin, B. M., Waldman, D. A., & Balthazard, P. (2010). Visionary communication qualities as mediators of the relationship between narcissism and attributions of leader charisma. *Personnel Psychology*, 63(3), 509–537.

- Goldberg, L. R. (1999). A broad-bandwidth, public-domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. J. Deary, F. DeFruyt, & F. Ostendorf (Eds.), *Personality psychology in Europe* (Vol. 7, pp. 7–28). Tilburg, The Netherlands: Tilburg University Press.
- Goldman, A. (2006). High toxicity leadership. *Journal of Managerial Psychology*, *21*(8), 733. <https://doi.org/10.1108/02683940610713262>
- Graziano, W. G., Jensen-Campbell, L. A., & Hair, E. C. (1996). Perceiving interpersonal conflict and reacting to it: The case for agreeableness. *Journal of Personality and Social Psychology*, *70*(4), 820–835. <https://doi.org/10.1037/0022-3514.70.4.820>
- Grijalva, E., Harms, P. D., Newman, D. A., Gaddis, B. H., & Fraley, R. C. (2015). Narcissism and leadership: A meta-analytic review of linear and nonlinear relationships. *Personnel Psychology*, *68*(1), 1–47. <https://doi.org/10.1111/peps.12072>
- Gustafson, S. B., & Ritzer, D. R. (1995). The dark side of normal: A psychopathy-linked-pattern called aberrant self-promotion. *European Journal of Personality*, *9*(3), 147–183.
- Hagenaars, J. A., & McCutcheon, A. L. (Eds.). (2002). *Applied latent class analysis models*. New York: Cambridge University Press.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *The Academy of Management Review*, *9*(2), 193–206. <https://doi.org/10.2307/258434>
- Harvey, P., Stoner, J., Hochwarter, W., & Kacmar, C. (2007). Coping with abusive supervision: The neutralizing effects of ingratiation and positive affect on negative

- employee outcomes. *The Leadership Quarterly*, 18(3), 264–280.  
<https://doi.org/10.1016/j.leaqua.2007.03.008>
- Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. Orlando: Academic Press.
- Hoffman, B. J., Strang, S. E., Kuhnert, K. W., Campbell, W. K., Kennedy, C. L., & LoPilato, A. C. (2013). Leader narcissism and ethical context effects on ethical leadership and leader effectiveness. *Journal of Leadership & Organizational Studies*, 20(1), 25–37.  
<https://doi.org/10.1177/1548051812465891>
- Hoffman, B. J., Woehr, D. J., Maldagen-Youngjohn, R., & Lyons, B. D. (2011). Great man or great myth? A quantitative review of the relationship between individual differences and leader effectiveness. *Journal of Occupational and Organizational Psychology*, 84(2), 347–381. <https://doi.org/10.1348/096317909X485207>
- Hogan, J., Hogan, R., & Kaiser, R. B. (2011). Management derailment. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology* (1st ed., Vol. 3, Maintaining, expanding, and contracting the organization). Washington, D.C.: American Psychological Association.
- Hogan, R. (2007). *Personality and the fate of organizations*. Mahwah, NJ: Erlbaum.
- Hogan, R., Curphy, G. J., & Hogan, J. (1994). What we know about leadership: Effectiveness and personality. *American Psychologist*, 49(6), 493–504.  
<https://doi.org/10.1037/0003-066X.49.6.493>
- Hogan, R., & Hogan, J. (1997). *Hogan Development Survey manual*. Tulsa, OK: Hogan Assessment Systems.

- Hogan, R., & Hogan, J. (2001). Assessing leadership: A view from the dark side. *International Journal of Selection and Assessment, 9*(1-2), 40–51.  
<https://doi.org/10.1111/1468-2389.00162>
- Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology, 9*(2), 169–180. <https://doi.org/10.1037/1089-2680.9.2.169>
- Hogan, R., Raskin, R., & Fazzini, D. (1990). The dark side of charisma. In K. E. Clark & M. B. Clark (Eds.), *Measures of leadership* (pp. 343–354). West Orange, NJ: Leadership Library of America, Inc.
- Hoobler, J. M., & Brass, D. J. (2006). Abusive supervision and family undermining as displaced aggression. *Journal of Applied Psychology, 91*(5), 1125–1133.  
<https://doi.org/10.1037/0021-9010.91.5.1125>
- House, R. J., & Howell, J. M. (1992). Personality and charismatic leadership. *The Leadership Quarterly, 3*, 81–108.
- Hunter, S. T. (2012). (un)ethical leadership and identity: What did we learn and where do we go from here? *Journal of Business Ethics, 107*(1), 79–87.  
<https://doi.org/10.1007/s10551-012-1301-y>
- IBM Corp. (2010). IBM SPSS (Version Version 19.0). Armonk, NY: IBM Corp.
- James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology, 69*(1), 85–98. <https://doi.org/10.1037/0021-9010.69.1.85>
- James, L. R., Demaree, R. G., & Wolf, G. (1993). An assessment of within-group interrater agreement. *Journal of Applied Psychology, 78*(2), 306–309.

- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits--self-esteem, generalized self-efficacy, locus of control, and emotional stability--with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, *86*(1), 80–92. <https://doi.org/10.1037/0021-9010.86.1.80>
- Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, *87*(4), 765–780. <https://doi.org/10.1037/0021-9010.87.4.765>
- Judge, T. A., & LePine, J. A. (2007). The bright and dark sides of personality: Implications for personnel selection in individual and team contexts. In J. Langan-Fox, C. Cooper, & R. Klimoski (Eds.), *Research companion to the dysfunctional workplace: Management challenges and symptoms* (pp. 332–355). Cheltenham, UK: Edward Elgar Publishing.
- Judge, T. A., LePine, J. A., & Rich, B. L. (2006). Loving yourself abundantly: Relationship of the narcissistic personality to self- and other perceptions of workplace deviance, leadership, and task and contextual performance. *Journal of Applied Psychology*, *91*(4), 762–776. <https://doi.org/10.1037/0021-9010.91.4.762>
- Judge, T. A., Piccolo, R. F., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The Leadership Quarterly*, *20*(6), 855–875. <https://doi.org/10.1016/j.leaqua.2009.09.004>
- Kaiser, R. B., & Craig, S. B. (2014). Destructive leadership in and of organizations. In D. V. Day (Ed.), *The Oxford handbook of leadership and organizations* (pp. 260–284). Oxford: Oxford University Press.

- Kaiser, R. B., & Hogan, R. (2007). The dark side of discretion: Leader personality and organizational decline. In R. Hooijberg, J. G. Hunt, J. Antonakis, K. B. Boal, & N. Lane (Eds.), *Being there even when you are not: Leading through strategy, structures, and systems* (Vol. 4, pp. 177–197). London: Elsevier Science.
- Kaiser, R. B., & Hogan, R. (2010). How to (and how not to) assess the integrity of managers. *Consulting Psychology Journal: Practice and Research*, 62(4), 216–234.  
<https://doi.org/10.1037/a0022265>
- Kaiser, R. B., Hogan, R., & Craig, S. B. (2008). Leadership and the fate of organizations. *American Psychologist*, 63(2), 96.
- Kaiser, R. B., & Overfield, D. V. (2010). The leadership value chain. *The Psychologist-Manager Journal*, 13(3), 164–183. <https://doi.org/10.1080/10887156.2010.500261>
- Kalshoven, K., Den Hartog, D. N., & De Hoogh, A. H. B. (2011). Ethical leader behavior and Big Five factors of personality. *Journal of Business Ethics*, 100(2), 349–366.
- Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (2d ed.). New York: Wiley.
- Kets de Vries, M. F. R., & Miller, D. (1985). Narcissism and leadership: An object relations perspective. *Human Relations*, 38(6), 583–601.
- Kouzes, J. M., & Posner, B. Z. (2003). *Credibility: How leaders gain it and lose it, why people demand it* (1st ed). San Francisco, CA: Jossey-Bass.
- Krasikova, D. V., Green, S. G., & LeBreton, J. M. (2013). Destructive leadership: A theoretical review, integration, and future research agenda. *Journal of Management*, 39(5), 1308–1338.

- Kubarych, T. S., Deary, I. J., & Austin, E. J. (2004). The Narcissistic Personality Inventory: Factor structure in a non-clinical sample. *Personality and Individual Differences*, *36*(4), 857–872. [https://doi.org/10.1016/S0191-8869\(03\)00158-2](https://doi.org/10.1016/S0191-8869(03)00158-2)
- LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods*, *11*(4), 815–852. <https://doi.org/10.1177/1094428106296642>
- Lindell, M. K., & Brandt, C. J. (1999). Assessing interrater agreement on the job relevance of a test: A comparison of CVI, T, rWG(J)}, and rWG(J)} indexes. *Journal of Applied Psychology*, *84*(4), 640–647. <https://doi.org/10.1037/0021-9010.84.4.640>
- Lindell, M. K., Brandt, C. J., & Whitney, D. J. (1999). A revised index of interrater agreement for multi-item ratings of a single target. *Applied Psychological Measurement*, *23*(2), 127–135. <https://doi.org/10.1177/01466219922031257>
- Lipman-Blumen, J. (2006). *The allure of toxic leaders: Why we follow destructive bosses and corrupt politicians--and how we can survive them*. Oxford: Oxford University Press.
- Lubke, G. H., & Muthén, B. (2005). Investigating population heterogeneity with factor mixture models. *Psychological Methods*, *10*(1), 21–39. <https://doi.org/10.1037/1082-989X.10.1.21>
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, *1*(2), 130–149. <https://doi.org/10.1037/1082-989X.1.2.130>
- Maccoby, M. (2000). Narcissistic leaders: The incredible pros, the inevitable cons. *Harvard Business Review*, *78*(1), 68.

- MacKinnon, D. W. (1944). The structure of personality. In J. M. Hunt (Ed.), *Personality and the behavior disorders: A handbook based on experimental and clinical research* (Vol. 1, pp. 3–48). New York: The Ronald Press Company.
- Magidson, J., & Vermunt, J. (2004). Latent class models. In D. Kaplan (Ed.), *The SAGE Handbook of Quantitative Methodology for the Social Sciences* (pp. 175–198). Newbury Park, CA: Sage.
- Magnusson, D. (1995). Individual development: A holistic, integrated model. In G. H. Elder, K. Lüscher, & P. Moen (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 19–60). Washington, DC: American Psychological Association.
- Magnusson, D. (2000). The individual as the organizing principle in psychological inquiry: A holistic approach. In L. R. Bergman, R. B. Cairns, L.-G. Nilsson, & L. Nystedt (Eds.), *Developmental science and the holistic approach* (pp. 33–48). Mahwah, NJ: Erlbaum.
- Ma, H., Karri, R., & Chittipeddi, K. (2004). The paradox of managerial tyranny. *Business Horizons*, 47(4), 33–40. [https://doi.org/10.1016/S0007-6813\(04\)00046-1](https://doi.org/10.1016/S0007-6813(04)00046-1)
- McCall, M. W., & Lombardo, M. M. (1990). Off the track: Why and how successful executives get derailed. *Bottomline*, 7(9), 24.
- McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of Applied Psychology*, 67(6), 737–743. <https://doi.org/10.1037/0021-9010.67.6.737>
- McCleskey, J. (2013). The dark side of leadership: Measurement, assessment, and intervention. *Business Renaissance Quarterly*, 8(2/3), 35–53.

- McCrae, R. R. (1996). Social consequences of experiential openness. *Psychological Bulletin*, *120*(3), 323–337. <https://doi.org/10.1037/0033-2909.120.3.323>
- McCrae, R. R., & Costa, P. T. J. (1997). Personality trait structure as a human universal. *American Psychologist*, *52*(5), 509–516. <https://doi.org/10.1037/0003-066X.52.5.509>
- McHoskey, J. W. (1999). Machiavellianism, intrinsic versus extrinsic goals, and social interest: A self-determination theory analysis. *Motivation and Emotion*, *23*(4), 267–283. <https://doi.org/10.1023/A:1021338809469>
- McLachlan, G. J., & Peel, D. (2000). *Finite mixture models*. New York: Wiley. Retrieved from <http://catalog.lib.ncsu.edu/record/NCSU1413439>
- Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods*, *17*(3), 437–455. <https://doi.org/10.1037/a0028085>
- Meyer, J. P., Stanley, L. J., & Parfyonova, N. M. (2012). Employee commitment in context: The nature and implication of commitment profiles. *Journal of Vocational Behavior*, *80*(1), 1–16. <https://doi.org/10.1016/j.jvb.2011.07.002>
- Meyer, J. P., Stanley, L. J., & Vandenberg, R. J. (2013). A person-centered approach to the study of commitment. *Human Resource Management Review*, *23*(2), 190–202. <https://doi.org/10.1016/j.hrmr.2012.07.007>
- Michel, J. S., & Bowling, N. A. (2013). Does dispositional aggression feed the narcissistic response? The role of narcissism and aggression in the prediction of job attitudes and counterproductive work behaviors. *Journal of Business and Psychology*, *28*(1), 93–105. <https://doi.org/10.1007/s10869-012-9265-6>

