Consulting Psychology Journal: Practice and Research
2011, Vol. 63, No. 4, 219–242

1065-9293/11/$12.00 DOI: 10.1037/a0026795

PERSONALITY, LEADER BEHAVIOR, AND OVERDOING IT

Robert B. Kaiser
Kaiser Leadership Solutions, Greensboro, NC

Joyce Hogan
Hogan Assessment Systems, Tulsa, OK

This study tests predictions about links between personality and ratings of four leader behavior styles. It also examines the assumption that strengths can become weaknesses by determining the level of personality scores associated with ratings of "the right amount" vs. "too much" of the leader behaviors. Multivariate analyses in a sample of 126 managers and executives rated by 1,512 coworkers supported 93% of the predicted personality-leader behavior relationships, with an average observed effect size of $R^2 = .26$. Distinct personality profiles defined each of the leader behaviors, and complementary behaviors were defined by opposing personality profiles. Consistent with recent findings of curvilinear personality-performance relationships, personality scores about 1 *SD* above the normative mean predicted doing too much of the leader behaviors. However, scores slightly below the mean also predicted doing too much of some leader behaviors. The findings indicate that leader behavior is related to a broad range of personality dimensions and show how both high and low scores on personality dimensions can compromise performance through an association with excessive behavior.

Keywords: personality, leadership, strengths overused, strengths become weaknesses

Leadership research has historically minimized the role of personality. Two influential reviews published more than 50 years ago concluded that the relationship between personality and leadership is negligible (Mann, 1959; Stogdill, 1948). This conclusion became conventional wisdom and discouraged further research until Lord, DeVader, and Alliger's (1986) reanalysis of the earlier work revealed significant methodological flaws, conceptual confusions, and misinterpretations. Since then, better theory and better research methods show that the historical antipathy toward personality was misguided. For example, one meta-analysis found that, when organized in terms of the widely endorsed five-factor model of personality, the multiple correlation between personality and leadership is .48 (Judge, Bono, Ilies, & Gerhardt, 2002). In contrast, the correlation between intelligence and leadership is .27 (Judge, Ilies, & Colbert, 2004). Based on the empirical evidence, personality appears to be the strongest single domain of individual differences related to leadership (Hogan & Kaiser, 2010).

Robert B. Kaiser, President, Kaiser Leadership Solutions Greensboro, NC; Joyce Hogan, Vice President, Hogan Assessment Systems, Tulsa, OK.

Robert B. Kaiser has a commercial interest in the Leadership Versatility Index and Joyce Hogan has a commercial interest in the Hogan Personality Inventory which were used in the research reported in this article.

The authors thank two anonymous reviewers for helpful feedback on a draft.

Correspondence concerning this article should be addressed to Robert B. Kaiser, Kaiser Leadership Solutions, 1903-G Ashwood Ct., Greensboro, NC 27455. E-mail: robertbkaiser@gmail.com or Joyce Hogan, Hogan Assessment Systems, Inc., 2622 E. 21st Street, Tulsa, OK 74114. E-mail: jhogan@hoganassessments.com

The integral role of personality in leadership seems well understood by managers, consultants, and talent management professionals who have used personality assessment in selection and development for decades (e.g., Moore, 1987; Scott & Reynolds, 2010). A case can be made that leadership research has lagged behind practice in this regard. The present study is designed to help bridge this gap by examining theory-based relationships between a broad range of personality dimensions and four specific leader behaviors. This research also examines a common assumption in leadership practice that has received little empirical attention—the assumption that strengths can become weaknesses when overused.

We begin by reviewing prior research to specify personality constructs and Yukl's (2006) taxonomy of task-oriented, and change-oriented leadership to develop theoretical linkages between seven dimensions of personality and four specific leader behaviors. Then we trace the origins of the insight that strengths can become liabilities when leaders overuse them and review research suggesting personality may be related to this phenomenon. We consider how extreme personality dispositions, which approach "darkside" personality flaws, may be associated with doing "too much" of certain leadership behaviors and develop predictions about the form of these relationships. The core of the article concerns statistical tests of these predicted personality-leader behavior relationships, including point predictions on the continuum where personality dimensions change from being associated with the optimal use of a behavior to overdoing that behavior. Our purpose is to understand the extreme personalities who often occupy leadership roles and their assets and liabilities. We close with a discussion of the implications of our findings for future research and the selection and development of managers.

Personality and Leader Behavior

The leadership literature is vast but fragmented (Bennis, 2007; Yukl, 2006). For instance, researchers typically focus on either leader traits or leader behaviors but, despite the conceptual relatedness of traits and behavior, rarely consider both. Only recently has empirical work begun to integrate across these two paradigms (e.g., DeRue, Nahrgang, Wellman, & Humphrey, 2011). An emerging view is that personality is related to leadership effectiveness and this relationship is moderated by leader behavior (Hogan & Kaiser, 2005).

Personality represents characteristic ways of responding to the environment and involves dispositions to think, feel, and behave in a particular manner (Roberts, 2006). The extent to which leader behavior is an expression of personality is partly a function of the leader regulating his or her behavior in an automatic versus controlled fashion (Baumeister, Muraven, & Tice, 2000; Shiffrin & Schneider, 1977). To the extent that leaders regulate behavior in an automatic, unconscious way, personality will be more manifest. Alternatively, to the extent that leaders are more mindful and are self-regulating in a conscious manner, their behavior will be less influenced by personality and more by deliberate choices to address the presenting situation.

Perhaps the most commonly encountered leaders in practice are managers in organizations, and that is the population we studied in the present research. Managerial jobs are relatively complex, ambiguously structured, and demanding (Levinson, 1988; McCall, Lombardo, & Morrison, 1988; Zacarro, 2001), which taxes the psychological resources needed for controlled self-regulation (Baumeister et al., 2000) and makes the influence of personality on behavior more likely. Managerial jobs also have more autonomy and discretion than nonmanagerial jobs; they offer greater latitude for managerial choice and that provides more opportunity for personality to operate (Barrick & Mount, 1993; Kaiser & Hogan, 2007). For these reasons, personality is likely to be highly related to the leadership behavior of managers.

Organizing Constructs

The erroneous conclusions drawn from early research claiming that personality plays a trivial role in leadership can be attributed largely to conceptual confusion. In their review of the leadership literature, Judge et al. (2002) noted the problem of "a lack of structure in describing personality,

leading to a wide range of traits being investigated under different labels" (p. 766). Hughes, Ginnett, and Curphy (1996) also cited problems with the lack of structure masking personality-leadership relations; House and Aditya (1997) added that the lack of theory to guide the search for personality characteristics associated with leadership inhibited empirical results. However, the widespread adoption of the five-factor model (FFM) of personality has provided the conceptual guidance needed to organize and interpret the findings. Three reviews have considered the research literature through the lens of the FFM and found consistent and coherent relationships between personality and leadership (DeRue et al., 2011; Hogan, Curphy, & Hogan, 1994; Judge et al., 2002).

It is important to recognize that the FFM is not a measure of personality; rather, it is a taxonomy for organizing and classifying personality scales based on their statistical interrelations. Just as the Linnean taxonomy of biology classifies living organisms in a systematic framework based on similarities and differences, the FFM provides a framework for identifying similarities and differences in personality scales. The FFM distinguishes among five relatively independent factors, labeled as (and including such qualities as) Extraversion (sociable, assertive, active); Agreeableness (trusting, accommodating, caring); Conscientiousness (reliable, dependable, hardworking); Emotional Stability (adjusted, composed, resilient); and Intellect-Openness to Experience (educated, imaginative, unconventional). Substantial research supports the validity and generalizability of the FFM across different types of assessments, languages, and cultures (Digman, 1990; Goldberg, 1993; John, 1990; McCrae & Costa, 1997; Wiggins, 1996).