- Mullins, A. K. (2015). *The dimensionality of destructive leadership: Toward an integration of the bright and dark sides*. (Unpublished doctoral dissertation). North Carolina State University, Raleigh, NC.
- Mumford, M. D., Connelly, M. S., Helton, W. B., Strange, J. M., & Osburn, H. K. (2001). On the construct validity of integrity tests: Individual and situational factors as predictors of test performance. *International Journal of Selection and Assessment*, 9(3), 240–257. <https://doi.org/10.1111/1468-2389.00177>
- Mumford, M. D., Zaccaro, S. J., Johnson, J. F., Diana, M., Gilbert, J. A., & Threlfall, K. V. (2000). Patterns of leader characteristics: Implications for performance and development. *The Leadership Quarterly*, 11(1), 115–133. [https://doi.org/10.1016/S1048-9843\(99\)00045-4](https://doi.org/10.1016/S1048-9843(99)00045-4)
- Muthén, L. K., & Muthén, B. O. (2010). *MPlus user's guide*. (Sixth edition.). Los Angeles, CA: Muthén & Muthén.
- Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling*, 14(4), 535–569.
- Nystedt, L. (1997). Who should rule? Does personality matter? *European Journal of Personality*, 11(1), 1–14. [https://doi.org/10.1002/\(SICI\)1099-0984\(199703\)11:1<1::AID-PER275>3.0.CO;2-H](https://doi.org/10.1002/(SICI)1099-0984(199703)11:1<1::AID-PER275>3.0.CO;2-H)
- O'Connor, J., Mumford, M. D., Clifton, T. C., Gessner, T. L., & Connelly, M. S. (1995). Charismatic leaders and destructiveness: An historiometric study. *The Leadership Quarterly*, 6(4), 529–555. [https://doi.org/10.1016/1048-9843\(95\)90026-8](https://doi.org/10.1016/1048-9843(95)90026-8)

- Olls, C. W. (2014). *Relations among leader personality traits and subordinates' perceptions of destructive leadership*. (Unpublished master's thesis). North Carolina State University, Raleigh, NC.
- Ouimet, G. (2010). Dynamics of narcissistic leadership in organizations: Towards an integrated research model. *Journal of Managerial Psychology, 25*(7), 713–726.
- Padilla, A., Hogan, R., & Kaiser, R. B. (2007). The toxic triangle: Destructive leaders, susceptible followers, and conducive environments. *The Leadership Quarterly, 18*(3), 176–194. <https://doi.org/10.1016/j.leaqua.2007.03.001>
- Padilla, A., & Mulvey, P. (2008). Leadership toxicity: Sources and remedies. *Organisations and People, 15*(3), 27–37.
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology, 74*(5), 1197–1208. <https://doi.org/10.1037/0022-3514.74.5.1197>
- Paunonen, S. V., Lönnqvist, J., Verkasalo, M., Leikas, S., & Nissinen, V. (2006). Narcissism and emergent leadership in military cadets. *The Leadership Quarterly, 17*(5), 475–486. <https://doi.org/10.1016/j.leaqua.2006.06.003>
- Penney, L. M., & Spector, P. E. (2002). Narcissism and counterproductive work behavior: Do bigger egos mean bigger problems? *International Journal of Selection and Assessment, 10*(1-2), 126–134. <https://doi.org/10.1111/1468-2389.00199>
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of*

- Personality and Social Psychology*, 54(5), 890. <https://doi.org/10.1037/0022-3514.54.5.890>
- Rayner, C., & Cooper, C. L. (2003). The black hole in “bullying at work” research. *International Journal of Management and Decision Making*, 4(1). <https://doi.org/10.1504/IJMDM.2003.002488>
- Rijsenbilt, A., & Commandeur, H. (2013). Narcissus enters the courtroom: CEO narcissism and fraud. *Journal of Business Ethics*, 117(2), 413–429. <https://doi.org/10.1007/s10551-012-1528-7>
- Rosenthal, S. A., & Pittinsky, T. L. (2006). Narcissistic leadership. *The Leadership Quarterly*, 17(6), 617–633. <https://doi.org/10.1016/j.leaqua.2006.10.005>
- Rowland, D., & Higgs, M. J. (2008). *Sustaining change: Leadership that works*. Chichester: Jossey-Bass.
- Sackett, P. R., Berry, C. M., Wiemann, S. A., & Laczko, R. M. (2006). Citizenship and counterproductive behavior: Clarifying relations between the two domains. *Human Performance*, 19(4), 441–464. [https://doi.org/10.1207/s15327043hup1904\\_7](https://doi.org/10.1207/s15327043hup1904_7)
- Salgado, J. F. (2002). The Big Five personality dimensions and counterproductive behaviors. *International Journal of Selection and Assessment*, 10(1-2), 117–125. <https://doi.org/10.1111/1468-2389.00198>
- Sankowsky, D. (1995). The charismatic leader as narcissist: Understanding the abuse of power. *Organizational Dynamics*, 23(4), 57–71. [https://doi.org/10.1016/0090-2616\(95\)90017-9](https://doi.org/10.1016/0090-2616(95)90017-9)

- Schat, A. C. H., Frone, M. R., & Kelloway, E. K. (2006). Prevalence of workplace aggression in the U.S. workforce: Findings from a national study. In J. Barling, J. J. Hurrell, & E. K. Kelloway (Eds.), *Handbook of workplace violence* (pp. 47–90). Thousand Oaks, CA: SAGE.
- Schaubroeck, J. M., Hannah, S. T., Avolio, B. J., Kozlowski, S. W. J., Lord, R. G., Treviño, L. K., ... Peng, A. C. (2012). Embedding ethical leadership within and across organization levels. *Academy of Management Journal*, *55*(5), 1053.
- Schmidt, A. A. (2008). *Development and validation of the Toxic Leadership Scale*. University of Maryland, College Park.
- Schuman, H. W., & Presser, S. (1981). *Questions and answers in attitude surveys: Experiments on question form, wording, and context*. New York: Academic Press.
- Schyns, B., & Schilling, J. (2013). How bad are the effects of bad leaders? A meta-analysis of destructive leadership and its outcomes. *The Leadership Quarterly*, *24*(1), 138–158. <https://doi.org/10.1016/j.leaqua.2012.09.001>
- Shaw, J. B., Erickson, A., & Harvey, M. (2011). A method for measuring destructive leadership and identifying types of destructive leaders in organizations. *The Leadership Quarterly*, *22*(4), 575–590. <https://doi.org/10.1016/j.leaqua.2011.05.001>
- Skinner, H. A. (1978). Differentiating the contribution of elevation, scatter and shape in profile similarity. *Educational and Psychological Measurement*, *38*(2), 297–308. <https://doi.org/10.1177/001316447803800211>

- Smith, J. A., & Foti, R. J. (1998). A pattern approach to the study of leader emergence. *The Leadership Quarterly*, 9(2), 147–160. [https://doi.org/10.1016/S1048-9843\(98\)90002-9](https://doi.org/10.1016/S1048-9843(98)90002-9)
- Tepper, B. J. (2000). Consequences of abusive supervision. *The Academy of Management Journal*, 43(2), 178–190. <https://doi.org/10.2307/1556375>
- Tepper, B. J. (2007). Abusive supervision in work organizations: Review, synthesis, and research agenda. *Journal of Management*, 33(3), 261–289. <https://doi.org/10.1177/0149206307300812>
- Tepper, B. J., Duffy, M. K., Henle, C. A., & Lambert, L. S. (2006). Procedural injustice, victim precipitation, and abusive supervision. *Personnel Psychology*, 59(1), 101–123. <https://doi.org/10.1111/j.1744-6570.2006.00725.x>
- Torregiante, K. M. (2005). *Destructive personality traits and leadership performance* (Unpublished doctoral dissertation). North Carolina State University, Raleigh, NC.
- Vermunt, J. K., & Magidson, J. (2002). Latent class cluster analysis. In J. A. Hagenaars & A. L. McCutcheon (Eds.), *Applied latent class analysis* (pp. 89–106). New York: Cambridge University Press,. Retrieved from <http://catalog.lib.ncsu.edu/record/NCSU1551661>
- Walumbwa, F. O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: Mediating roles of ethical leadership and work group psychological safety. *Journal of Applied Psychology*, 94(5), 1275–1286. <https://doi.org/10.1037/a0015848>
- Ward, J. H. (1963). Note on the independent contribution of a predictor. *Psychological Reports*, 12(1), 197–198. <https://doi.org/10.2466/pr0.1963.12.1.197>

- Watson, P. J., & Biderman, M. D. (1993). Narcissistic Personality Inventory factors, splitting, and self-consciousness. *Journal of Personality Assessment*, *61*(1), 41.
- Watts, A. L., Lilienfeld, S. O., Smith, S. F., Miller, J. D., Campbell, W. K., Waldman, I. D., ... Faschingbauer, T. J. (2013). The double-edged sword of grandiose narcissism: Implications for successful and unsuccessful leadership among U.S. Presidents. *Psychological Science*, *24*(12), 2379–2389.

**APPENDICES**

## Appendix A

## Narcissistic Personality Inventory

**For each pair of items, choose the one that you most identify with. If you identify with both equally, choose which one you think is most important.**

I am not good at influencing people.

**Modesty doesn't become me.**

I tend to be a fairly cautious person.

**I know that I am good because everyone keeps telling me so.**

The thought of ruling the world frightens the hell out of me.

**I can usually talk my way out of anything.**

**I like to be the center of attention.**

I am not too concerned about success.

I am no better or worse than most people.

I am not sure if I would make a good leader.

**I am assertive.**

I don't mind following orders.

**I find it easy to manipulate people.**

I usually get the respect that I deserve.

**I can read people like a book.**

If I feel competent I am willing to take responsibility for making decisions.

**I want to amount to something in the eyes of the world.**

**I will usually show off if I get the chance.**

Sometimes I am not sure of what I am doing.

Sometimes I tell good stories.

**I expect a good deal from other people.**

**I have a natural talent for influencing people.**

I am essentially a modest person.

**I would do almost anything on a dare.**

When people compliment me I sometimes get embarrassed.

**If I ruled the world it would be a better place.**

I try to accept the consequences of my behavior.

I prefer to blend in with the crowd.

**I will be a success.**

**I think I am a special person.**

**I see myself as a good leader.**

I wish I were more assertive.

**I like having authority over other people.**

I don't like it when I find myself manipulating people.

**I insist upon getting the respect that is due me.**

People are sometimes hard to understand.

**I like to take responsibility for making decisions.**

I just want to be reasonably happy.

I try not to be a show off.

**I always know what I am doing.**

**Everybody likes to hear my stories.**

I like to do things for other people.

I take my satisfactions as they come.

**I like to be complimented.**

**I have a strong will to power.**

It makes me uncomfortable to be the center of attention.

**I can live my life any way I want to.**

Being an authority doesn't mean that much to me.

It makes little difference to me whether I am a leader or not.

**I am going to be a great person.**

People sometimes believe what I tell them.

**I am a born leader.**

**I wish someone would someday write my biography.**

There is a lot that I can learn from other people.

**I am an extraordinary person.**

**I will never be satisfied until I get all that I deserve.**

Compliments embarrass me.

Power for its own sake doesn't interest me.

**I really like to be the center of attention.**

People can't always live their lives in terms of what they want.

**People always seem to recognize my authority.**

**I would prefer to be a leader.**

I hope I am going to be successful.

**I can make anybody believe anything I want them to.**

Leadership is a quality that takes a long time to develop.

I don't like people to pry into my life for any reason.

**I am more capable than other people.**

I am much like everybody else.

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*For each pair of statements, the narcissistic option is in bold.*

## Appendix B

## Machiavellianism IV Scale

Please indicate the extent to which you agree/disagree with each statement, using the following scale:

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

- Never tell anyone the real reason you did something unless it is useful to do so.
- The best way to handle people is to tell them what they want to hear.
- Most people are basically good and kind.\*
- It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.
- Honesty is the best policy in all cases.\*
- There is no excuse for lying to someone else.\*
- Generally speaking, people won't work hard unless they're forced to do so.
- All in all, it is better to be humble and honest than to be important and dishonest.\*
- When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons which carry more weight.\*
- Most people who get ahead in the world lead clean, moral lives.\*
- Anyone who completely trusts anyone else is asking for trouble.
- The biggest difference between most criminals and other people is that the criminals are stupid enough to get caught.
- Most people are brave.\*
- It is wise to flatter important people.
- P.T. Barnum was wrong when he said that there's a sucker born every minute.\*
- It is hard to get ahead without cutting corners here and there.
- People suffering from incurable diseases should have the choice of being put painlessly to death.
- Most people forget more easily the death of their father than the loss of their property.

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\*Reverse scored

## Appendix C

## Mini-IPIP Scales

Please use the rating scale below to describe how accurately each statement describes you.

Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
1	2	3	4	5

**Extraversion**

- Am the life of the party.
- Keep in the background.\*
- Don't talk a lot.\*
- Talk to a lot of different people at parties.

**Openness to Experience**

- Have difficulty understanding abstract ideas.\*
- Have a vivid imagination.
- Am not interested in abstract ideas.\*
- Do not have a good imagination.\*

**Neuroticism**

- Am relaxed most of the time.\*
- Seldom feel blue.\*
- Get upset easily.
- Have frequent mood swings.

**Conscientiousness**

- Get chores done right away.
- Like order.
- Make a mess of things.\*
- Often forget to put things back in their proper place.\*

**Agreeableness**

- Sympathize with others' feelings.
- Feel others' emotions.
- Am not really interested in others.\*
- Am not interested in other people's problems.\*

---

\*Reverse scored

## Appendix D

## Perceived Leader Integrity Scale (PLIS)

**For each item below, indicate how well the item describes the manager you are rating:**

<b>Not at all</b>	<b>Barely</b>	<b>Somewhat</b>	<b>Well</b>
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>

Would lie to me.

Would allow someone else to be blamed for his/her mistake.

Would falsify records.

Is vindictive.

Would deliberately distort what other people say.

Would make trouble for someone who got on his/her bad side.

Would try to take credit for other people's ideas.

Would do things that violate organizational policy and then expect others to cover for him/her.

## Appendix E

## Destructive Leadership Questionnaire (DLQ)

**Please indicate the extent to which you agree or disagree with each of the following statements:**

<b>Strongly Disagree</b>	<b>Somewhat Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Somewhat Agree</b>	<b>Strongly Agree</b>	<b>Don't Know</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>99</b>

**Interpersonal Harshness (IH) scale**

My boss places brutal pressure on subordinates.

My boss is a tyrant.

Anyone who challenges my boss is dealt with brutally.

My boss seems to have huge mood swings.

My boss has personal favorites.

## Appendix F

## Items for Empirically Derived Personality Dimensions

<b>Dimension</b>	<b>Item</b>	<b>Original Scale</b>
<b>Egocentrism / Narcissism (E/N)</b>	I really like to be the center of attention	NPI
	Keep in the background*	Extraversion
	Am the life of the party	Extraversion
	Don't talk a lot*	Extraversion
	Talk to a lot of different people at parties	Extraversion
	I know that I am good because everyone keeps telling me so	NPI
	Modesty doesn't become me	NPI
	Everybody likes to hear my stories	NPI
	I like to be complimented	NPI
<b>Power / Influence (P/I)</b>	When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons which may carry more weight*	Mach-IV
	I am a born leader	NPI
	Never tell anyone the real reason you did something unless it is useful to do so.	Mach-IV
	There is no excuse for lying to someone else*	Mach-IV
	I am an extraordinary person	NPI
	It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.	Mach-IV
	I find it easy to manipulate people	NPI
<b>Conscientiousness</b>	Get chores done right away	Conscientiousness
	Like order	Conscientiousness
	Often forget to put things back in their proper place*	Conscientiousness
	Make a mess of things*	Conscientiousness
<b>Agreeableness</b>	Feel others' emotions	Agreeableness
	Sympathize with others' feelings	Agreeableness
	Am not interested in other people's problems*	Agreeableness

Appendix G  
Dissertation Proposal

Leader Personality Traits and Subordinate Perceptions of Destructive Leadership:  
A Pattern-Oriented Approach

by  
Courtney Williams Olls

A dissertation submitted to the Graduate Faculty of  
North Carolina State University  
in partial fulfillment of the  
requirements for the Degree of  
Doctor of Philosophy

Psychology

Raleigh, North Carolina  
2016

APPROVED BY:

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Dr. S. Bartholomew Craig  
Chair of Advisory Committee

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Dr. Adam W. Meade

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Dr. Shevaun D. Neupert

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Dr. Mark A. Wilson

## Leader Personality Traits and Subordinate Perceptions of Destructive Leadership:

### A Pattern-Oriented Approach

Leaders occupy a central role in organizations, and as such, the study of leadership is a critical part of understanding organizational performance. In the current context, leadership is defined as a process that takes place within organizations, where organizations are conceptualized as systematic structures that exist to organize and direct collective effort (Craig & Kaiser, 2012; Kaiser et al., 2008).

Kaiser and Hogan (2010) described two dominant perspectives on leadership. One view of leadership is that of a formally defined position: if someone is in charge of something, that person is therefore a leader. Alternately, leadership may be considered from a human evolutionary standpoint: leadership is a mechanism that evolved over time to influence individuals to forego their individual interests in favor of coordinating collective effort for the long-term welfare of the group. That is to say, leadership is a resource for group survival (Kaiser & Hogan, 2010). Based on this evolutionary standpoint, it follows that modern organizations continue to have leaders because such organizations have, over time, proved to be more successful than those without them.

Using this evolutionary perspective, leadership may be assessed by measuring group (i.e., organizational) outcomes that are critical for the success of the organization. In other words, the *effectiveness* of the leader can be defined as the extent to which the leader helps the organization achieve its collective goals. Thus, one way to operationalize leader

effectiveness is by measuring the performance of the leader's group or team (Craig & Kaiser, 2012).

So what can leaders do to influence group performance? Broadly speaking, leaders affect organizational outcomes via two channels: interpersonal influence and decision-making (Craig, 2008; Kaiser et al., 2008; Kaiser & Overfield, 2010). Craig and Kaiser (2012) describe leader decision-making as largely *intrapersonal*, because it is ultimately a process that occurs within a single individual. Conversely, the *interpersonal* influence channel includes leader behavior that directly affects the behavior of others.

### **The Bright Side of Leadership**

In many cases, as researchers have examined the types of leader behaviors that influence group performance, they have tended to do so through rose-colored glasses. Kaiser and Craig (2014) have argued that the academic study of leadership has demonstrated a positivity bias; in most cases, the concept of leadership has a positive connotation. Indeed, Burns (2003) contends that, "if it is unethical or immoral, it is not leadership" (p. 48). Consistent with this positivity bias, Cohen (2010) argued that business ethics and personal integrity were *necessary* (though perhaps not sufficient) for effective leadership. One interesting implication of this view is that it renders the set of individuals who are both "leaders" and "bad" empty because, as soon as an individual behaves immorally, he or she is presumably stripped of the "leader" moniker. Consistent with this, some argue that Hitler cannot be considered a leader despite his ability to coordinate the collective efforts of a huge number of people in conducting horrific, devastating acts of violence and brutality.

Such an idealized view of leadership is consistent with the “bright side” approach, in which the focus is on factors that enhance leadership via their *presence* (Ashforth, 1994; Einarsen et al., 2007; R. Hogan & Hogan, 2001; Schmidt, 2008). Indeed, Kaiser and Craig (2014) note that the vast majority of the dominant theories in leadership—including most trait-based theories, leader competency models, leader behavior approaches, path-goal theory, leader-member exchange theory, charismatic leadership theory, and transformational leadership theory—fall into this category. In emphasizing certain factors associated with effective leadership via their presence, these theories exemplify the bright side approach to leadership. The underlying assumption with the bright side approach is that ineffective leadership is the result of the *absence* of such factors (Ashforth, 1994). Yet, despite its prevalence in extant literature, there is evidence to suggest that such an approach does not represent the full range of factors related to effective leadership.

### **The Dark Side of Leadership**

Hogan and Kaiser (2005) contend that it is necessary to distinguish between good and bad leadership, since “good leadership promotes effective team and group performance... [whereas] bad leadership degrades the quality of life for everybody associated with it” (p. 169). Researchers have become increasingly interested in examining the “dark side” of leadership, which focuses on the actively counterproductive factors that enhance leadership via their *absence* (Craig & Kaiser, 2012). This represents an important shift in the field. According to Craig and Kaiser, “there is a growing consensus in the field that dark side factors that undermine effective leadership are at least as important as traditional bright side

factors” in terms of their effect on a variety of individual and organizational outcomes. (2012, p. 440). Others go so far as to say that studying dark side leadership may be more important than studying the bright side. In his discussion of the importance of studying bad or unethical leadership, one researcher cites an old Russian proverb: “a spoonful of tar can ruin a barrel of honey but... a spoonful of honey has little impact on a barrel of tar” (Hunter, 2012, p. 83). He argues that given the potential negative outcomes associated with unethical leadership, there may be greater research utility in focusing on the dark side of leadership than on the bright side.

Unfortunately, bad leadership is not a new phenomenon. Based on organizational climate research conducted from the mid-1950s to 1990, between 60 and 75% of employees indicated that their immediate supervisor was the worst part of their job (R. Hogan et al., 1990). In a more recent study, researchers found that 13.5% of respondents reported having experienced aggression from their supervisor during the preceding 12 months (Schat et al., 2006). When the definition of destructive leadership is expanded to include passive forms of destructive leadership, the rates are even higher. Depending on the estimation method used, researchers reported that between 33.5 and 61% of respondents indicated that their immediate supervisor had demonstrated some form of consistent and frequent destructive leadership behavior during the preceding six months; only 39% of respondents reported no exposure to such behavior over the same period of time (Aasland et al., 2010). While this study did consider laissez-faire leadership and other forms of destructive leadership that may include constructive elements, their findings portray a stark reality. In their latent class

cluster analysis, more than 20% of respondents indicated that their supervisor had “humiliated [them] or other employees if [they] fail to live up to his/her standards” either “quite often” or “very often or nearly always.” And in fact, about one-third of respondents indicated that they had been subjected to some type of destructive leadership behavior “often” during the preceding six months (Aasland et al., 2010).

Unsurprisingly, such destructive behavior comes at a cost. Tepper and colleagues reported that abusive supervision costs organizations \$23.8 billion annually, due to employee absenteeism, health care costs, and lost productivity (Tepper, 2007; Tepper et al., 2006). At the individual level, a number of negative employee outcomes have been associated with destructive leadership as well, including employee counterproductivity (Detert et al., 2007), job tension and emotional exhaustion (Harvey et al., 2007), resistance behavior (e.g., Bamberger & Bacharach, 2006), deviant work behavior (e.g., Duffy, Ganster, & Pagon, 2002), reduced family well-being (e.g., Hoobler & Brass, 2006), and intention to quit and job (dis)satisfaction (e.g., Tepper, 2000).

The findings from a recent meta-analysis offered further evidence of the harmful, widespread effects associated with destructive leadership. Schyns and Shilling (2013) found support for the hypothesized negative correlations among destructive leadership and positive subordinate outcomes (e.g., attitudes towards leader, well-being, and individual performance). They also found support for the hypothesized positive correlations among destructive leadership and negative subordinate outcomes (e.g., turnover intentions, resistance towards leader, and counterproductive work behaviors). Not surprisingly, the

highest observed correlation ( $r = -.571$ ) was between destructive leadership and attitudes towards leader, but interestingly, the next highest correlation was between destructive leadership and followers' counterproductive work behavior (CWB;  $r = .377$ ), illustrating that destructive leadership has very real—and potentially multiplicative—effects in organizations (Schyns & Schilling, 2013).

Taken all together, it is reasonable to conclude that many if not all subordinates are likely to encounter some form of destructive leadership at some point during the course of their work lives. Furthermore, the potential consequences of destructive leadership are severe enough—at the individual, organizational, and societal levels—to warrant further investigation.

**Defining destructive leadership.** One of the challenges associated with destructive leadership (DL) research is that there is a lack of consensus regarding how it should be defined. As is the case in many areas of psychology, different researchers have referred to the same phenomena using different names. Other terms used in this area of research include: unethical leadership (Craig & Gustafson, 1998), leader derailment (R. Hogan & Hogan, 2001; McCall & Lombardo, 1990), toxic leadership (Goldman, 2006; Lipman-Blumen, 2006; Padilla & Mulvey, 2008), petty tyranny (Ashforth, 1994), abusive supervision (Tepper, 2000), dark side leadership (Aasland, Skogstad, & Einarsen, 2008; Benson & Hogan, 2008; Conger, 1990; McCleskey, 2013; Rowland & Higgs, 2008), narcissistic leadership (Brunell et al., 2008; Campbell & Campbell, 2009; Grijalva et al., 2015; Hoffman et al., 2013; Kets de Vries & Miller, 1985; Maccoby, 2000; Ouimet, 2010; Rosenthal &

Pittinsky, 2006) and, somewhat more controversially, negligent or laissez-faire leadership (Aasland et al., 2010).

Furthermore, the term “destructive leadership” itself has been defined in several different ways. One point of contention among researchers involves the issue of intentionality. Some do not consider intentionality to be a definitional feature of DL (e.g., Einarsen et al., 2007; Tepper, 2007), while others have not addressed the issue of intentionality at all (e.g., Ashforth, 1994; Ma, Karri, & Chittipeddi, 2004), and still others consider it a necessary part of the definition (e.g., Craig & Kaiser, 2012). The second point of disagreement is related to the issue of who may be considered potential victims of DL. Some researchers consider only the organization and/or its members (i.e., the in-group) as potential victims of DL, while others also include external stakeholders and/or members of the community. For the purposes of this study, destructive leadership will be defined as the “systematic or repeated behavior by a leader, supervisor, or manager that knowingly violates, or inappropriately risks violating, the legitimate interest of the organization, its members, or other legitimate stakeholders by undermining or sabotaging the goals, tasks, resources, motivation, well-being, job satisfaction, or effectiveness of such stakeholders” (Craig & Kaiser, 2012, p. 441). With respect to the issue of intentionality, this definition requires intent on the part of the leader so as to distinguish it from other constructs such as managerial incompetence (Craig & Kaiser, 2012). Kaiser and Craig (2014) argue that DL is a type of CWB. Consistent with accepted definitions of CWB, their definition of DL has an emphasis on intentionality and harm to an organization’s legitimate interests. What differentiates their

definition of DL from other forms of CWB, however, is the inclusion of “other legitimate stakeholders” (e.g., local community members) as potential victims of destructive leadership—an important extension based on the unique responsibilities afforded to those in leadership roles (Kaiser & Craig, 2014).

As an aside, it is worth noting that although I will refer to destructive leaders, that is not to say that this is an all-or-nothing phenomenon. There is evidence that destructive leadership can and does exist alongside forms of constructive leadership by the same individual (e.g., Aasland et al., 2010; Rayner & Cooper, 2003).

**Measuring destructive leadership.** Considering both the nature of destructive leadership as well as the varied opinions on how to define it, it is not surprising that measuring it has presented some challenges to researchers.

One such challenge involves the use of measures that (ostensibly) assess destructive leadership. In a study conducted to determine whether destructive leadership (a values-centric construct) and ineffective leadership (a performance-centric construct) are distinct from one another, Mullins (2015) factor analyzed 257 items used in measures of destructive leadership and other related constructs (e.g., abusive supervision, petty tyranny, managerial derailment, and laissez-faire leadership). She found evidence of four factors underlying these items: destructiveness, derailment, prosocial behavior, and task orientation. Overall, her findings suggest that values-centric and performance-centric constructs, while related, are distinct in terms of both their conceptual definitions and their factor structures (Mullins, 2015). This has important implications, as some measures of destructive leadership (e.g., the

Destructive Leadership Questionnaire) include both values-centric *and* performance-centric items. If one does not consider intentionality to be a definitional feature of destructive leadership, this may not be problematic. But if, as in the present study, destructive leadership necessarily involves intent on the part of the leader, the decision about what measures—indeed, what items—are used to assess DL is an important one.

One values-centric construct that is conceptually related to destructive leadership is leader integrity. A common method by which integrity has been measured uses competency ratings provided by subordinates. Kaiser and Hogan (2010) examined how subordinate ratings have been used to assess managers' integrity and argued that this may be problematic. Based on their research, they offered two recommendations. First, due to the very nature of integrity (or lack thereof), managers who are low in integrity are unlikely to rate themselves as such. Therefore, observer ratings should be more likely to pinpoint individuals with low integrity. Further, while managers may not often get caught in a destructive act, those who are likely to engage in such activities tend to exhibit cues consistent with unethical behavior, which are in turn used by subordinates as they form impressions of their manager. As a result, subordinates are likely to be the most useful source of information regarding their manager's integrity, whether or not they have observed an overt violation (Kaiser & Hogan, 2010).