Another way in which the leadership literature is fragmented is that there is a plethora of leader behavior constructs and the field lacks a generally accepted taxonomy for classifying them. We chose to organize our research with the taxonomy proposed by Yukl (2006) that distinguishes interpersonal-oriented, task-oriented, and change-oriented categories of leader behavior. We used this framework because it is parsimonious yet accounts for the majority of commonly studied constructs (Yukl, 2006) and has been used to good effect for organizing leader behaviors in meta-analytic research (DeRue et al., 2011).

According to Yukl, leaders use interpersonal-oriented behaviors to show concern for employees' welfare, seek their input and involvement, and maintain relationships within the group. Examples of leader behaviors that can be classified as interpersonal-oriented include consideration from the two-factor paradigm of leader behavior (Stogdill, 1963) and empowerment (Pearce et al., 2003). Leaders use task-oriented behaviors to structure and organize work, define roles and responsibilities, and focus the group on production. Leader behaviors that can be classified as task-oriented include the other dimension from the two-factor paradigm, initiating structure (Stogdill, 1963), and contingent reward and management-by-exception from Bass' (1985) model of transactional leadership. Finally, leaders use change-oriented behaviors to adapt to shifting environmental demands, establish new directions, and introduce new organizational structures and procedures. Change-oriented behaviors include visionary leadership (Sashkin, 1988) and transformational leadership (Bass, 1985).

Classifying Measures

We took a theory-driven approach to conceptualize the measures we used to study personality and leader behavior in terms of the FFM and Yukl's (2006) taxonomy of leader behaviors. We aligned the personality and leader behavior taxonomies based on prior research on the similarity of their underlying constructs to predict which personality measures would be associated with which behaviors.

We measured personality with the Hogan Personality Inventory (HPI; Hogan & Hogan, 2007), which is based on an expanded version of the FFM that emphasizes relationships with various aspects of occupational performance. The HPI Ambition and Sociability scales reflect two facets of FFM Extraversion that have distinct correlations with different aspects of work performance; Ambition refers to taking initiative, being competitive, and seeking leadership roles whereas Sociability refers to appearing outgoing, talkative, and gregarious. The HPI Interpersonal Sensitivity scale reflects FFM Agreeableness and concerns appearing socially sensitive, considerate, and tactful. The HPI Prudence scale reflects FFM Conscientiousness and concerns appearing reliable, depend-

able, and responsible. The HPI Adjustment scale reflects FFM Emotional Stability and concerns self-confidence, composure, and stable moods. Finally, the HPI Inquisitive and Learning Approach scales reflect two facets of FFM Intellect-Openness; Inquisitive refers to seeming curious, imaginative, and open-minded whereas Learning Approach represents interest in formal education and being intellectually engaged. The HPIs full seven-dimension model, its relationship to the FFM, and descriptions of high and low scores on the scales representing each dimension appear in Table 1.

We measured behavioral style with the Leadership Versatility Index multirater instrument that covers four dimensions: Forceful, Enabling, Strategic, and Operational leadership (Kaiser, Overfield, & Kaplan, 2010; Kaplan & Kaiser, 2006). Forceful leadership is defined as assuming authority and using personal and position power to drive performance; it includes taking charge, decisiveness, and pushing for results. Enabling leadership is defined as creating conditions for others to contribute; it includes empowerment, participation, and supporting people. Strategic leadership is defined as positioning the organization or unit or team to be competitive in the future, and includes setting direction, expanding capability, and supporting innovation. In addition, Operational leadership is defined as focusing the organization on the tactical details needed to implement near-term plans; it includes execution, focusing resources, and using process discipline to move projects along in an orderly fashion.

Forceful and Enabling leader behaviors are social in nature and represent *how* one leads, or one's leadership style, and Strategic and Operational leader behaviors are functional in nature and represent *what* one leads, or the organizational issues on which a leader focuses (Kaiser, Lindberg, & Craig, 2007; Kaiser & Overfield, 2010). *What* one leads includes the changes required for a team or organization to adapt to its environment and the stability needed to execute tasks. In terms of Yukl's (2006) taxonomy, Forceful and Enabling behaviors fit in the interpersonal-oriented category, Operational behaviors fit in the task-oriented category, and Strategic behaviors fit in the change-oriented category.

Personality-Leader Behavior Predictions

Hogan and Holland (2003) demonstrated the importance of aligning personality dimensions with relevant performance dimensions according to their underlying construct to identify meaningful personality-performance relationships. A recent meta-analysis demonstrated the value of using this logic in leadership research by applying the FFM and the Yukl (2006) taxonomy to identify clear patterns of theoretically coherent relationships (DeRue et al., 2011). For instance, the researchers predicted and found relationships between interpersonal-oriented traits, those classified as FFM Agreeableness and Extraversion, and relational leader behaviors (e.g., consideration). They also found relations between task-oriented traits, classified as FFM Conscientiousness and Emotional Stability, and task-oriented leader behaviors (e.g., structure). Finally, they found relations between change-oriented traits, classified as FFM Openness, and change-oriented leader behaviors (e.g., transformational leadership).

We used the foregoing research as a starting point to make predictions in our study, but added the following distinctions. First, prior research indicates that two facets of FFM Extraversion, Ambition and Sociability, have distinct relations with leadership. The Hogan and Holland (2003) meta-analysis found that Ambition was related to leadership whereas Sociability was not. The Judge et al. (2002) meta-analysis found that lower-order traits reflecting the Ambition facet were more strongly correlated with leadership criteria than was the broader Extraversion factor. Second, FFM Intellect-Openness also has two distinct facets, Inquisitive and Learning Approach. The Hogan and Holland (2003) meta-analysis found that Inquisitive was related to performance, particular creative aspects of performance, whereas Learning Approach was related to training outcomes. Therefore, in our predictions concerning leader behavior we focused on Ambition and Inquisitive.

Interpersonal-oriented constructs. Extraversion and Agreeableness are the two FFM factors most clearly associated with interpersonal behavior (McCrae & Costa, 1989). Therefore, we expected the HPI Ambition and Interpersonal Sensitivity scales to be to be associated with the Forceful and Enabling behavior styles. Ambition should be positively related to Forceful behavior because it reflects drive and assertiveness (Kaplan, 1990). Conversely, Interpersonal

Table 1
HPI Personality Dimensions in Relation to the Five-Factor Model

Factor	HPI dimension	Definition	Low scores	High scores
Extraversion	Ambition	Taking initiative, being competitive, and seeking leadership roles	Indecisive and unassertive	Proactive and driven
	Sociability	Outgoing, talkative, and gregarious	Withdrawn and quiet	Expressive and socially engaged
Agreeableness	Interpersonal sensitivity	Socially sensitive, considerate, and tactful	Tough-minded, frank, and direct	Friendly, warm, and cooperative
Conscientiousness	Prudence	Reliable, dependable, and responsible	Non-conforming, impulsive, and flexible	Rule-abiding, organized, and detail-oriented
Emotional Stability	Adjustment	Self-confidence, composure, and stable moods	Tense, irritable, and negative	Steady, resilient, and optimistic
Openness to Experience	Inquisitive	Curious, imaginative, and open-minded	Focused and pragmatic	Creative and visionary
	Learning Approach	Interested in formal education and intellectually engaged	Experiential and practical	Intellectual and worldly

Note. Based on "*Hogan Personality Inventory manual,*" by R. Hogan and J. Hogan, 2007, Hogan Press, Tulsa, OK. Adapted with permission from the publisher.

Sensitivity should be negatively related to Forceful leadership because managers who score low on this scale are tough, frank, and direct, consistent with the assertive drive for results that characterizes Forceful leadership. We expected the reverse relations between these HPI scales and Enabling leadership because Forceful and Enabling are complementary but opposing behaviors that are inversely related (Kaiser & Overfield, 2010; Kaplan & Kaiser, 2003). Ambition should be negatively related to Enabling leadership because competitive status striving and the drive to be in charge are self-focused rather than considerate and empowering of others. Interpersonal Sensitivity should be positively related to Enabling leadership because it concerns the care and consideration of other people that are central to supporting and including others.