Related to observer ratings, it may be that upper management and subordinates see two sides of the same coin, so to speak. Einarsen and colleagues argue that tyrannical leaders may “humiliate, belittle, and manipulate subordinates in order to ‘get the job done’”

(Einarsen et al., 2007, p. 212). Thus, while upper management may see a manager's strong commitment to task completion, subordinates may view it as abusive leadership or bullying (Einarsen et al., 2007). In any event, it would seem that subordinate ratings—rather than supervisor ratings—may be more likely to accurately capture destructive leadership.

In an effort to address the issues associated with using integrity competencies, Craig and Gustafson (1998) developed the Perceived Leader Integrity Scale (PLIS). This measure distinguishes itself from competency ratings by focusing on the negative end of the integrity continuum. Furthermore, subordinates are asked to estimate the *likelihood* that their leader would engage in such behaviors rather than rating overt unethical behaviors. In essence, the PLIS is uniquely capable of capturing leaders' *reputations* for integrity, i.e., how others think of them (R. Hogan, 2007). Reputation refers to the collective impressions that individuals make on others and reflects one of two ways in which MacKinnon (1944) believed personality should be defined. The other way is by factors internal to individuals that explain their behavior. Hogan (2007) refers to this as their *identity*. Having outlined the merits of assessing leader integrity using measures reflective of their reputation, I will now examine the role that leader identity plays in destructive leadership.

### **Personality and Destructive Leadership**

As discussed, destructive leadership has broad-reaching, negative effects on employees, organizations, and society. Therefore it stands to reason that an empirical examination of the antecedents of destructive leadership could provide a useful foundation

for researchers and practitioners aiming to develop interventions to prevent and/or counteract destructive leadership.

In their review of the destructive leadership literature, Padilla et al. (2007) assert that destructive leadership results from the interaction between personality configurations and environmental factors. They refer to these factors as the “toxic triangle,” which comprises characteristics of leaders, followers, and the environment that are associated with destructive leadership (Padilla et al., 2007). While the current study focuses on leader characteristics, it is worth noting that these factors should be considered within a greater context—both within individuals and with the environment.

That said, the relative weight carried by leader personality should not be discounted. Hogan and Kaiser contend that, “personality predicts leadership—who we are is how we lead” (2005, p. 169). Their conclusion is consistent with the findings of a meta-analysis conducted by Judge et al. (2002), in which the authors examined the relationship between personality and leadership in 78 studies. They found that all five dimensions of the five-factor model of personality (extraversion, agreeableness, conscientiousness, emotional stability, and openness) were correlated with overall leadership, which included both emergence and effectiveness. In a more recent meta-analysis examining the relationship between individual differences and leader effectiveness, Hoffman and colleagues (Hoffman et al., 2011) reported similar findings: achievement motivation (an indicator of conscientiousness; Judge et al., 2002), energy (extraversion; Judge et al., 2002), dominance (extraversion; Hogan, Curphy, & Hogan, 1994), self-confidence (emotional stability; Hogan

et al., 1994), and creativity (openness; McCrae & Costa, 1997) were significantly correlated with leader effectiveness. Although agreeableness, per se, was not examined in this meta-analysis, they did find a significant correlation between leadership effectiveness and interpersonal skills, which itself is likely related to agreeableness.

Thus far, evidence to support the link between personality and leadership has primarily focused on the bright side of leadership. Kaiser and Hogan (2007) offer an exception to this trend and provide several additional conclusions about leader personality that may be more relevant to destructive leadership. They argue that personality “flaws” shape leader judgment, which may result in poor decision-making, coworker alienation, and team destabilization. They further suggest that leader personality becomes increasingly consequential as leaders move up in a hierarchy, because they are afforded more discretion and there is more at stake due to decisions having more far-reaching consequences (Kaiser & Hogan, 2007). Similarly, in their discussion of leader derailment, McCall and Lombardo (1990) contend that leader derailment is caused by both personal flaws and performance shortcomings, noting that personal flaws (e.g., insensitivity to others) were the most frequent cause of derailment. Hogan and Hogan (1997) suggested that personality disorders (DSM-IV; American Psychiatric Association, 1994) offer a useful taxonomy of the most significant determinants of managerial failure and that leaders’ dark side tendencies may be considered extensions of the Big Five. As evidenced by the preceding section, discussions of the link between personality traits and destructive leadership have been largely theoretical, with relatively few empirical studies examining this link. Of the empirical studies that have been

done, researchers have generally used one of two approaches: a variable approach or a pattern (person-oriented) approach.

**Variable approach.**

In terms of the relationships among individual differences and destructive leadership, virtually all of the extant research has used a variable approach. In such an approach, the focus is on the variables (personality traits), examined across individuals, and how they relate to certain criteria (e.g., destructive leadership). The goal is to determine which individual difference variables have the strongest relationship with the criterion of interest. This approach may also be used to determine how much unique variance in the criterion can be attributed to a particular variable, or trait, while controlling for other variables. In the following sections, I will provide an overview of the research that has been done examining the relationships among the personality traits of interest and destructive leadership (or related constructs) using a variable approach.

*Narcissism.* One personality trait that has been consistently linked to destructive leadership is narcissism (e.g., Conger & Kanungo, 1998; R. Hogan et al., 1990; House & Howell, 1992; Kets de Vries & Miller, 1985). Narcissism involves having an exaggerated sense of self-importance, fantasies of unlimited success and power, lack of empathy, exploitation of others, dominance, grandiosity, arrogance, and entitlement (American Psychiatric Association, 2000; Rosenthal & Pittinsky, 2006). Padilla et al. include narcissism as one of the elements of their “toxic triangle” (2007). Indeed, there is a substantial body of literature suggesting that narcissism is associated with destructive leadership (e.g., Conger,

1990; R. Hogan et al., 1990; House & Howell, 1992; Krasikova et al., 2013; Maccoby, 2000; O'Connor et al., 1995; Rosenthal & Pittinsky, 2006; Sankowsky, 1995). Researchers have demonstrated that narcissistic leaders are self-absorbed and tend to discount or ignore others' viewpoints and well-being (Conger & Kanungo, 1998). They frequently demand unwavering obedience (O'Connor et al., 1995) and their sense of self-importance and entitlement can lead to abuses of power (Conger, 1990; Maccoby, 2000; Sankowsky, 1995). Krasikova and colleagues have argued that narcissistic leaders are inclined to ignore or even act against the needs of others in the processes of setting goals and influencing subordinates' actions in attaining those goals (2013). Consistent with this, there is evidence to suggest that narcissism is associated with white collar crime (Blickle et al., 2006), CWB (Judge et al., 2006; Michel & Bowling, 2013; Penney & Spector, 2002), and even CEO fraud (Rijsenbilt & Commandeur, 2013). Researchers have also found narcissism to be negatively related to leader integrity (Blair et al., 2008; Mumford et al., 2001) and ethical decision making (Antes et al., 2007).

A recent meta-analysis was conducted to examine the relationship between narcissism and leadership. The authors did not find a linear relationship between narcissism and leader effectiveness, but they did report an underlying curvilinear trend, indicating that a moderate degree of narcissism may be optimal, with extreme levels of narcissism likely associated with lower effectiveness ratings (Grijalva et al., 2015). Although this meta-analysis examined the relationship between narcissism and leader effectiveness, it has important implications. Grijalva and colleagues argued that, while narcissists are adept at initiating relationships,

they are often unable to maintain these relationships over time (2015). As interpersonal influence is one of the two primary channels through which leaders affect organizational performance, the effects of leader narcissism may be significant.

Notwithstanding the aforementioned evidence, narcissism is not always a bad thing. Kets de Vries and Miller noted that everyone displays narcissistic behavior and in fact, a “certain dose of narcissism is necessary to function effectively” (1985, p. 588). Watts and colleagues (2013) examined this idea of the double-edged sword of narcissism in a retrospective study of former U.S. Presidents. They found that grandiose narcissism was correlated with composite performance ratings as well as several objective measures including winning the popular vote and initiating new legislation (Watts et al., 2013). Consistent with the research discussed in the preceding section, narcissism was also correlated with some negative measures, including congressional impeachment resolutions and unethical behaviors (e.g., stealing, bending or breaking rules, cheating on taxes, or abusing power; Watts et al., 2013).

Although researchers increasingly argue for both negative and positive aspects of this trait, consensus has yet to be reached regarding the underlying dimensionality of narcissism, particularly as measured by the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). A number of researchers have attempted to validate the factor structure of this measure, and have argued for the presence of two (Corry et al., 2008; Kubarych et al., 2004), three (Ackerman et al., 2011; Kubarych et al., 2004), four (Emmons, 1984, 1987), or even seven factors, as suggested by Raskin and Terry (1988). Some researchers argue that, while

the NPI may measure several lower order factors, it does indeed measure a single higher-order, general narcissism factor (e.g., Emmons, 1987; Kubarych et al., 2004; Watson & Biderman, 1993). Consistent with this, other management researchers have treated narcissism as unidimensional in their research (Brunell et al., 2008; Hoffman et al., 2013; Judge et al., 2006). Thus, although it is often theoretically conceptualized as multidimensional, narcissism is frequently treated as a unidimensional trait in organizational research. In some instances, this distinction may not necessarily be problematic – or even evident – if different aspects of narcissism all relate similarly to the criterion of interest. However, as previously noted, narcissism appears to have both a bright and a dark side (Campbell & Campbell, 2009; Judge et al., 2009; Paulhus, 1998). Some aspects, like high self-esteem, are generally considered to be adaptive, while others, such as entitlement, tend to be more maladaptive (e.g., Paunonen et al., 2006). Moreover, the extent to which certain narcissistic characteristics are perceived as adaptive may depend on the focal individual's position. That is, narcissistic characteristics (e.g., risk-taking and grandiosity) that are considered maladaptive in the general population may be more likely to be perceived as neutral or even commendable in leaders (Watts et al., 2013).

While there is clearly evidence for the link between narcissism and destructive leadership (or similar constructs), much of the work in this area has been theoretical. Of the empirical research that has been done, very little of it has been both prospective and conducted with leader participants. One exception to this is a study conducted by Blair and colleagues (2008). Based on multisource ratings provided for 154 managers, the researchers

found that narcissism was negatively related to supervisory ratings of integrity. Interestingly, narcissism was found to be unrelated to subordinate ratings of integrity. However, it is worth noting that integrity was measured using five items on an evaluation scale, which were designed to examine the degree to which the leader engaged in certain behaviors (e.g., “Does not misrepresent him/herself for personal gain”), according to the rater. As previously discussed, this type of measure may not provide a comprehensive, accurate picture of destructive leadership, primarily because overt and observable counterproductive behavior has a very low base rate, and because most violations are only discovered after the fact (Kaiser & Hogan, 2010).

More recently, Hoffman and colleagues (2013) conducted a study of 68 managers and their subordinates to examine the relationships among narcissism, ethical context, and ethical leadership using the 10-item Ethical Leadership Scale (Brown et al., 2005). There was no main effect of narcissism on subordinate ratings of ethical leadership. However, they did find an interaction effect between narcissism and ethical organizational context, such that narcissism was negatively related to ethical leadership in highly ethical contexts, but not related to ethical leadership in low ethical contexts (Hoffman et al., 2013). As with the Blair et al. (2008) study, the measure of ethical leadership used examined the extent to which leaders engaged in a particular behavior (e.g., “listens to what employees have to say”) according to subordinates, which may not offer a complete picture of destructive behaviors.

***Machiavellianism.*** Machiavellianism is a personality trait named after Niccolò Machiavelli, who wrote *The Prince* in the 16<sup>th</sup> century. Machiavellianism is defined as

“cunning, manipulation and the use of any means necessary to achieve one’s political ends” (Judge et al., 2009, p. 867). Leaders high in Machiavellianism tend to seek to exert control over their followers, be politically oriented, and lack affect in interpersonal relationships (Deluga, 2001; McHoskey, 1999). Because they also tend to be highly capable of influencing others, these leaders can typically convince others to do things for the leader’s own benefit, thus demonstrating clear abuses of power. For our purposes, the most problematic aspect of Machiavellianism may be that these leaders are unlikely to adhere to organizational procedures, or ethical and moral standards, in favor of behaving in ways to maximize their own power (Judge et al., 2009). Not only are these leaders likely to pursue selfish goals—even if they cause harm to the organization or its members—but they are also prone to using harmful methods of influence to coerce subordinates to achieve such goals (Krasikova et al., 2013).

***Extraversion.*** Extraversion is one dimension of the five-factor model (FFM) of personality and represents the degree to which an individual is sociable, assertive, active, and energetic (Judge et al., 2002). Excessive extraversion may be characterized by behavior that is bold, aggressive, and grandiose (Judge et al., 2009). These individuals prefer the spotlight and are likely to give themselves more credit than they deserve (R. Hogan & Hogan, 2001). Leaders who exhibit high levels of extraversion may be less likely to seek input from colleagues, which may result in alienation (Judge et al., 2009). Further, because extraverts typically have a high need for stimulation, they are more likely to exhibit transient enthusiasm for projects, people, and ideas (Beauducel et al., 2006). This may result in hasty

or ill-advised decision-making (e.g., in aggressive pursuit of acquisitions/investments), and later, change in course if the returns on their investments do not measure up to their bold and aggressive expectations (Judge et al., 2009). Despite these theoretical links, empirical research has yet to confirm a relationship between extraversion and destructive leadership. However, there has been research demonstrating a negative relationship between extraversion and CWB (Sackett et al., 2006; Salgado, 2002), and given the conceptual overlap between CWB and DL, it is reasonable to believe that extraversion may also be related to DL.

***Openness to experience.*** Another dimension of the FFM, openness to experience reflects the degree to which individuals are imaginative, unconventional, and autonomous (Judge et al., 2002). Individuals who score high on measures of openness have been characterized as nonconforming, priding themselves on their anti-authoritarian and anti-establishment attitudes (McCrae, 1996). Individuals who are very high on openness are considered to be a potential hazard in conventional, hierarchical organizations (Judge & LePine, 2007). High openness leaders tend to be more willing to employ almost any strategy or technique if they believe it increases the likelihood of organizational success (Judge et al., 2009). Similar to highly extraverted leaders, leaders high in openness may be easily distracted by new, unconventional ideas. Consequently they may be more likely to use short-term fixes that challenge traditional, deeply held organizational values. In doing so, they may place the stability of the organization at risk (Judge et al., 2009). In his meta-analysis

examining the relationships among the Big Five factors of personality and CWB, Salgado (2002) reported a negative relationship between openness and turnover, an indicator of CWB.

***Emotional stability.*** A third dimension of the FFM, emotional stability (low neuroticism) reflects the degree to which individuals are confident, secure, and steady (Judge & Bono, 2001). Leaders high in emotional stability tend to be seen as reserved, laid-back, even leisurely (Goldberg, 1999). Given that the interpersonal component of leadership is inherently an emotional process (Dasborough & Ashkanasy, 2002), genuine emotional displays are likely to increase a leader's credibility among his followers (Kouzes & Posner, 2003). Conversely, excessively high levels of emotional stability—marked by steady, even-keeled composure—may be interpreted as apathy. Leaders high in emotional stability may suppress their true evaluations of their employees and offer minimal feedback. Thus, these leaders may impede employees who rely on feedback and supervisor interactions (Judge et al., 2009). In support of a potential link between emotional stability (or lack thereof) and destructive leadership, researchers have reported a negative relationship between emotional stability and CWB (Sackett et al., 2006; Salgado, 2002). And in their study examining antecedents of ethical leadership, Kalshoven and colleagues found that emotional stability was positively related to subordinate ratings of ethical leadership after controlling for leader-member exchange (LMX) ratings (Kalshoven et al., 2011).

***Conscientiousness.*** Another dimension of the FFM, conscientiousness is characterized by individuals' tendency to be efficient, detail-oriented, deliberate, and demonstrate a strong sense of direction in pursuit of their goals (Costa & McCrae, 1992). At

high levels of conscientiousness, individuals may be overly cautious and analytical, and as a result, may delay critical decision-making and be less likely to incorporate innovative or risky strategies (R. Hogan & Hogan, 2001). In excess, conscientiousness may manifest itself as perfectionism and inflexibility. As a result, leaders who are very high in conscientiousness may be overly critical of subordinates' performance (R. Hogan & Hogan, 2001). In addition to research demonstrating a link between conscientiousness and subordinate ratings of ethical leadership (Kalshoven et al., 2011; Walumbwa & Schaubroeck, 2009), researchers have also reported negative correlations between conscientiousness and both CWB (Sackett et al., 2006; Salgado, 2002) and organizational deviance (Berry et al., 2007).

***Agreeableness.*** Agreeableness, the final dimension of the FFM, is marked by modesty, altruism, and trustworthiness (Costa & McCrae, 1992). Leaders who are high in agreeableness tend to avoid interpersonal conflict (Graziano et al., 1996) and may be overly sensitive to the needs of others around them. This may lead to avoidance in difficult decision-making situations. Highly agreeable leaders are more likely to demonstrate leniency in their performance ratings (Bernardin et al., 2000). As discussed in regards to integrity assessment issues, such appraisals likely skew rating distributions, such that a disproportionate number of employees receive high performance ratings. At an extreme, such skew has the potential to put the organization at risk for wrongful termination accusations made by employees who received less-than-accurate performance appraisals

(Judge & LePine, 2007). There is evidence that leader agreeableness is positively related to subordinate ratings of ethical leadership (Kalshoven et al., 2011; Walumbwa &

broeck, 2009). Furthermore, researchers have also found negative relationships between agreeableness and both CWB (Sackett et al., 2006; Salgado, 2002) and interpersonal deviance (Berry et al., 2007).

As can be seen from the extant literature, the variable approach is useful in that it allows researchers to examine a trait and determine how and to what degree it is related to the criterion. On the other hand, the variable approach is also limited in that an individual is no more than a sum of variables. As such, the interactions among traits are not taken into account at the individual level (Magnusson, 2000).

#### **Pattern approach.**

In contrast to a variable approach is a pattern, or person-oriented, approach. Proponents of this approach argue that individual differences (variables) are most meaningful when they are part of a pattern or configuration rather than examined in isolation (Magnusson, 1995). The pattern approach assumes that each individual continually interacts with the environment, but also that each individual maintains a fairly stable, consistent pattern of individual differences. Because leadership occurs in a dynamic, social context, we can get a more complete picture of leadership by using a pattern approach to complement research done using a variable approach (Nystedt, 1997).

A pattern approach takes a holistic, interactionist view of personality. This approach involves categorizing individuals into homogenous groups, or clusters, based on the pattern

of values for the variables under consideration. The clusters of individuals, rather than the variables themselves, then become the primary focus of the study. With a pattern approach, the underlying assumption is that an individual is more than the sum of his or her traits. Taken further, this implies that one trait, for example narcissism, is less meaningful on its own than when it is examined in the context of other traits occurring in an individual (Bergman, 2000; Foti & Hauenstein, 2007).

In addition to these theoretical differences, a pattern approach has several practical advantages over a traditional variable-based approach (e.g., multiple regression). First, a pattern approach allows for the identification of interactions that only hold for subsets of the sample, whereas traditional regression-based methods will only detect interactions if they hold across the entire sample. Related to this point, a pattern approach can examine configurations defined by larger numbers of variables than would be possible to test using regression without very large sample sizes.

Thus far, there has been virtually no research examining the relationships among individual differences and destructive leadership using a pattern approach. Of the leadership research that has been conducted using a pattern approach, nearly all of it has examined the relationships among individual differences and leadership effectiveness and/or emergence. McClelland and Boyatzis (1982) found that a profile including moderate to high need for power, low need for affiliation, and high activity inhibition was related to subsequent managerial promotion rates. Smith and Foti (1998) found that a profile including high intelligence, high dominance, and high general self-efficacy was related to leader emergence.

Consistent with these findings, Foti and Hauenstein (2007) reported that a profile including high intelligence, high dominance, high general self-efficacy, and high self-monitoring was related to promotions, leader emergence, and supervisor-rated leader effectiveness. In a study of 821 junior-level U.S. Army officers, Mumford et al. (Mumford et al., 2000) determined that there were seven types of leader characteristics among them. Of these, three of these types were also found among 426 senior-level officers, demonstrating the patterns of characteristics that were more prevalent among senior leaders.

All of the aforementioned pattern-oriented studies focused on the bright side of leaders and/or leadership. In fact, very few “dark side” studies have used a pattern approach. In one such exception, Torregiante (2005) examined destructive trait patterns (using the Hogan Development Survey, HDS; R. Hogan & Hogan, 1997) and leadership performance among 295 executives to determine what personality trait patterns existed among them. She found that one personality profile (unpredictable, critical, overreacts to pressure, prefers to be alone, not afraid of failure, self-confident, suspicious of authority, sensitive to criticism, resistant to change, detail-oriented, well-organized, decisive, and willing to take risks) was associated with the lowest performance ratings. Based on her findings, she argued that the pattern of the HDS scores appeared to play a greater role in predicting leadership performance than did the magnitude of the HDS scores (Torregiante, 2005). While this study did examine dark side traits, the criteria used were measures of constructive, rather than destructive, leadership.

Perhaps the most relevant pattern-oriented research for the purposes of the present study was conducted by Gustafson and Ritzer (1995). In their study, they provided evidence for the existence of an aberrant self-promotion (ASP) pattern comprising high self-esteem, high narcissism, high psychopathy, low socialization, and low social desirability. They found that ASP individuals were more likely than non-ASPs to endorse having participated in illegal activities (e.g., theft, vandalism, intoxicated driving, and experimentation with explosives). ASPs had also received more parking tickets, been issued more university judicial reprimands, and were more likely to have been arrested as compared to non-ASPs. The researchers argued that if hired, ASPs were also likely to intimidate subordinates or colleagues, lie, misrepresent others' ideas as their own, and disobey ethical or legal procedures (Gustafson & Ritzer, 1995).

To summarize, while there has been a recent increase in research examining individual differences associated with destructive leadership (or similar constructs), much of it has been either theoretical or retrospective. Of the prospective empirical research, a considerable proportion of those studies used non-employee (i.e., student) samples or lower-level employee samples. And of the empirical research that has been conducted using organizational leaders, virtually all of it has used a variable approach. Such research has certainly provided useful information regarding the extent to which individual differences are related to destructive leadership, but has also been somewhat limited in that the individual becomes abstracted in the analysis and interpretation. Thus it would be valuable to examine

these relationships from a different perspective—by examining the extent to which certain patterns of individual differences predict destructive leadership.

### **The Current Study**

Given the potential for harm resulting from destructive leadership, and the existing gaps in the extant literature, the purpose of the present study is to examine leader personality patterns and determine how different personality profiles are related to subordinate perceptions of destructive leadership. The aim of the first two research questions is to gain a better understanding of the characteristic patterns of personality traits that actually exist among leaders and to estimate the frequency with which they occur.

**Research question 1.** How many distinct personality trait patterns (i.e., profiles) exist among leaders?

**Research question 2.** What is the nature of each profile and what proportion of the sample is classified under each?

There is reason to believe that organizational level may play a role in the prevalence of personality profiles. For instance, in their study of leader characteristics among U.S. Army officers, Mumford et al. (2000) found that while there were seven personality profiles among junior-level officers, the prevalence of these profiles was markedly different among senior-level officers. Specifically, whereas 17% of junior-level officers were classified as “motivated communicators,” 40% of senior-level officers were classified as such. Similarly, just 11% of junior-level officers were classified as “thoughtful innovators” as compared to 26% of senior-level officers. This is important because the effects of leader personality are

thought to be magnified as leaders are promoted to higher levels, due to having more discretion in their decisions and greater consequences for their actions (Kaiser & Hogan, 2007). This is also consistent with upper echelon theory, which states that executives think and act differently compared to leaders at lower levels of the organization (Hambrick & Mason, 1984; Katz & Kahn, 1978). In order to address this issue, the aim of the third research question is to determine the prevalence of each personality profile at several different organizational levels.

**Research question 3.** Are leader profiles differentially represented at different organizational levels?

The aim of the fourth research question is to externally validate the clusters (profiles) by assessing the extent to which leader personality profiles are associated with subordinate perceptions of destructive leadership.

**Research question 4.** Do differences exist among personality profiles on ratings of subordinate perceptions of destructive leadership?

## **Method**

### **Participants**

The proposed study will use archival data that were collected from individuals employed in hierarchically structured organizations. Olls (2014) collected responses from 242 subordinate employees (71% female) reporting to 135 leaders (42% female) for at least three months, either currently (95.9%) or within the preceding three years (4.1%). Leader participants represented a variety of industries. Leader participants reported working for

organizations ranging in size from fewer than 100 employees (63%), to greater than 5000 employees (13%). Leader participants were roughly divided into three organizational levels: first line supervisors (32.6%), middle managers (31.1%), and executives (31.9%); 3.7% of leaders considered themselves individual contributors<sup>5</sup>.

In order to participate in Olls's (2014) study, subordinates must have directly reported to their leader for at least three months in order to ensure that there was sufficient time to interact with and form an impression of the leader. Of the subordinate participants, nearly all (94%) worked with their managers full time. Of these, 96% reported directly to their managers, and 4% reported indirectly (i.e., through an intermediate manager). The median length of time the subordinates had reported to their focal managers was 36 months.

### **Procedure**

Leader participants completed personality measures on narcissism, Machiavellianism, extraversion, openness to experience, emotional stability, conscientiousness, and agreeableness, in addition to several demographic questions. Leader participants also provided contact information for at least one direct report subordinate with whom they had worked for three or more months (Olls, 2014).

Subordinate participants completed the short version of the Perceived Leader Integrity Scale and a shortened version of the Destructive Leadership Questionnaire. Subordinates also provided information about their organization and their relationship to the focal manager (Olls, 2014).

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<sup>5</sup> These individual contributors are included in the leader group because they reported having at least one current subordinate with whom they worked. Their subordinates, who also participated in the study, independently confirmed this relationship.

## Measures

**Narcissistic personality inventory.** Leader narcissism was assessed using a self-report measure consisting of items from the Narcissistic Personality Inventory (NPI; Kubarych et al., 2004; Raskin & Terry, 1988). Consistent with Galvin, Waldman, and Balthazard (2010)'s use of this measure in a sample of senior leaders, items from the vanity subscale were not included. The modified version contained 34 items that were combined into a single measure of narcissism, which is consistent with past research (Galvin et al., 2010; Kubarych et al., 2004). Each item consists of a pair of statements: one considered narcissistic, and the other non-narcissistic. An individual's overall NPI score represents the proportion of narcissistic items endorsed. Higher scores indicate higher levels of narcissism. The internal consistency reliability estimate (Kuder-Richardson 20) for this scale was .80.

**Machiavellianism IV scale.** The 20-item, self-report Machiavellianism IV Scale (Mach IV; Christie & Geis, 1970) was used to assess Machiavellianism in leaders. The scale was developed in congruence with statements from Machiavelli's *The Prince* and *Discourses* (Christie, 1970). Sample items include, "Never tell anyone the real reason you did something unless it is useful to do so," "The best way to handle people is to tell them what they want to hear," and "There is no excuse for lying to someone" (reverse scored). Items were rated using a seven-point Likert type response format ranging from 1 ("strongly disagree") to 7 ("strongly agree"). Machiavellianism scores were calculated by reverse coding the ten negatively-worded items and averaging across the individual's ratings on the

20 items comprising the scale. Higher scores indicate higher levels of Machiavellianism. Cronbach's alpha for this scale was .70.