We also expected Adjustment, a measure reflecting FFM Emotional Stability, to be related to Forceful and Enabling styles because Emotional Stability has significant implications for interpersonal behavior (Côté & Moskowitz, 1998; Trapnell & Wiggins, 1990). Stable people are more rewarding to deal with—they are secure, patient, and optimistic, less unpredictable and less likely to overreact. Adjustment should be positively related to Enabling leadership because it requires trust to delegate and empower, patience to listen and include others, and optimism to put people at ease and support them. On the other hand, people who are low on Adjustment are anxious, volatile, and overreactive (Hogan & Hogan, 2007). Therefore, we expect low Adjustment to be associated with high Forceful leader behavior—jumping in to take over when the anxious leader worries about performance, being abrasive and critical when under stress, and blaming others when results are not achieved.

Task-oriented constructs. According to DeRue et al. (2011) FFM Conscientiousness and Emotional Stability are the two factors most central to task-oriented leader behavior. Indeed, meta-analyses show that Conscientiousness is the factor most consistently related to task performance (Dudley, Orvis, Labiecki, & Cortina, 2006; Hurtz & Donovan, 2000), followed by Emotional Stability (Barrick & Mount, 1991; Salgado, 1997). Therefore, we expected Prudence and Adjustment, which reflect FFM Conscientiousness and Emotional Stability, respectively, to be related to Operational leadership. In both cases, we expected the relationship to be positive—managers who score high on Prudence are detail-oriented and disciplined (Hogan & Hogan, 2007), which facilitates an Operational focus on implementation and the tactical emphasis on short-term goals. People who score high on Adjustment are calm and steady under stress, which facilitates the consistency and predictability of Operational leadership.

We also expected Inquisitive to be negatively related to Operational leader behaviors. Inquisitive characteristics such as taking a holistic, broadminded, and future-oriented perspective contrast with the narrow, short-term focus that characterizes Operational leadership. Indeed, managers with low scores on FFM Intellect-Openness are focused and pragmatic, which are keys to Operational execution (Judge, Piccolo, & Kosalka, 2009).

Change-oriented constructs. FFM Intellect-Openness is the factor most closely associated with change (McCrae, 1993). Managers with high scores on Inquisitive, which reflects one significant aspect of FFM Intellect-Openness, are creative, curious, big-picture thinkers who are often regarded as visionary; these qualities are needed for setting direction and promoting innovation to both introduce and adapt to change (Hogan & Hogan, 2007). Therefore, we expected a positive relationship between Inquisitive and Strategic leadership. We further expected a negative relationship between Prudence and Strategic leadership. Managers with low scores on Prudence are nonconforming and flexible, which makes them more likely to support innovation and changes in direction (Hogan & Hogan, 2007). Our predictions regarding the relations between the HPI personality dimensions and the LVI leader behaviors are summarized in Table 2.

Strengths Overused

Following McCall and Lombardo's (1983) seminal research on derailment, the phrase, "a strength can become a weakness," is now used regularly in discussions of leadership. In their analysis of what gets executives fired, these researchers observed the ironic pattern where qualities that were initially

Table 2
Predicted Relationships Between Personality Dimensions and Leader Behaviors

	Leader behavior			
Personality dimension	Forceful	Enabling	Strategic	Operational
Ambition	*Positive*	*Negative*		
Sociability				
Interpersonal sensitivity	*Negative*	*Positive*		
Prudence			*Negative*	*Positive*
Adjustment	*Negative*	*Positive*		*Positive*
Inquisitive			*Positive*	*Negative*
Learning approach				

regarded as assets came to be liabilities. They noted such cases as when managers who were commended early on for their assertiveness and drive were later criticized for being bossy and overbearing. Another common pattern emerged where detail-oriented managers with deep technical expertise were well regarded in middle-management roles but came to be seen as too tactical and unable to think strategically at the executive level. This dynamic of strengths becoming weaknesses has been used to explain many CEO failures in recent years (McCall, 2009).

Personality and Strengths Overused

The early derailment research identified two distinct themes, strengths overused and personality flaws (Hogan, Hogan, & Kaiser, 2010). Bentz (1985), in an analysis of failed executives at Sears, concluded that each of them had what he termed an "overriding personality defect." McCall and Lombardo (1983) also identified personality themes such as abrasiveness, insensitivity, and rigidity among derailed managers. However, this early research did not explore the links between personality and strengths overused. Recent research, however, suggests how extreme standing on desirable personality dispositions may undermine leadership effectiveness through an association with excessive behavior.

New studies have challenged the assumption of linear relationships between personality and performance, where increasing levels of a trait are associated with increasing levels of performance. These studies have found that higher levels of a trait may be related to higher levels of performance but only up to a point, after which performance may actually drop off (Benson & Campbell, 2007; Le, Oh, Robbins, Ilies, Holland, & Westrick, 2010). For example, Le et al. (2010) found that scores on FFM Conscientiousness increased with supervisor ratings of task performance up to 1 *SD* above the mean on Conscientiousness but Conscientiousness scores higher than that were associated with *decreases* in performance. The same trend was found between personality scores for FFM Emotional Stability and both task performance and citizenship behavior. Managers scoring highest on Emotional Stability were rated lower than those in the average range. Similarly, a separate study by Ames and Flynn (2007) reported a curvilinear relationship between assertiveness, which aligns with the FFM Extraversion facet of Ambition, and leadership effectiveness. Leaders who scored high on assertiveness had teams that got more done but the team members reported less favorable work attitudes; productivity also began to decline at the highest levels of assertiveness. Although Conscientiousness, Emotional Stability, and assertiveness are commonly regarded as desirable attributes in leaders, these studies demonstrate that they can undermine performance at extreme levels.

The foregoing research establishes empirical links between personality and strengths overused. However, the topic deserves further exploration. Studies showing that extreme levels of desirable personality characteristics are associated with undesirable outcomes are illuminating, but the mechanisms linking them remain unspecified. For example, what behaviors of extremely assertive leaders degrade employee motivation and engagement? Furthermore, the

recent research raises more questions about the relationship between personality and strengths overused. For example, what personality dimensions besides Conscientiousness, Emotional Stability, and assertiveness may also be counterproductive at the extremes? And is it possible that extremely *low* standing on some personality dimensions may also be associated with excessive behavior? This study addresses some of these additional questions by determining the level of the personality dimensions, both at the high and low ends of the continuum, that is associated with extreme, counterproductive forms of their associated behaviors.

Personality and Overdoing It Predictions

The connection between personality and strengths overused is straightforward to conceptualize. People with extreme scores on a given personality dimension exhibit more extreme behavior than individuals with scores in the middle range (Schuman & Presser, 1981). For example, a manager who scores 2 *SD*s above the mean on assertiveness is more likely to initiate activity than is a manager who scores near the mean. However, asserting authority and giving directives may not be the most appropriate response in some leadership situations; when subordinates are highly skilled and motivated, for example, they prefer to be delegated responsibility rather than told what to do and how to do it (Vecchio & Boatright, 2002). In such a situation, the assertive manager's strength could demotivate her staff if she is unable to resist her inclination to assert authority. However, it is also possible that extremely *low* assertiveness could be associated with excessive behavior of other forms. For instance, a manager at the very low end of assertiveness may not provide adequate direction and structure. On the upside, this could be seen as empowering, but on the downside it may be seen as an abdication of authority.

We anticipated that excessive leader behavior would be associated with (1) high personality scores for each of the positively related HPI scale-LVI behavior predictions, and (2) low personality scores for each of the negatively related HPI scale-LVI behavior predictions. For instance, consider the two classic patterns identified in the initial derailment research (McCall & Lombardo, 1983). The assertive manager who comes across as bossy and overbearing (*too* Forceful in LVI terms) is likely to be high on Ambition but low on Interpersonal Sensitivity. The detail-oriented executive who is seen as too tactical, narrow in perspective, and mired in the minutia (*too* Operational, in LVI terms) is likely to be high on Prudence but low on Inquisitive.