**Big Five personality inventory.** The Big Five factors of personality (extraversion, openness to experience, emotional stability, conscientiousness, and agreeableness) were assessed using the 20-item Mini-IPIP scales (Donnellan et al., 2006), which is a short version of the 50-item International Personality Item Pool – Five Factor Model measure (Goldberg, 1999). Each of the five factors is assessed using four items, for a total of 20 self-report items. Items were rated using a five-point Likert type response format ranging from 1 (“very inaccurate”) to 5 (“very accurate”). A scale score for each of the five personality traits was calculated by reverse coding any negatively-worded items and then averaging across the individual's ratings on the four items comprising each measure. Higher scores indicate higher levels of that personality trait.

**Extraversion.** The extraversion scale was used to assess the extent to which individuals are sociable, assertive and active. Leader participants were asked to rate the extent to which each item described them. Sample items include, “Talk to a lot of different people at parties,” and “Keep in the background” (reverse scored). Cronbach's alpha for this scale was .77.

**Openness to experience.** The openness (or “intellect”) scale was used to assess the extent to which individuals are imaginative, autonomous, and nonconformist. Leader participants were asked to rate the extent to which each item described them. Sample items

include, “Have a vivid imagination,” and “Am not interested in abstract ideas” (reverse scored). Cronbach’s alpha for this scale was .62.

***Emotional stability.*** The emotional stability scale was used to assess the extent to which individuals are confident, secure, and steady. Leader participants were asked to rate the extent to which each item described them. Sample items include, “Am relaxed most of the time,” and “Get upset easily” (reverse scored). Cronbach’s alpha for this scale was .65.

***Conscientiousness.*** The conscientiousness scale was used to assess the extent to which individuals are orderly, attentive to details, and deliberate in their actions. Leader participants were asked to rate the extent to which each item described them. Sample items include, “Get chores done right away,” and “Make a mess of things” (reverse scored). Cronbach’s alpha for this scale was .68.

***Agreeableness.*** The agreeableness scale was used to assess the extent to which individuals are modest, empathetic, and concerned for others. Leader participants were asked to rate the extent to which each item described them. Sample items include, “Sympathize with others’ feelings,” and “Am not really interested in others” (reverse scored). Cronbach’s alpha for this scale was .70.

***Perceived leader integrity scale.*** Subordinates’ impressions of their leaders’ integrity were assessed using the short version of Craig and Gustafson’s (1998) Perceived Leader Integrity Scale (PLIS). The full version of the PLIS contains 31 items reflecting both character (e.g., “is vindictive”) and bad conduct (e.g., “always gets even”). Most of the items ask observers (i.e., subordinates) to rate the likelihood that their leaders would engage in a

particular unethical behavior if given an opportunity (Kaiser & Hogan, 2010). The PLIS is based on the premise that destructive leadership is not just the absence of high integrity behavior but involves “actively devious, manipulative, and dishonest behavior” (Craig & Kaiser, 2012, p. 442). Subordinate participants completed a short (eight-item) version of the PLIS. They rated their leader on a four-point Likert type response format representing the degree to which each item described the leader, ranging from 0 (“not at all”) to 3 (“well”). Cronbach’s alpha was 0.89. PLIS scores were calculated for each subordinate by averaging across those eight items. For managers with two or more subordinate raters, the mean PLIS score across all subordinates for that manager was used. Higher PLIS scores indicate higher levels of destructive leadership (i.e., lower perceived integrity).

**Destructive leadership questionnaire.** The Destructive Leadership Questionnaire (DLQ; Shaw et al., 2011) was developed in congruence with Einarsen et al.’s (2007) conceptualization of destructive leadership, defined as the “systematic and repeated behavior by a leader, supervisor, or manager that violates the legitimate interest of the organization by undermining and/or sabotaging the organization’s goals, tasks, resources, and effectiveness and/or the motivation, well-being or job satisfaction of subordinates” (p. 208).

Like the PLIS, the DLQ defines destructive leadership in terms of subordinate perceptions. Unlike the PLIS, the DLQ contains a number of items that are more performance-centric in nature rather than values-centric (Mullins, 2015). In Olls’s (2014) study, subordinates rated their managers on a 20-item version of the DLQ. These 20 items were based on the results of an exploratory factor analysis conducted to reduce the number of

items from the original 127-item measure while still retaining a representative sample of items from the full DLQ. Each of the 20 retained items loaded onto one of four factors: managerial ineffectiveness, interpersonal harshness, laissez-faire management, or indecisiveness/inaction.

Mullins (2015) has since reported that more than half of the original 127 DLQ items load more strongly onto performance-centric factors than on values-centric factors, the latter of which is more consistent with how destructive leadership is being defined in the current study. Therefore, the performance-centric and values-centric items from that study were compared to the 20 items used in Olls's (2014) study. The 15 items that made up three subscales (managerial ineffectiveness, laissez-faire management, and indecisiveness/inaction) used in Olls's study were items that loaded onto one of Mullins's performance-centric factors. The remaining five items (all on Olls's interpersonal harshness subscale) loaded onto Mullins's active destructive factor (one of Mullins's two values-centric factors).

For the present study, the five DLQ items from Olls's (2014) interpersonal harshness subscale—that also loaded onto Mullins's active destructive factor—will be used as a measure of destructive leadership (along with the PLIS). Based on the results from both Olls's (2014) and Mullins's (2015) factor analyses, there is strong evidence to suggest that the remaining 15 items are more consistent with ineffective leadership rather than destructive leadership as it is being defined in the present study. These 15 performance-centric items

will be included in the analyses for exploratory purposes, but will be analyzed separately from the five DLQ interpersonal harshness items.

DLQ items assess both supervisors' trait-like personal characteristics and their behavior. Some examples of items are: "My boss places brutal pressure on subordinates" and "my boss is a tyrant." Consistent with the original DLQ measure, subordinates rated their leader using a six-point Likert type response format representing the degree to which they agreed with each item, ranging from 1 ("strongly disagree") to 6 ("strongly agree"). Alternatively, participants could select "Don't Know" if they felt unable to rate their manager on a particular item.<sup>6</sup> Cronbach's alpha was 0.77 for the interpersonal harshness items.

The DLQ: Interpersonal Harshness (IH) scores were obtained for each subordinate by averaging across those five items. For single-rater/manager dyads, the DLQ:IH scores calculated for the subordinate were used for that manager. For managers with more than one subordinate participating in the study, DLQ:IH scores were averaged across subordinates for that manager. Higher DLQ:IH scores indicate higher levels of destructive leadership.

### **Proposed Analyses**

#### **Research Questions 1 and 2**

To address the first research question (i.e., how many distinct personality trait patterns exist among leaders?) and the second research question (i.e., what is the nature of each profile and what proportion of the sample is classified under each?), two primary analyses will be conducted on leader personality ratings: hierarchical agglomerative cluster analysis and latent profile analysis.

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<sup>6</sup> These responses were considered missing data.

The cluster analysis will be conducted in two phases using SLEIPNER (Bergman & El-Khoury, 2002). In the first phase, a hierarchical agglomerative method (Ward's minimum variance method) will be used to find the optimal number of clusters in the data (RQ 1). The second phase of the process will involve reassignment passes through the data based on the specified number of clusters in order to further reduce the error for each cluster (often referred to as a K-means procedure).

After leaders have been assigned to their final cluster profile, each profile will be described in terms of the pattern of mean trait levels for members assigned to it (RQ 2). The number and proportion of leaders assigned to each cluster profile will also be provided (RQ 2). Cluster profile graphs will also be generated (RQ 2).

Next, a multivariate analysis of variance (MANOVA) will be conducted to determine whether differences exist among cluster profiles on the seven leader personality subscales. If the Wilks lambda statistic is significant, this will indicate an overall effect of cluster membership on personality subscales. Post hoc tests will be used to compare cluster profiles pairwise. Significant results will indicate the profiles are different from one another.

Latent profile analysis will be conducted using Mplus. LPA uses maximum likelihood estimation to assign individuals demonstrating similar personality trait patterns to a latent category (profile). In this procedure, the first model is a one-profile model. Profiles are added successively until non-convergence problems emerge.

Fit indices will be used to assess fit for each model and determine the most appropriate number of profiles (RQ 1). The optimal model will also demonstrate distinct

profiles (i.e., high probability that the members actually belong to the assigned profile and a low probability that they belong to other profiles).

The number and proportion of leaders assigned to each profile will be provided (RQ 2). Each profile will be described in terms of the pattern of mean trait levels for members assigned to that profile (RQ 2). Profile graphs will also be generated (RQ 2).

As with the cluster analysis, a multivariate analysis of variance (MANOVA) will be conducted to determine whether differences exist among latent profiles on the seven leader personality subscales. A significant Wilks lambda value would indicate an overall effect of profile membership on personality subscales. Post hoc tests will be used to compare profiles pairwise. Significant results will indicate the profiles are different from one another.

### **Research Question 3**

The third research question (i.e., are leader profiles differentially represented at different organizational levels?) will be addressed using a chi-square contingency table analysis to determine if leader organizational level (first-line supervisor, middle manager, executive) is related to cluster membership (Cluster 1, Cluster 2, etc.). A significant Pearson chi-square<sup>7</sup> value would indicate that cluster membership is related to leader organizational level. If the omnibus chi-square test is significant, standardized residuals will be calculated to determine which specific cells (e.g. executives in Cluster 2 or middle managers in Cluster 5) have the largest residuals, and therefore make the greatest contribution to the resulting chi-square value.

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<sup>7</sup> If there are nine or more clusters/profiles, expected frequencies would be at or below five participants per cell. In that case, Fisher's exact test statistic would be used rather than Pearson's chi-square statistic.

These analyses will be performed twice: once for the clusters resulting from the cluster analysis and again for the profiles resulting from the latent profile analysis.

#### **Research Question 4**

The fourth research question (i.e., do differences exist among personality profiles on ratings of subordinate perceptions of destructive leadership?) will be addressed using analysis of variance (ANOVA) to test whether there are significant differences among cluster profiles on subordinate ratings of destructive leadership. A significant *F*-value would indicate a main effect of profile membership on subordinate ratings of destructive leadership. Post hoc tests would then be conducted to compare the profiles pairwise in terms of their destructive leadership ratings to determine where the differences are (e.g., leaders assigned to Profile 3 have significantly higher destructive leadership ratings than leaders assigned to Profile 4).

These analyses will be performed twice: once for the clusters resulting from the cluster analysis and again for the profiles resulting from the latent profile analysis.

#### **Discussion**

Results of the proposed study will be considered in conjunction with the extant body of literature of destructive leadership. Strengths and limitations of the current study will be discussed and future empirical research questions will be offered. Consideration of the potential applicability of these findings to research, theory, and practice will be discussed, as well.

## References

- Aasland, M. S., Skogstad, A., & Einarsen, S. (2008). The dark side: Defining destructive leadership behaviour. *Organisations and People*, *15*(3), 19–26.
- Aasland, M. S., Skogstad, A., Notelaers, G., Nielsen, M. B., & Einarsen, S. (2010). The prevalence of destructive leadership behaviour. *British Journal of Management*, *21*(2), 438–452. <https://doi.org/10.1111/j.1467-8551.2009.00672.x>
- Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the Narcissistic Personality Inventory really measure? *Assessment*, *18*(1), 67–87.
- Aldenderfer, M. S., & Blashfield, R. K. (1984). *Cluster analysis*. Newbury Park: Sage Publications,. Retrieved from <http://catalog.lib.ncsu.edu/record/NCSU641895>
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV* (4th ed.). Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR* (4th ed., text revision). Washington, DC: American Psychiatric Association.
- Antes, A. L., Brown, R. P., Murphy, S. T., Waples, E. P., Mumford, M. D., Connelly, S., & Devenport, L. D. (2007). Personality and ethical decision-making in research: The role of perceptions of self and others. *Journal of Empirical Research on Human Research Ethics: An International Journal*, *2*(4), 15–34. <https://doi.org/10.1525/jer.2007.2.4.15>

- Ashforth, B. (1994). Petty tyranny in organizations. *Human Relations, 47*(7), 755–778.
- Bamberger, P. A., & Bacharach, S. B. (2006). Abusive supervision and subordinate problem drinking: Taking resistance, stress and subordinate personality into account. *Human Relations, 59*(6), 723–752.
- Beauducel, A., Brocke, B., & Leue, A. (2006). Energetical bases of extraversion: Effort, arousal, EEG, and performance. *International Journal of Psychophysiology, 62*(2), 212–223. <https://doi.org/10.1016/j.ijpsycho.2005.12.001>
- Benson, M. J., & Hogan, R. (2008). How dark side leadership personality destroys trust and degrades organisational effectiveness. *Organisations and People, 15*(3), 10–18.
- Bergman, L. R. (2000). The application of a person-oriented approach: Types and clusters. In L. R. Bergman, R. B. Cairns, L.-G. Nilsson, & L. Nystedt (Eds.), *Developmental science and the holistic approach* (pp. 137–154). Mahwah, NJ: Erlbaum.
- Bergman, L. R., & El-Khoury, B. M. (2002). SLEIPNER (Version 2.1). [Computer software]. Stockholm, Sweden.
- Bergman, L. R., & Trost, K. (2006). The person-oriented versus the variable-oriented approach: Are they complementary, opposites, or exploring different worlds? *Merrill-Palmer Quarterly, 52*(3), 601–632. <https://doi.org/10.1353/mpq.2006.0023>
- Bernardin, H. J., Cooke, D. K., & Villanova, P. (2000). Conscientiousness and agreeableness as predictors of rating leniency. *Journal of Applied Psychology, 85*(2), 232–236. <https://doi.org/10.1037/0021-9010.85.2.232>

- Berry, C. M., Ones, D. S., & Sackett, P. R. (2007). Interpersonal deviance, organizational deviance, and their common correlates: A review and meta-analysis. *Journal of Applied Psychology, 92*(2), 410–424. <https://doi.org/10.1037/0021-9010.92.2.410>
- Blair, C. A., Hoffman, B. J., & Helland, K. R. (2008). Narcissism in organizations: A multisource appraisal reflects different perspectives. *Human Performance, 21*(3), 254. <https://doi.org/10.1080/08959280802137705>
- Blickle, G., Schlegel, A., Fassbender, P., & Klein, U. (2006). Some personality correlates of business white-collar crime. *Applied Psychology, 55*(2), 220–233. <https://doi.org/10.1111/j.1464-0597.2006.00226.x>
- Borgen, F. H., & Barnett, D. C. (1987). Applying cluster analysis in counseling psychology research. *Journal of Counseling Psychology, 34*(4), 456–468. <https://doi.org/10.1037/0022-0167.34.4.456>
- Brown, M. E., & Treviño, L. K. (2014). Do role models matter? An investigation of role modeling as an antecedent of perceived ethical leadership. *Journal of Business Ethics, 122*(4), 587–598. <https://doi.org/10.1007/s10551-013-1769-0>
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes, 97*(2), 117–134. <https://doi.org/10.1016/j.obhdp.2005.03.002>

- Brunell, A. B., Gentry, W. A., Campbell, W. K., Hoffman, B. J., Kuhnert, K. W., & DeMarree, K. G. (2008). Leader emergence: The case of the narcissistic leader. *Personality and Social Psychology Bulletin, 34*(12), 1663–1676.
- Burns, J. M. (2003). *Transforming leadership: A new pursuit of happiness*. New York: Atlantic Monthly Press.
- Campbell, S., & Campbell, W. K. (2009). On the self-regulatory dynamics created by the peculiar benefits and costs of narcissism: A contextual reinforcement model and examination of leadership. *Self and Identity, 8*(2), 214.  
<https://doi.org/10.1080/15298860802505129>
- Christie, R. (1970). Scale construction. In R. Christie & F. L. Geis (Eds.), *Studies in Machiavellianism* (pp. 10–34). New York: Academic Press.
- Christie, R., & Geis, F. L. (1970). *Studies in Machiavellianism*. New York: Academic Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, N.J.: L. Erlbaum Associates,.
- Cohen, W. A. (2010). *Drucker on leadership: New lessons from the father of modern management* (1st ed). San Francisco, CA: Jossey-Bass.
- Collins, L. M., Fidler, P. L., Wugalter, S. E., & Long, J. D. (1993). Goodness-of-Fit Testing for Latent Class Models. *Multivariate Behavioral Research, 28*(3), 375–389.  
[https://doi.org/10.1207/s15327906mbr2803\\_4](https://doi.org/10.1207/s15327906mbr2803_4)
- Conger, J. A. (1990). The dark side of leadership. *Organizational Dynamics, 19*(2), 44–55.

- Conger, J. A., & Kanungo, R. N. (1998). *Charismatic leadership in organizations*. Thousand Oaks, CA: Sage Publications.
- Corry, N., Merritt, R. D., Mrug, S., & Pamp, B. (2008). The factor structure of the Narcissistic Personality Inventory. *Journal of Personality Assessment, 90*(6), 593. <https://doi.org/10.1080/00223890802388590>
- Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Craig, S. B. (2008, April). *The problem with leadership research*. Presented at the annual conference of the Society for Industrial and Organizational Psychology, San Francisco, CA.
- Craig, S. B., & Gustafson, S. B. (1998). Perceived leader integrity scale: An instrument for assessing employee perceptions of leader integrity. *The Leadership Quarterly, 9*(2), 127–145. [https://doi.org/10.1016/S1048-9843\(98\)90001-7](https://doi.org/10.1016/S1048-9843(98)90001-7)
- Craig, S. B., & Kaiser, R. B. (2012). Destructive leadership. In M. G. Rumsey (Ed.), *The Oxford handbook of leadership* (pp. 439–454). Oxford: Oxford University Press.
- Cronbach, L. J., & Gleser, G. C. (1953). Assessing similarity between profiles. *Psychological Bulletin, 50*(6), 456–473. <https://doi.org/10.1037/h0057173>
- Dasborough, M. T., & Ashkanasy, N. M. (2002). Emotion and attribution of intentionality in leader–member relationships. *The Leadership Quarterly, 13*(5), 615–634. [https://doi.org/10.1016/S1048-9843\(02\)00147-9](https://doi.org/10.1016/S1048-9843(02)00147-9)

- Deluga, R. J. (2001). American presidential Machiavellianism: Implications for charismatic leadership and rated performance. *The Leadership Quarterly*, *12*(3), 339–363.  
[https://doi.org/10.1016/S1048-9843\(01\)00082-0](https://doi.org/10.1016/S1048-9843(01)00082-0)
- Detert, J. R., Treviño, L. K., Burris, E. R., & Andiappan, M. (2007). Managerial modes of influence and counterproductivity in organizations: A longitudinal business-unit-level investigation. *Journal of Applied Psychology*, *92*(4), 993–1005.  
<https://doi.org/10.1037/0021-9010.92.4.993>
- Dienesch, R. M., & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further development. *The Academy of Management Review*, *11*(3), 618–634. <https://doi.org/10.2307/258314>
- Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The Mini-IPIP Scales: Tiny-yet-effective measures of the Big Five factors of personality. *Psychological Assessment*, *18*(2), 192–203. <https://doi.org/10.1037/1040-3590.18.2.192>
- Duffy, M. K., Ganster, D. C., & Pagon, M. (2002). Social undermining in the workplace. *The Academy of Management Journal*, *45*(2), 331–351. <https://doi.org/10.2307/3069350>
- Einarsen, S., Aasland, M. S., & Skogstad, A. (2007). Destructive leadership behaviour: A definition and conceptual model. *The Leadership Quarterly*, *18*(3), 207–216.  
<https://doi.org/10.1016/j.leaqua.2007.03.002>
- Emmons, R. A. (1984). Factor analysis and construct validity of the Narcissistic Personality Inventory. *Journal of Personality Assessment*, *48*(3), 291.

- Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology*, 52(1), 11–17. <https://doi.org/10.1037/0022-3514.52.1.11>
- Foti, R. J., & Hauenstein, N. M. A. (2007). Pattern and variable approaches in leadership emergence and effectiveness. *Journal of Applied Psychology*, 92(2), 347.
- Galvin, B. M., Waldman, D. A., & Balthazard, P. (2010). Visionary communication qualities as mediators of the relationship between narcissism and attributions of leader charisma. *Personnel Psychology*, 63(3), 509–537.
- Goldberg, L. R. (1999). A broad-bandwidth, public-domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. J. Deary, F. DeFruyt, & F. Ostendorf (Eds.), *Personality psychology in Europe* (Vol. 7, pp. 7–28). Tilburg, The Netherlands: Tilburg University Press.
- Goldman, A. (2006). High toxicity leadership. *Journal of Managerial Psychology*, 21(8), 733. <https://doi.org/10.1108/02683940610713262>
- Graziano, W. G., Jensen-Campbell, L. A., & Hair, E. C. (1996). Perceiving interpersonal conflict and reacting to it: The case for agreeableness. *Journal of Personality and Social Psychology*, 70(4), 820–835. <https://doi.org/10.1037/0022-3514.70.4.820>
- Grijalva, E., Harms, P. D., Newman, D. A., Gaddis, B. H., & Fraley, R. C. (2015). Narcissism and leadership: A meta-analytic review of linear and nonlinear relationships. *Personnel Psychology*, 68(1), 1–47. <https://doi.org/10.1111/peps.12072>

- Gustafson, S. B., & Ritzer, D. R. (1995). The dark side of normal: A psychopathy-linked-pattern called aberrant self-promotion. *European Journal of Personality*, *9*(3), 147–183.
- Hagenaars, J. A., & McCutcheon, A. L. (Eds.). (2002). *Applied latent class analysis models*. New York: Cambridge University Press.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *The Academy of Management Review*, *9*(2), 193–206.  
<https://doi.org/10.2307/258434>
- Harvey, P., Stoner, J., Hochwarter, W., & Kacmar, C. (2007). Coping with abusive supervision: The neutralizing effects of ingratiation and positive affect on negative employee outcomes. *The Leadership Quarterly*, *18*(3), 264–280.  
<https://doi.org/10.1016/j.leaqua.2007.03.008>
- Hedges, L. V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. Orlando: Academic Press.
- Hoffman, B. J., Strang, S. E., Kuhnert, K. W., Campbell, W. K., Kennedy, C. L., & LoPilato, A. C. (2013). Leader narcissism and ethical context effects on ethical leadership and leader effectiveness. *Journal of Leadership & Organizational Studies*, *20*(1), 25–37.  
<https://doi.org/10.1177/1548051812465891>
- Hoffman, B. J., Woehr, D. J., Maldagen-Youngjohn, R., & Lyons, B. D. (2011). Great man or great myth? A quantitative review of the relationship between individual

- differences and leader effectiveness. *Journal of Occupational and Organizational Psychology*, 84(2), 347–381. <https://doi.org/10.1348/096317909X485207>
- Hogan, J., Hogan, R., & Kaiser, R. B. (2011). Management derailment. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology* (1st ed., Vol. 3, Maintaining, expanding, and contracting the organization). Washington, D.C.: American Psychological Association.
- Hogan, R. (2007). *Personality and the fate of organizations*. Mahwah, NJ: Erlbaum.
- Hogan, R., Curphy, G. J., & Hogan, J. (1994). What we know about leadership: Effectiveness and personality. *American Psychologist*, 49(6), 493–504.  
<https://doi.org/10.1037/0003-066X.49.6.493>
- Hogan, R., & Hogan, J. (1997). *Hogan Development Survey manual*. Tulsa, OK: Hogan Assessment Systems.
- Hogan, R., & Hogan, J. (2001). Assessing leadership: A view from the dark side. *International Journal of Selection and Assessment*, 9(1-2), 40–51.  
<https://doi.org/10.1111/1468-2389.00162>
- Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology*, 9(2), 169–180. <https://doi.org/10.1037/1089-2680.9.2.169>
- Hogan, R., Raskin, R., & Fazzini, D. (1990). The dark side of charisma. In K. E. Clark & M. B. Clark (Eds.), *Measures of leadership* (pp. 343–354). West Orange, NJ: Leadership Library of America, Inc.

- Hoobler, J. M., & Brass, D. J. (2006). Abusive supervision and family undermining as displaced aggression. *Journal of Applied Psychology, 91*(5), 1125–1133.  
<https://doi.org/10.1037/0021-9010.91.5.1125>
- House, R. J., & Howell, J. M. (1992). Personality and charismatic leadership. *The Leadership Quarterly, 3*, 81–108.
- Hunter, S. T. (2012). (un)ethical leadership and identity: What did we learn and where do we go from here? *Journal of Business Ethics, 107*(1), 79–87.  
<https://doi.org/10.1007/s10551-012-1301-y>
- IBM Corp. (2010). IBM SPSS (Version Version 19.0). Armonk, NY: IBM Corp.
- James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology, 69*(1), 85–98. <https://doi.org/10.1037/0021-9010.69.1.85>
- James, L. R., Demaree, R. G., & Wolf, G. (1993). An assessment of within-group interrater agreement. *Journal of Applied Psychology, 78*(2), 306–309.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits--self-esteem, generalized self-efficacy, locus of control, and emotional stability--with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*(1), 80–92. <https://doi.org/10.1037/0021-9010.86.1.80>
- Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology, 87*(4), 765–780.  
<https://doi.org/10.1037/0021-9010.87.4.765>

- Judge, T. A., & LePine, J. A. (2007). The bright and dark sides of personality: Implications for personnel selection in individual and team contexts. In J. Langan-Fox, C. Cooper, & R. Klimoski (Eds.), *Research companion to the dysfunctional workplace: Management challenges and symptoms* (pp. 332–355). Cheltenham, UK: Edward Elgar Publishing.
- Judge, T. A., LePine, J. A., & Rich, B. L. (2006). Loving yourself abundantly: Relationship of the narcissistic personality to self- and other perceptions of workplace deviance, leadership, and task and contextual performance. *Journal of Applied Psychology, 91*(4), 762–776. <https://doi.org/10.1037/0021-9010.91.4.762>
- Judge, T. A., Piccolo, R. F., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The Leadership Quarterly, 20*(6), 855–875. <https://doi.org/10.1016/j.leaqua.2009.09.004>
- Kaiser, R. B., & Craig, S. B. (2014). Destructive leadership in and of organizations. In D. V. Day (Ed.), *The Oxford handbook of leadership and organizations* (pp. 260–284). Oxford: Oxford University Press.
- Kaiser, R. B., & Hogan, R. (2007). The dark side of discretion: Leader personality and organizational decline. In R. Hooijberg, J. G. Hunt, J. Antonakis, K. B. Boal, & N. Lane (Eds.), *Being there even when you are not: Leading through strategy, structures, and systems* (Vol. 4, pp. 177–197). London: Elsevier Science.