A remaining question concerns just how high or low personality scores need to be to be associated with an excessive degree of leader behavior. We anticipated where these points would occur by considering the inflection points where positive personality-performance relationships stopped increasing in both the Ames and Flynn (2007) study of assertiveness and the Le et al. study (Le et al., 2010) of Conscientiousness and Emotional Stability. This value was remarkably similar in both studies, about 1 *SD* above the mean in each case. Therefore, we expected that the functions relating personality to leader behavior would go from being associated with an optimal level to too much of the behavior around 1 *SD* above the mean on the personality continuum, approximately the 84th percentile, for positive personality-behavior predictions. In the absence of empirical findings on the low end of the personality continuum, we assumed a mirror-image pattern where personality scores around 1 *SD* below the mean, approximately the 16th percentile, would be associated with the crossover to too much of the leader behavior.

Method

Sample

The data consisted of scores on the HPI for 126 managers and behavior ratings from 1,512 of their coworkers on the LVI version 3.0. Participants came from both American and European firms. Data were gathered as part of a leadership training program or executive coaching services.

The participants were mostly male (78.6%) and the mean age was 45.17 years ($SD = 6.70$). They reported a mean of 15.92 years of managerial experience ($SD = 7.08$) and mean tenure in their current job of 3.13 years ($SD = 3.27$). Most worked in business organizations—57.1% in publicly

traded companies, 19.8% in privately held companies, and 9.5% in government institutions (13.5% did not report their type of organization). The sample worked primarily in upper management—about a third of the sample reported working at either the Executive level, the Director level, or in Middle Management.

Measures

Personality predictors. The HPI (Hogan & Hogan, 2007), contains seven primary scales to measure each personality dimension. The seven-dimension model, its relationship to the FFM, and descriptions of high and low scores on the scales representing each dimension appear in Table 1. Structural modeling research supports the seven factor structure for the HPI scales (Hogan et al., 2007) and their relationship to the FFM (Hogan, Barrett, & Hogan, 2007; Smith & Ellingson, 2002). Hogan and Hogan (2007) and Hogan and Holland (2003) summarize reliability and validity evidence for the HPI showing that the seven factors have unique relationships with a broad range of theoretically relevant occupational criteria.

The norming sample used to interpret HPI raw scores in terms of percentiles included 156,614 cases of job applicants and employees from various occupational groups in the U.S. workforce. Sex, race/ethnicity, and age are represented; both selection and development cases are included. Means and standard deviations for the percentile scores on the HPI scales in the current research sample appear in Table 3.

Leader behavior criteria. The LVI version 3.0 is a multirater instrument that contains four primary scales, each composed of 12 items, concerning Forceful, Enabling, Strategic, and Operational behaviors (Kaiser et al., 2010). Prior research supports the structure, reliability, and validity of the LVI as a measure of these four dimensions that shows the expected patterns of convergent and discriminant relations with other measures of leader behavior and effectiveness criteria (Kaiser et al., 2010; Staal, 2008; Vassar, 2008). Crucial to our study, the LVI behavior items are rated with a unique, "too little/too much" scale that ranges from −4 to +4. Degrees of "too little" are represented from −4 to −1, "the right amount" is represented by 0, and degrees of too much are represented from +1 to +4 (see Figure 1). Research indicates that raters can reliably make these distinctions and that the scale is a valid method for measuring strengths overused (Kaiser & Kaplan, 2005; Kaiser & Overfield, 2011).

Procedures

Leader behavior scores were calculated based on coworkers' ratings using a procedure recommended by Oh and Berry (2009). These researchers demonstrated that the most valid and reliable view of leader behavior reflects a composite of ratings from the superior, peer, and subordinate

Table 3
Descriptive Statistics for Personality Variables

	M	*SD*
Ambition	65.63	29.66
Sociability	55.42	27.28
Interpersonal sensitivity	47.26	32.66
Prudence	45.21	28.40
Adjustment	50.75	28.81
Inquisitive	55.60	26.49
Learning approach	64.94	24.68

Note. $N = 126$ managers and executives. Scores are expressed in percentiles relative to a norm group composed of a representative sample of working adults.

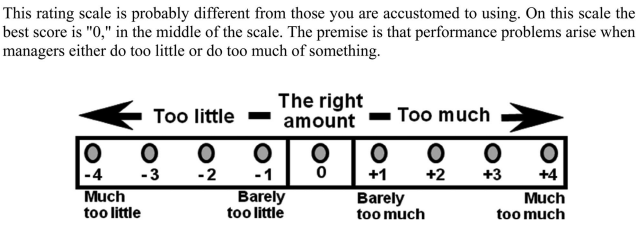

Figure 1. The "Too Little/Too Much" rating scale. Reproduced from R. B. Kaiser, D. V. Overfield, and R. E. Kaplan, 2010, *Leadership Versatility Index® version 3.0: Facilitator's Guide*, Greensboro, NC: Kaplan DeVries Inc. Copyright 2010 by Kaplan DeVries Inc. Used with permission from the publisher.

perspectives. We computed LVI scores by first calculating the mean rating across all raters within the superior, peer, and subordinate groups and then calculated the grand mean across these three groups for each target manager. We did this first for all 48 LVI items and then calculated the average of these scores across the 12 items comprising each of the four scales. Thus, the leader behavior ratings reflected a unit-weighted view from each of the three primary coworker perspectives.

To justify aggregating LVI ratings according to the procedure just described, we considered the degree of rating similarity both within and across rater groups (LeBreton, Burgess, Kaiser, Atchley, & James, 2003). Specifically, for the superior, peer, and subordinate groups as well as the aggregation across these groups, we calculated interrater agreement using the $r_{wg(j)}$ statistic (James, Demaree, & Wolf, 1984) and interrater reliability using intraclass correlations (ICC) based on one-way random effects analysis of variance (ANOVA) (McGraw & Wong, 1996). We calculated $r_{wg(j)}$ values using the correction factor for central tendency since the majority of ratings on the LVI were between -2 and $+2$ on the -4 to $+4$ scale (see LeBreton & Senter, 2008). We calculated ICC(1) to estimate the reliability of an individual rater and ICC(k) to estimate the reliability of the average rating across k raters (where k equaled the median number of raters per source—two for superiors, five for peers, five for subordinates, and 12 for the aggregate rating across all three sources). As the results in Table 4 show, there was a sufficient level of rating similarity within the superior, peer, and subordinate sources to justify aggregation, and an acceptable level of similarity in ratings across all three sources as reflected in how the average $r_{wg(j)}$ values exceeded the recommended .90 level and the ICC(k) values exceeded the recommended .70 level (LeBreton & Senter, 2008) for each of the four LVI scales.

Descriptive statistics for the four LVI scale scores based on the average of superior, peer, and subordinate ratings, and used in all subsequent analyses, were Forceful $M = -.05$, $SD = .48$, Enabling $M = -.34$, $SD = .41$, Strategic $M = -.36$, $SD = .30$, and Operational $M = -.16$, $SD = .25$. Table 5 presents the correlations between all study variables: participant demographics, the seven HPI personality scales, and the four LVI leader behavior scales.

Results

The data analysis proceeded in two stages. First, we tested the predictions about which personality dimensions would be related to which leader behaviors. Second, based on the first stage, we determined the point on each personality continuum where leader behavior changed from optimal to excessive and counterproductive.

Personality and Leader Behavior Predictions

We conducted a multivariate multiple regression analysis to test the predicted relationships between the personality scales and the leader behaviors. We used this analytic strategy because it can

Table 4
Inter-Rater Reliability and Inter-Rater Agreement on Leader Behavior Scales

	Superiors			Peers			Subordinates			Aggregated across sources		
	ICC(1)	ICC(k)	$r_{WG(j)}$	ICC(1)	ICC(k)	$r_{WG(j)}$	ICC(1)	ICC(k)	$r_{WG(j)}$	ICC(1)	ICC(k)	$r_{WG(j)}$
Forceful	.40	.57	.93	.44	.80	.90	.36	.74	.89	.23	.79	.92
Enabling	.28	.43	.97	.47	.81	.95	.26	.64	.94	.21	.76	.96
Strategic	.39	.56	.98	.37	.75	.96	.24	.61	.95	.19	.74	.97
Operational	.29	.44	.97	.24	.61	.93	.17	.50	.93	.19	.74	.95

Note. ICC(k) was based on k = 2 for superior ratings, k = 5 for peer ratings, k = 5 for subordinate ratings, and k = 12 for ratings aggregated across sources. $r_{WG(j)}$ values represent the average $r_{WG(j)}$ statistic computed across all focal managers (N = 126 for peer and subordinates, and N = 66 for superiors because only 66 focal managers were rated by more than one superior).