- Kaiser, R. B., & Hogan, R. (2010). How to (and how not to) assess the integrity of managers. *Consulting Psychology Journal: Practice and Research*, 62(4), 216–234.  
<https://doi.org/10.1037/a0022265>
- Kaiser, R. B., Hogan, R., & Craig, S. B. (2008). Leadership and the fate of organizations. *American Psychologist*, 63(2), 96.
- Kaiser, R. B., & Overfield, D. V. (2010). The leadership value chain. *The Psychologist-Manager Journal*, 13(3), 164–183. <https://doi.org/10.1080/10887156.2010.500261>
- Kalshoven, K., Den Hartog, D. N., & De Hoogh, A. H. B. (2011). Ethical leader behavior and Big Five factors of personality. *Journal of Business Ethics*, 100(2), 349–366.
- Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (2d ed.). New York: Wiley.
- Kets de Vries, M. F. R., & Miller, D. (1985). Narcissism and leadership: An object relations perspective. *Human Relations*, 38(6), 583–601.
- Kouzes, J. M., & Posner, B. Z. (2003). *Credibility: How leaders gain it and lose it, why people demand it* (1st ed). San Francisco, CA: Jossey-Bass.
- Krasikova, D. V., Green, S. G., & LeBreton, J. M. (2013). Destructive leadership: A theoretical review, integration, and future research agenda. *Journal of Management*, 39(5), 1308–1338.
- Kubarych, T. S., Deary, I. J., & Austin, E. J. (2004). The Narcissistic Personality Inventory: Factor structure in a non-clinical sample. *Personality and Individual Differences*, 36(4), 857–872. [https://doi.org/10.1016/S0191-8869\(03\)00158-2](https://doi.org/10.1016/S0191-8869(03)00158-2)

- LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods, 11*(4), 815–852. <https://doi.org/10.1177/1094428106296642>
- Lindell, M. K., & Brandt, C. J. (1999). Assessing interrater agreement on the job relevance of a test: A comparison of CVI, T, rWG(J)}, and rWG(J)} indexes. *Journal of Applied Psychology, 84*(4), 640–647. <https://doi.org/10.1037/0021-9010.84.4.640>
- Lindell, M. K., Brandt, C. J., & Whitney, D. J. (1999). A revised index of interrater agreement for multi-item ratings of a single target. *Applied Psychological Measurement, 23*(2), 127–135. <https://doi.org/10.1177/01466219922031257>
- Lipman-Blumen, J. (2006). *The allure of toxic leaders: Why we follow destructive bosses and corrupt politicians--and how we can survive them*. Oxford: Oxford University Press.
- Lubke, G. H., & Muthén, B. (2005). Investigating population heterogeneity with factor mixture models. *Psychological Methods, 10*(1), 21–39. <https://doi.org/10.1037/1082-989X.10.1.21>
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods, 1*(2), 130–149. <https://doi.org/10.1037/1082-989X.1.2.130>
- Maccoby, M. (2000). Narcissistic leaders: The incredible pros, the inevitable cons. *Harvard Business Review, 78*(1), 68.

- MacKinnon, D. W. (1944). The structure of personality. In J. M. Hunt (Ed.), *Personality and the behavior disorders: A handbook based on experimental and clinical research* (Vol. 1, pp. 3–48). New York: The Ronald Press Company.
- Magidson, J., & Vermunt, J. (2004). Latent class models. In D. Kaplan (Ed.), *The SAGE Handbook of Quantitative Methodology for the Social Sciences* (pp. 175–198). Newbury Park, CA: Sage.
- Magnusson, D. (1995). Individual development: A holistic, integrated model. In G. H. Elder, K. Lüscher, & P. Moen (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 19–60). Washington, DC: American Psychological Association.
- Magnusson, D. (2000). The individual as the organizing principle in psychological inquiry: A holistic approach. In L. R. Bergman, R. B. Cairns, L.-G. Nilsson, & L. Nystedt (Eds.), *Developmental science and the holistic approach* (pp. 33–48). Mahwah, NJ: Erlbaum.
- Ma, H., Karri, R., & Chittipeddi, K. (2004). The paradox of managerial tyranny. *Business Horizons*, 47(4), 33–40. [https://doi.org/10.1016/S0007-6813\(04\)00046-1](https://doi.org/10.1016/S0007-6813(04)00046-1)
- McCall, M. W., & Lombardo, M. M. (1990). Off the track: Why and how successful executives get derailed. *Bottomline*, 7(9), 24.
- McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of Applied Psychology*, 67(6), 737–743. <https://doi.org/10.1037/0021-9010.67.6.737>

- McCleskey, J. (2013). The dark side of leadership: Measurement, assessment, and intervention. *Business Renaissance Quarterly*, *8*(2/3), 35–53.
- McCrae, R. R. (1996). Social consequences of experiential openness. *Psychological Bulletin*, *120*(3), 323–337. <https://doi.org/10.1037/0033-2909.120.3.323>
- McCrae, R. R., & Costa, P. T. J. (1997). Personality trait structure as a human universal. *American Psychologist*, *52*(5), 509–516. <https://doi.org/10.1037/0003-066X.52.5.509>
- McHoskey, J. W. (1999). Machiavellianism, intrinsic versus extrinsic goals, and social interest: A self-determination theory analysis. *Motivation and Emotion*, *23*(4), 267–283. <https://doi.org/10.1023/A:1021338809469>
- McLachlan, G. J., & Peel, D. (2000). *Finite mixture models*. New York: Wiley. Retrieved from <http://catalog.lib.ncsu.edu/record/NCSU1413439>
- Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods*, *17*(3), 437–455. <https://doi.org/10.1037/a0028085>
- Meyer, J. P., Stanley, L. J., & Parfyonova, N. M. (2012). Employee commitment in context: The nature and implication of commitment profiles. *Journal of Vocational Behavior*, *80*(1), 1–16. <https://doi.org/10.1016/j.jvb.2011.07.002>
- Meyer, J. P., Stanley, L. J., & Vandenberg, R. J. (2013). A person-centered approach to the study of commitment. *Human Resource Management Review*, *23*(2), 190–202. <https://doi.org/10.1016/j.hrmr.2012.07.007>
- Michel, J. S., & Bowling, N. A. (2013). Does dispositional aggression feed the narcissistic response? The role of narcissism and aggression in the prediction of job attitudes and

- counterproductive work behaviors. *Journal of Business and Psychology*, 28(1), 93–105. <https://doi.org/10.1007/s10869-012-9265-6>
- Mullins, A. K. (2015). *The dimensionality of destructive leadership: Toward an integration of the bright and dark sides*. (Unpublished doctoral dissertation). North Carolina State University, Raleigh, NC.
- Mumford, M. D., Connelly, M. S., Helton, W. B., Strange, J. M., & Osburn, H. K. (2001). On the construct validity of integrity tests: Individual and situational factors as predictors of test performance. *International Journal of Selection and Assessment*, 9(3), 240–257. <https://doi.org/10.1111/1468-2389.00177>
- Mumford, M. D., Zaccaro, S. J., Johnson, J. F., Diana, M., Gilbert, J. A., & Threlfall, K. V. (2000). Patterns of leader characteristics: Implications for performance and development. *The Leadership Quarterly*, 11(1), 115–133. [https://doi.org/10.1016/S1048-9843\(99\)00045-4](https://doi.org/10.1016/S1048-9843(99)00045-4)
- Muthén, L. K., & Muthén, B. O. (2010). *MPlus user's guide*. (Sixth edition.). Los Angeles, CA: Muthén & Muthén.
- Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling*, 14(4), 535–569.
- Nystedt, L. (1997). Who should rule? Does personality matter? *European Journal of Personality*, 11(1), 1–14. [https://doi.org/10.1002/\(SICI\)1099-0984\(199703\)11:1<1::AID-PER275>3.0.CO;2-H](https://doi.org/10.1002/(SICI)1099-0984(199703)11:1<1::AID-PER275>3.0.CO;2-H)

- O'Connor, J., Mumford, M. D., Clifton, T. C., Gessner, T. L., & Connelly, M. S. (1995). Charismatic leaders and destructiveness: An historiometric study. *The Leadership Quarterly*, 6(4), 529–555. [https://doi.org/10.1016/1048-9843\(95\)90026-8](https://doi.org/10.1016/1048-9843(95)90026-8)
- Olls, C. W. (2014). *Relations among leader personality traits and subordinates' perceptions of destructive leadership*. (Unpublished master's thesis). North Carolina State University, Raleigh, NC.
- Ouimet, G. (2010). Dynamics of narcissistic leadership in organizations: Towards an integrated research model. *Journal of Managerial Psychology*, 25(7), 713–726.
- Padilla, A., Hogan, R., & Kaiser, R. B. (2007). The toxic triangle: Destructive leaders, susceptible followers, and conducive environments. *The Leadership Quarterly*, 18(3), 176–194. <https://doi.org/10.1016/j.leaqua.2007.03.001>
- Padilla, A., & Mulvey, P. (2008). Leadership toxicity: Sources and remedies. *Organisations and People*, 15(3), 27–37.
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, 74(5), 1197–1208. <https://doi.org/10.1037/0022-3514.74.5.1197>
- Paunonen, S. V., Lönnqvist, J., Verkasalo, M., Leikas, S., & Nissinen, V. (2006). Narcissism and emergent leadership in military cadets. *The Leadership Quarterly*, 17(5), 475–486. <https://doi.org/10.1016/j.leaqua.2006.06.003>

- Penney, L. M., & Spector, P. E. (2002). Narcissism and counterproductive work behavior: Do bigger egos mean bigger problems? *International Journal of Selection and Assessment*, *10*(1-2), 126–134. <https://doi.org/10.1111/1468-2389.00199>
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, *54*(5), 890. <https://doi.org/10.1037/0022-3514.54.5.890>
- Rayner, C., & Cooper, C. L. (2003). The black hole in “bullying at work” research. *International Journal of Management and Decision Making*, *4*(1). <https://doi.org/10.1504/IJMDM.2003.002488>
- Rijsenbilt, A., & Commandeur, H. (2013). Narcissus enters the courtroom: CEO narcissism and fraud. *Journal of Business Ethics*, *117*(2), 413–429. <https://doi.org/10.1007/s10551-012-1528-7>
- Rosenthal, S. A., & Pittinsky, T. L. (2006). Narcissistic leadership. *The Leadership Quarterly*, *17*(6), 617–633. <https://doi.org/10.1016/j.leaqua.2006.10.005>
- Rowland, D., & Higgs, M. J. (2008). *Sustaining change: Leadership that works*. Chichester: Jossey-Bass.
- Sackett, P. R., Berry, C. M., Wiemann, S. A., & Laczko, R. M. (2006). Citizenship and counterproductive behavior: Clarifying relations between the two domains. *Human Performance*, *19*(4), 441–464. [https://doi.org/10.1207/s15327043hup1904\\_7](https://doi.org/10.1207/s15327043hup1904_7)

- Salgado, J. F. (2002). The Big Five personality dimensions and counterproductive behaviors. *International Journal of Selection and Assessment*, 10(1-2), 117–125.  
<https://doi.org/10.1111/1468-2389.00198>
- Sankowsky, D. (1995). The charismatic leader as narcissist: Understanding the abuse of power. *Organizational Dynamics*, 23(4), 57–71. [https://doi.org/10.1016/0090-2616\(95\)90017-9](https://doi.org/10.1016/0090-2616(95)90017-9)
- Schat, A. C. H., Frone, M. R., & Kelloway, E. K. (2006). Prevalence of workplace aggression in the U.S. workforce: Findings from a national study. In J. Barling, J. J. Hurrell, & E. K. Kelloway (Eds.), *Handbook of workplace violence* (pp. 47–90). Thousand Oaks, CA: SAGE.
- Schaubroeck, J. M., Hannah, S. T., Avolio, B. J., Kozlowski, S. W. J., Lord, R. G., Treviño, L. K., ... Peng, A. C. (2012). Embedding ethical leadership within and across organization levels. *Academy of Management Journal*, 55(5), 1053.
- Schmidt, A. A. (2008). *Development and validation of the Toxic Leadership Scale*. University of Maryland, College Park.
- Schuman, H. W., & Presser, S. (1981). *Questions and answers in attitude surveys: Experiments on question form, wording, and context*. New York: Academic Press.
- Schyns, B., & Schilling, J. (2013). How bad are the effects of bad leaders? A meta-analysis of destructive leadership and its outcomes. *The Leadership Quarterly*, 24(1), 138–158. <https://doi.org/10.1016/j.leaqua.2012.09.001>

- Shaw, J. B., Erickson, A., & Harvey, M. (2011). A method for measuring destructive leadership and identifying types of destructive leaders in organizations. *The Leadership Quarterly*, 22(4), 575–590. <https://doi.org/10.1016/j.leaqua.2011.05.001>
- Skinner, H. A. (1978). Differentiating the contribution of elevation, scatter and shape in profile similarity. *Educational and Psychological Measurement*, 38(2), 297–308. <https://doi.org/10.1177/001316447803800211>
- Smith, J. A., & Foti, R. J. (1998). A pattern approach to the study of leader emergence. *The Leadership Quarterly*, 9(2), 147–160. [https://doi.org/10.1016/S1048-9843\(98\)90002-9](https://doi.org/10.1016/S1048-9843(98)90002-9)
- Tepper, B. J. (2000). Consequences of abusive supervision. *The Academy of Management Journal*, 43(2), 178–190. <https://doi.org/10.2307/1556375>
- Tepper, B. J. (2007). Abusive supervision in work organizations: Review, synthesis, and research agenda. *Journal of Management*, 33(3), 261–289. <https://doi.org/10.1177/0149206307300812>
- Tepper, B. J., Duffy, M. K., Henle, C. A., & Lambert, L. S. (2006). Procedural injustice, victim precipitation, and abusive supervision. *Personnel Psychology*, 59(1), 101–123. <https://doi.org/10.1111/j.1744-6570.2006.00725.x>
- Torregiante, K. M. (2005). *Destructive personality traits and leadership performance* (Unpublished doctoral dissertation). North Carolina State University, Raleigh, NC.
- Vermunt, J. K., & Magidson, J. (2002). Latent class cluster analysis. In J. A. Hagenaars & A. L. McCutcheon (Eds.), *Applied latent class analysis* (pp. 89–106). New York:

- Cambridge University Press,. Retrieved from  
<http://catalog.lib.ncsu.edu/record/NCSU1551661>
- Walumbwa, F. O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: Mediating roles of ethical leadership and work group psychological safety. *Journal of Applied Psychology, 94*(5), 1275–1286. <https://doi.org/10.1037/a0015848>
- Ward, J. H. (1963). Note on the independent contribution of a predictor. *Psychological Reports, 12*(1), 197–198. <https://doi.org/10.2466/pr0.1963.12.1.197>
- Watson, P. J., & Biderman, M. D. (1993). Narcissistic Personality Inventory factors, splitting, and self-consciousness. *Journal of Personality Assessment, 61*(1), 41.
- Watts, A. L., Lilienfeld, S. O., Smith, S. F., Miller, J. D., Campbell, W. K., Waldman, I. D., ... Faschingbauer, T. J. (2013). The double-edged sword of grandiose narcissism: Implications for successful and unsuccessful leadership among U.S. Presidents. *Psychological Science, 24*(12), 2379–2389.