Table 5
Correlations Between Study Variables

	Correlations															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Sex*	—															
2. Age	−.14	—														
3. Management experience	−.29	.59	—													
4. Job tenure	−.03	−.01	.14	—												
5. Organizational level	−.27	.14	.15	−.08	—											
6. Ambition	−.19	.24	.15	.03	.15	(.83)										
7. Sociability	−.15	−.02	−.04	.03	.00	.51	(.86)									
8. Interpersonal sensitivity	−.05	.22	.05	.10	.07	.17	.17	(.70)								
9. Prudence	.17	.06	.01	.07	.03	.11	−.32	.24	(.69)							
10. Adjustment	−.05	.34	.16	−.12	.24	.45	−.02	.30	.40	(.87)						
11. Inquisitive	−.02	.03	−.14	−.21	.04	.20	.46	−.03	−.18	.02	(.84)					
12. Learning approach	.03	.14	.09	.03	.16	.28	.09	.01	.14	.13	.12	(.85)				
13. Forceful	.04	.00	−.02	.18	.04	.27	.16	−.26	−.05	−.16	.07	.22	(.93)			
14. Enabling	−.08	.05	−.01	−.15	.03	−.23	−.06	.32	−.11	.15	−.06	−.27	−.80	(.94)		
15. Strategic	−.09	.00	−.07	.02	.11	.17	.17	−.03	−.19	−.09	.37	.12	.18	.13	(.90)	
16. Operational	−.06	−.13	.00	.07	−.08	−.08	−.30	−.07	.33	.00	−.45	−.06	.05	−.15	−.42	(.80)

Note. $N = 126$ managers and executives. Coefficients along the diagonal in parentheses are reliability estimates: test–retest correlations for the HPI personality scales (reported in Hogan & Hogan, 2007) and Cronbach's α based on coworker ratings in the present sample for the LVI leader behavior scales. All correlations $> .17$ significant at $p < .05$, $> .23$ significant at $p < .01$.

* Sex was coded as Male = 0 and Female = 1.

accommodate multiple predictor (personality) and criterion (leader behavior) variables in one overall analysis which minimizes the Type 1 error rate and allows for follow-up tests to determine the unique contribution of each predictor variable to each criterion variable (Lutz & Eckert, 1994). Another advantage is that multivariate multiple regression considers simultaneously the intercorrelations among all predictor and criterion variables (Haase & Ellis, 1987; Lunneborg & Abbot, 1983), providing the more holistic view of the relationship between personality and leader behavior called for recently by researchers (Zaccaro, 2007).

We included demographic variables as predictors to control for the effects of managers' sex, age, managerial experience, tenure in their current jobs, and current organizational level on their leader behavior ratings.[1] This allowed us to isolate the independent effects of personality on leader behavior, over and above the effects that can be attributed to demographic characteristics. Therefore, in the following analyses the predictors were the participants' set of five demographic variables and seven personality variables and the criteria were coworker ratings of the four dimensions of leader behavior.

Results of the multivariate multiple regression analysis revealed that the overall proportion of variance in the four leader behaviors accounted for by the set of demographic and personality predictor variables was significant: Pillai's Trace = .12, $F(4, 110) = 3.82$, $p < .01$, $\eta^2 = .30$. Therefore, we conducted follow-up hierarchical univariate multiple regression analyses to interpret the relationships between each predictor and criterion variable. The demographic variables were entered in step one and then the seven personality variables were entered in step two to test for incremental validity. The results of the follow-up analyses are reported in Table 6.

Step 1 in each of the hierarchical regressions indicated that the set of demographic variables accounted for a nonsignificant proportion of between 3 and 4% of the variance across the four leader behaviors. The personality variables entered in Step 2 had a significant relationship with the each of the four behaviors, accounting for 26% of the variance in Forceful behavior, 28% in Enabling behavior, 19% in Strategic behavior, and 30% in Operational behavior. These relations between personality and leader behavior are generally large and of sizable practical importance according to Cohen's (1988) guidelines for interpreting effect sizes in multiple regression (2% = small, 13% = medium, and 26% = large).

In terms of the 11 personality scale-leader behavior relationships we expected to find, 10 were significant. (The relationship between Adjustment and Operational leadership was nonsignificant). Of the 17 relationships we did not expect, one was significant. (Prudence was negatively related to Enabling leadership). Thus, the overall hit-rate was 26 out of 28 predictions, or 93%, which provides empirical support for the conceptual relations between the HPI personality dimensions and the four LVI leader behaviors.

In terms of the substantive results, the regression analyses indicated that Forceful leadership was positively related to Ambition and negatively related to both Interpersonal Sensitivity and Adjustment. The opposite was observed for Enabling leadership, which was negatively related to Ambition but positively related to both Interpersonal Sensitivity and Adjustment. Although we did not predict it, Enabling was also negatively related to Prudence. Strategic leadership was related positively to Inquisitive and negatively to Prudence, whereas Operational was related negatively to Inquisitive and positively to Prudence.

Overdoing It Predictions

We analyzed the level of the HPI scales corresponding to the optimal amount vs. too much of their associated leader behaviors. For each HPI scale-LVI behavior relationship that was both predicted and supported empirically by a significant effect in the previous analysis, we conducted a regression relating the two variables. Next, we computed the regression equations for values on the LVI behavior equal to zero, the point corresponding to what raters defined as the right amount of the

[1] We thank an anonymous reviewer for recommending the inclusion of demographic variables in our analyses.

Table 6
Hierarchical Multiple Regression Results

	Leader behavior															
	Forceful				Enabling				Strategic				Operational			
	β	*SE*	*t*	*p*	β	*SE*	*t*	*p*	β	*SE*	*t*	*p*	β	*SE*	*t*	*p*
Step 1: Demographics																
Sex*	.046	.112	.477	.634	−.092	.096	−.955	.341	−.103	.070	−1.064	.290	−.084	.058	−.870	.386
Age	.044	.008	.395	.694	.062	.007	.553	.581	.065	.005	.581	.563	−.181	.004	−1.620	.108
Management experience	−.070	.008	−.603	.548	−.049	.007	−.425	.672	−.158	.005	−1.360	.176	.090	.004	.774	.440
Job tenure	**.197**	**.013**	**2.159**	**.033**	−.151	.012	−1.649	.102	.050	.008	.547	.586	.043	.007	.468	.641
Organizational level	.067	.026	.716	.475	−.013	.022	−.139	.889	.098	.016	1.035	.303	−.082	.013	−.869	.387
R^2	= .04, $F(5, 120) = 1.03$, $p = .404$				= .04, $F(5, 120) = .83$, $p = .527$				= .03, $F(5, 120) = .80$, $p = .550$				= .04, $F(5, 120) = .94$, $p = .459$			
Step 2: Personality																
Ambition	**.364**	**.002**	**3.155**	**.002**	**−.326**	**.002**	**−2.858**	**.005**	.170	.001	1.629	.106	.051	.001	.457	.648
Sociability	.089	.002	.745	.458	.008	.002	.068	.946	−.226	.001	−1.801	.074	−.043	.001	−.371	.711
Interpersonal sensitivity	**−.312**	**.001**	**−3.470**	**.001**	**.382**	**.001**	**4.289**	**.000**	.043	.001	.451	.653	−.118	.001	−1.347	.181
Prudence	.079	.002	.793	.429	**−.212**	**.001**	**−2.162**	**.033**	**−.262**	**.001**	**−2.152**	**.034**	**.350**	**.001**	**3.616**	**.000**
Adjustment	**−.299**	**.002**	**−2.805**	**.006**	**.208**	**.002**	**1.949**	**.047**	−.169	.001	−1.504	.135	−.080	.001	−.766	.445
Inquisitive	−.032	.002	−.343	.733	−.043	.001	−.465	.643	**.390**	**.001**	**3.928**	**.000**	**−.386**	**.001**	**−4.199**	**.000**
Learning approach	.113	.002	1.330	.186	−.160	.001	−1.823	.059	.054	.001	.607	.545	−.031	.001	−.374	.709
ΔR^2	= .26, $F(7, 113) = 6.07$, $p < .001$				= .28, $F(7, 113) = 6.71$, $p < .001$				= .19, $F(7, 113) = 3.98$, $p < .001$				= .30, $F(7, 113) = 7.26$, $p < .001$			
Full model R^2	= .30, $F(12, 113) = 4.09$, $p < .001$				= .32, $F(12, 113) = 4.38$, $p < .001$				= .22, $F(12, 113) = 2.72$, $p < .001$				= .34, $F(12, 113) = 4.77$, $p < .001$			

Note. $N = 126$ managers and executives. β is the standardized regression coefficient, *SE* is the Standard Error, and *t* is the value from the *t*-test of significance. Coefficients in bold are significant ($p < .05$).
* Sex was coded as Male = 0 and Female = 1.

behavior. We also computed the regression equations for values equal to 2 *SD*s above this value on the LVI scale to represent a significant degree of overdoing it. The resulting values for the HPI scales from these equations are (1) the personality scale score associated with the optimal amount of the given leader behavior and (2) the personality scale score associated with doing too much of the leader behavior. These critical HPI scale values for each LVI behavior are presented in Table 7, and the regression equations representing these relationships are depicted in Figure 2.

The results supported the prediction that overdoing leader behavior would be associated with both high and low personality scores. However, there was an important asymmetry between the level of high scores associated with too much behavior compared to the level of low scores associated with too much behavior. For high scores, our results were similar to those reported by Ames and Flynn (2007) and Le et al. (2010) who found that personality scores 1 *SD* above the mean, about the 84th percentile, were associated with decreased effectiveness. The point on the HPI personality continua associated with doing significantly too much of the behavior was at a similar level, around the 80th percentile, on average, for the personality dimensions that were positively related to corresponding behaviors (e.g., Ambition and Forceful, Interpersonal Sensitivity and Enabling, Inquisitive and Strategic, and Prudence and Operational leadership).

On the other hand, low scores associated with too much leader behavior were less extreme. In the cases where the personality-behavior relationships were negative, personality scores around the 34th percentile, on average, were associated with overdoing the inversely related behavior (e.g., Prudence and Strategic leadership, Inquisitive and Operational leadership). These values are far less than 1 *SD* below the mean (the value that corresponds to the 16th percentile). It appears that the threshold for negatively related personality traits to be associated with overdoing leader behaviors is more sensitive than the threshold for positively related traits.

Discussion

This study helped to clarify the role of personality in leadership, provides some unique findings that contribute to the literature and suggest directions for future research, and offers practical implications for the selection and development of managers.

Table 7
HPI Personality Scale Percentile Scores Associated With "The Right Amount" and "Too Much" of LVI Leader Behaviors

	Leader behavior							
	Forceful		Enabling		Strategic		Operational	
Personality dimension	0, the right amount	2 *SD* too much	0, the right amount	2 *SD* too much	0, the right amount	2 *SD* too much	0, the right amount	2 *SD* too much
Ambition	67	(83)	60	(44)				
Sociability								
Interpersonal sensitivity	46	(32)	56	(81)				
Prudence					39	(28)	51	(70)
Adjustment	50	(41)	53	(58)				
Inquisitive					67	(87)	48	(24)
Learning approach								

Note. $N = 126$ managers and executives. Values are the HPI scale percentile scores associated with scores of 0, the right amount and 2 *SD* (in parentheses) in the too much direction above 0, the right amount on the LVI leader behavior scales.

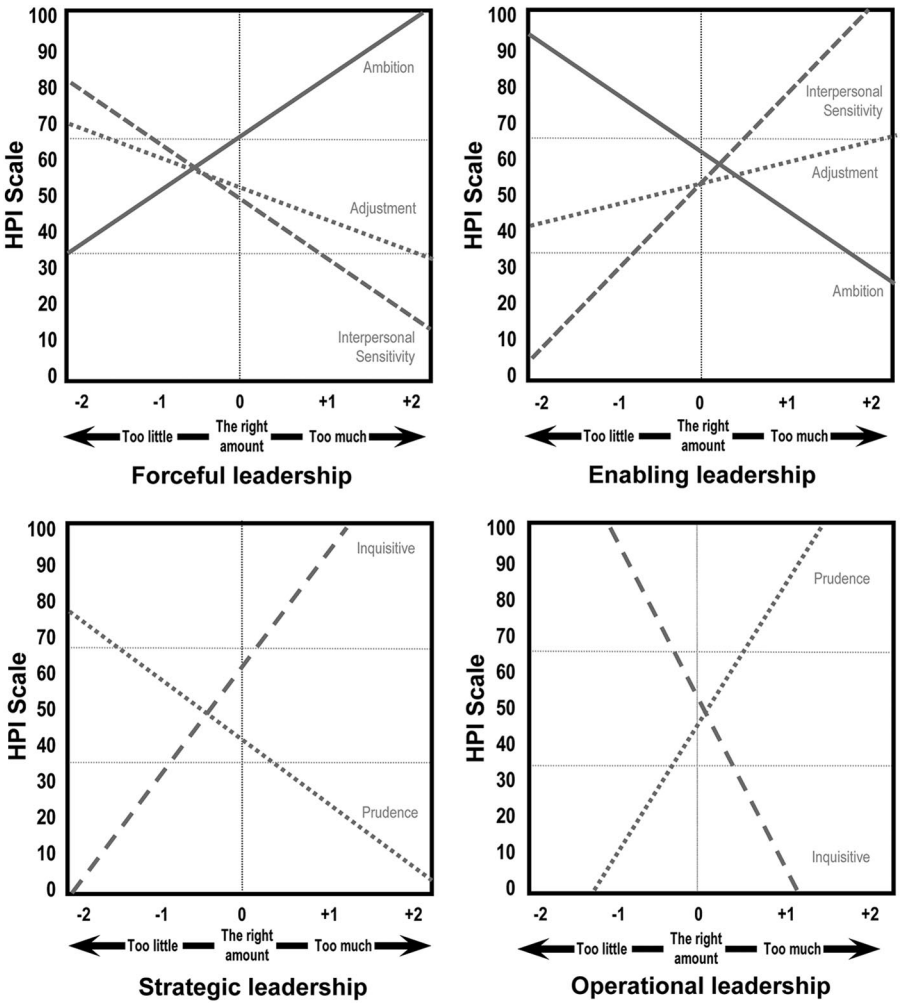

Figure 2. Functions relating personality dimensions to leader behaviors.

Personality and Leader Behavior

The results contribute to our understanding of personality and leadership in four ways. First, they emphasize how personality is not just related to leadership perceptions, but also to the way leadership is exercised. Second, the results replicate prior findings about the dimensions of the FFM associated with different categories of leader behavior and also elaborate the role of some dimensions, particularly FFM Extraversion and Emotional Stability. Third, the finding that complementary behaviors were related to opposing personality profiles raises some provocative implications that are not part of mainstream theory. Finally, our findings shed light on the role personality plays in how strengths can become weaknesses.

Personality, behavior, and effectiveness. Prior meta-analytic research showed that personality accounts for 28% of the variance in leadership emergence and 15% of the variance in leadership effectiveness (Judge et al., 2002). Leadership emergence is perceptual in nature and concerns being seen as leader-like or chosen for a leadership role; leadership effectiveness is results-oriented and concerns influencing group performance (Kaiser et al., 2008; Lord et al., 1986).

Thus, prior research could be interpreted as indicating personality plays a stronger role in leadership perceptions than leadership results.

However, in the present research personality accounted for an average of 26% of the variance across the four leader behaviors. This helps to clarify the link between leader personality and results insofar as the effect of personality on the distal outcome of results is mediated by its proximal effect on behavior (De Rue at al., 2011; Hogan & Kaiser, 2005). In other words, the role of personality in leadership is not just a matter of perception; personality has a large effect on leader behavior and how personality is expressed in behavior has an effect on employee and team performance. We recommend that future studies consider more integrative research designs that model the personality→behavior→results linkages to better understand the process of effective leadership.

The FFM and leader behavior. We found that personality scales classified in each dimension of the FFM were associated with one form or another of leader behavior. Moreover, although the bivariate correlation between any one personality scale and a relevant leader behavior was in the small to moderate range, when taken together as a collection of scales the multivariate effect was generally large. This supports the utility of the FFM as an organizing framework in leadership research: a broad range of personality dimensions is needed to account for a sizable proportion of variation in a wide array of leader behaviors.

Like the meta-analysis by DeRue et al. (2011), we found that scales reflecting FFM Extraversion and Agreeableness were those most related to interpersonal leader behaviors. However, we found that the Ambition component of Extraversion accounted for this relationship. This extends prior findings that Extraversion is the FFM dimension most strongly and consistently related to leadership effectiveness (Judge et al., 2002) by implying that the Ambition facet drives this effect and that the Sociability facet contributes little (see also Hogan & Holland, 2003). Future research should separate these facets because combining Sociability may dilute the validity of Ambition and attenuate relationships if only the broad Extraversion factor is studied.

DeRue et al.'s (2011) meta-analysis classified FFM Emotional Stability as a task-oriented category of traits and did not examine its relationship to interpersonal-oriented leader behavior. However, our measure of FFM Emotional Stability, Adjustment, was not related to the task-oriented behavior, Operational leadership, but was related to the interpersonal-oriented behaviors, Forceful and Enabling leadership. Similar to social psychological research on interpersonal behavior (Côté & Moskowitz, 1998; Trapnell & Wiggins, 1990), our results indicate effects for FFM Emotional Stability traits on relational aspects of leadership. Future research should consider its role in both interpersonal- and task-oriented leader behavior.

Although we did not predict it, Prudence (reflecting FFM Conscientiousness) was negatively related to Enabling interpersonal leader behavior. This seems sensible in that Prudent manager are detail-oriented and at the extreme end are prone to micromanagement (Hogan, Hogan, & Warrenfeltz, 2007). If future research replicates the inverse relationship between empowering forms of leader behavior and measures of FFM Conscientiousness, it suggests new research directions to consider how task-oriented traits may affect interpersonal leader behavior.

Operational leadership was associated with higher Prudence scores, reflecting FFM Conscientiousness, and lower scores for the Inquisitive facet of FFM Intellect-Openness. The positive relationship between task-oriented leader behavior and Conscientiousness traits is consistent with prior research (DeRue et al., 2011), whereas the negative relationship with facets of Intellect-Openness has not been widely recognized. One possible reason for this oversight may be a tendency to focus on the positive qualities that correspond to the high end of personality dimensions. However, high and low scores of all personality continua have advantages and disadvantages (Nettle, 2006), and the pragmatic aspects of low Inquisitive facilitate a leader's task orientation and tactical judgment (Judge et al., 2009).

Strategic leadership was positively related to the Inquisitive facet of FFM Intellect-Openness and negatively related to the FFM Conscientiousness trait, Prudence. The link between change-oriented behavior and Openness traits is well established, but relationships with Conscientiousness traits have not often been noted. However, the flexible and nonconforming aspects of low Conscientiousness promote a favorable orientation to change (Judge et al., 2009). Interestingly, personality had a large

effect on three of the behaviors we studied, but only a medium effect on Strategic leadership (R^2 = .19 compared to .26–.30 for the other three). This is consistent with new research showing that strategic competence is more influenced by work experience and cognitive ability and less influenced by personality than other leader behaviors (Dragoni, Oh, Vankatwyk, & Tesluk, 2011). Perhaps part of the reason strategic leadership seems rare and hard to develop is because it is more mental and knowledge-based, and less motivational, in nature.

Opposing profiles. Distinct personality correlates were associated with each of the four leader behaviors. These divergent patterns of relationships are striking—complementary behaviors were associated with opposite personality profiles. To quantify this observation, the correlation between the beta-weights in Table 6 across the seven personality scales for predicting Forceful compared to Enabling leadership was $r = -.93$; the correlation between the beta-weights predicting Strategic compared to Operational leadership was $r = -.70$. In other words, the pattern of relationships between personality dimensions and behavior was diametrically opposed for the two pairs of complementary leader behaviors. These findings are not part of mainstream theory. Although leader behaviors are often formulated in contrasting pairs (e.g., Autocratic vs. Democratic, Initiation vs. Consideration, Transformational vs. Transactional), theorists rarely consider the possibility that the characteristics conducive to one also inhibit the other.[2]

This finding suggests that an optimal personality profile associated with the appropriate use of a broad range of leader behaviors may be rare. Relatedly, normative data on the LVI shows that fewer than 10% of managers and executives are truly versatile as indicated by doing the right amount on each of the Forceful, Enabling, Strategic, and Operational behaviors (Kaiser et al., 2010). Eichinger, Dai, and Tang (2009) report a similarly low base rate for managers with a well-rounded profile of competency strengths. The present results help explain why versatile leaders are the exception, not the norm—complementary behaviors are associated with different personalities. This explanation has provocative implications for the interpretation of personality scores and the selection and development of manager, which we discuss below.

The rarity of versatile managers with a broad repertoire of leader behaviors points to the importance of shared or distributed leadership, the idea that different managers can assume different leadership responsibilities (Pearce & Conger, 2003). There is evidence that teams are more effective when the key leadership functions are fulfilled even if different leaders perform different functions (Hiller, Day, & Vance, 2006). However, difficulty arises in how to maintain the cohesion of a group of sharply distinct personalities. The solution typically suggested is to staff with people who have common values but complementary personalities and perspectives. However, values and personality covary (Olver & Mooradian, 2003), making such a strategy harder to achieve than this seemingly simple and straightforward advice might suggest.

Strengths become weaknesses. Personality was related to the excessive use of all four leader behaviors. This extends prior research linking high scores on FFM Conscientiousness, FFM Emotional Stability, and assertiveness to less effective performance by showing a similar relationship for high scores on the other three factors of the FFM. As in other recent studies, we found that excessive and counterproductive behavior was associated with personality scores about 1 *SD* above the mean. Moreover, our findings extend prior research by suggesting that the curvilinear relationship between personality and performance is moderated by excessive behavior—for example, highly assertive managers degrade the morale of their employees (Ames & Flynn, 2007) because they are too Forceful: overly controlling, dictatorial, and aggressive.

Each FFM dimension was associated with overdoing some leader behavior. This highlights a robust role for personality in taking otherwise desirable behaviors and skills to counterproductive extremes (Judge et al., 2009): when an ambitious but poorly adjusted manager who lacks sensitivity is seen as bossy and abrasive; when a detail-oriented tactician gets bogged down; when a congenial

[2] We acknowledge that some exceptions do exist. For instance, Fielder (1967) proposed that task-oriented and relationship-oriented leaders are two different types of people and Zaleznik (1977) proposed that leaders and managers are as well. Nevertheless, these ideas have not been developed as part of mainstream leadership theory, perhaps because of the limited study of personality and behaviors at the same time.

and accommodating manager abdicates authority; when a creative but uninhibited executive commits strategic overreach. The role of personality in strengths overused is further clarified by considering that high scores were associated with both too much of some leader behaviors and too little of complementary behaviors. For instance, a high score on Ambition was associated with too much Forceful behavior *and* also too little Enabling behavior. There are two related ways in which strengths become weaknesses (Kaplan & Kaiser, 2009): first by promoting too much of one behavior and second by inhibiting the use of an opposing but complementary behavior, and personality was associated with both of these dynamics.

Finally, our results show that low personality scores also can be associated with strengths overused, and that the threshold for these effects may be particularly sensitive. For instance, Ambition scores at the 83rd percentile were associated with too much Forceful leadership whereas scores at the 44th percentile were associated with too much Enabling leadership. On average, low personality scores did not need to deviate as much from the mean to be associated with excessive behavior compared to high personality scores. This is a novel finding and one we did not anticipate. Further theory and research is needed to better understand the asymmetry in the points at which positively related traits are associated with too much of a given behavior compared to negatively related traits.

Practical Implications

As depicted in Figure 2, both high and low personality scores were associated with suboptimal performance in terms of doing too much of some leader behaviors and too little of others. Scores in the moderate range generally were associated with optimal levels of leader behavior. Extreme personality scores should be interpreted in terms of their associated "strengths" and desirable qualities, and in terms of tradeoffs in the potential to overdo those strengths as well as neglect opposing but complementary behaviors. This interpretation of personality assessment results is relevant in both the selection and development of leaders.

Selection. Strong empirical relationships between personality and leader behavior highlight the relevance of personality screening in managerial and executive selection. The process should begin with an organizational and position analysis to define the job and context. Next, contingency models of leadership can help identify the ideal leadership style needed. Then personality assessment can be used to infer the leadership styles of different candidates.

Two caveats to this straightforward matching process are noteworthy. First, top-down selection procedures that prefer high-scoring candidates on valid personality scales may be inadvisable. As our results show, higher scoring candidates are prone to overdo the relevant leader behaviors. Thus, hiring managers should prefer candidates with slight elevations over those with extreme elevations. Second, hiring managers should carefully consider the costs of focusing on a particular style of leadership, as our results show that doing so is likely to forsake an opposing but complementary style. Many executive derailments can be attributed to reasons that are the opposite of why they were selected in the first place. For example, Carly Fiorina was brought in to lead Hewlett-Packard for her big personality and comfort with large-scale change, but was terminated for neglecting execution as performance dropped and Hewlett-Packard's stock lost 60% of its value over the 6 years she was CEO (Anders, 2005).

Development. Executive coaching and other methods of self-awareness-based leadership training and development can use the statistical associations between personality and behavior to guide their interventions. Combining both personality assessment and coworker feedback about behavior can provide deeper insight into how one is perceived and why. The two sources of data provide convergent views of developmental issues that can be used in different ways. For example, a manager who received feedback about being too forceful claimed it was part of his driven personality and that he was unwilling to pander to the feedback and be untrue to himself. We changed the focus to behavior to clarify if he really meant that it would be disingenuous to show respect to other people by listening instead of interrupting, and he readily saw the folly in his attempt to justify the troublesome behavior.

Hogan and Warrenfeltz (2003) distinguish two perspectives on development that are relevant for coaching managers. The internal perspective comes from a person's self-evaluation of his or her skills and behavior. The external perspective comes from others' evaluations. In some cases, a manager's self-evaluation will be shockingly out of touch with the observers' views. Because other peoples' evaluations define a person's success, development depends on aligning the inner and outer perspectives. This alignment is how we define self-awareness. Prerequisites include the desire to improve, self-control to perform, moderate (not high or low) self-confidence, insight about other people, and rationality (Hogan & Warrenfeltz, 2003). During this process, personality does not change; however, with the development of self-awareness, behavior can change. Behavior change, not personality change, is the primary goal of development (Peterson, 2010).

Nonetheless, the question of the degree to which managers can change behavior associated with their personality is legitimate. Personality seems relatively stable in adulthood (Costa & McCrae, 2002), although some degree of normative change has also been observed (Roberts, 2006). Moreover, despite strong relationships between personality and leader behavior, their statistical association indicates that other factors also contribute to behavior. Perhaps the key to the apparent paradox of changing personality-linked behavior lies in the distinction between automatic vs. controlled self-regulation (Baumeister et al., 2000; Shiffrin & Schneider, 1977). Personality represents inclinations to think, feel, and act in particular ways, which are default tendencies that can be overridden by deliberate choices. Although certain behaviors may come more naturally to some managers, this does not preclude them from learning to be more aware and mindful to consider behaviors and courses of action that better meet situational demands. For instance, a personality assessment may provide a high Ambition, low Interpersonal Sensitivity manager with insight about tendencies to rely on a Forceful style while neglecting an Enabling style. Coaching around contingency models that explain when her natural Forceful approach is best suited versus when a more Enabling approach is called for can help this manager recognize when she needs to go against the grain and adapt her style. In fact, this higher-order ability to adapt by reading and responding to changing circumstances may be the key capability underlying effective leadership (Kaiser & Overfield, 2010; Zaccaro, 2007).

Limitations

The generalizability of our research findings is limited in three ways. First, our sample was comprised mostly of white men in upper-level jobs in Western for-profit businesses. It remains to be seen how the results will generalize to other samples, organization types, and cultures. It is also possible that sex and culture influence the level of personality factors associated with ratings of too much of particular behaviors. For instance, because of stereotypes and sex role expectations the same level of Ambition may be seen as corresponding to too much Forceful interpersonal behavior for female managers but the right amount for male managers (Heilman, 2001). Perhaps performance-oriented cultures have a higher tolerance for Ambitious personalities whereas humanistic cultures may have a lower tolerance, which may influence the range of scores associated with the right amount of related leader behaviors.

The second limitation concerns inferences that can be drawn from our data. Because of our research design, we are unable to make causal connections between personality and leader behavior. Therefore, our results are more properly interpreted as indicating that personality is related to leader behavior. Future research is needed to determine the extent to which personality causes leader behavior versus leadership causes changes in personality.[3]

The third limitation is that our design was variable-centered rather than pattern- or person-centered (Foti & Hauenstein, 2007). The results are informative about the personality variables associated with various leader behaviors. However, each manager's pattern of scores differs and it is unclear how the various personality profile configurations relate to leader behavior. For instance,

[3] We thank an anonymous reviewer for suggesting that we caution readers about drawing causal inferences from our results and point out that is it plausible that leadership could cause changes in personality.

our results indicate that complementary behaviors are associated with opposing personality profiles but tell us little about the few managers who manage to balance opposing but complementary behaviors. A person-centered analysis is needed to better understand the personalities of these more versatile leaders.

Conclusion

After a half-century of neglect, there is renewed interest in research on personality and leadership. Despite of the earlier skepticism, empirical findings guided by clearer theory and stronger methodology have demonstrated an integral role for personality in leadership. Initial meta-analytic research prompting this resurgence focused on the role of personality in leadership perceptions (Lord et al., 1986), but recent meta-analyses have demonstrated that personality also plays a vital role in leader behavior (e.g., DeRue at al., 2011) as well as leadership effectiveness (Judge et al., 2002).

The present research continues this trend by documenting patterns of theoretically coherent relationships between a broad range of personality dimensions and four distinct leader behaviors, with a large average effect size of $R^2 = .26$. We also showed how complementary leader behaviors are associated with contrasting personality profiles. Finally, we found links between high- and low standing on traits reflecting each dimension of the FFM and doing too much of at least one leader behavior, which establishes a firm connection between personality and strengths becoming weaknesses through overuse. These findings support the claim that, for better or worse, "who we are determines how we lead" (Hogan & Kaiser, 2005, p. 170).

References

Ames, D. R., & Flynn, F. J. (2007). What breaks a leader? The curvilinear relation between assertiveness and leadership. *Journal of Personality and Social Psychology, 92,* 307–324. doi:10.1037/0022-3514.92.2.307

Anders, G. (2005). H-P's board ousts Fiorina as CEO. *Wall Street Journal, Feb. 10, A, 1,* A8.

Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44,* 1–26. doi:10.1111/j.1744-6570.1991.tb00688.x

Barrick, M. R., & Mount, M. K. (1993). Autonomy as a moderator of the relationships between the Big Five personality dimensions and job performance. *Journal of Applied Psychology, 78,* 111–118. doi:10.1037/0021-9010.78.1.111

Bass, B. M. (1985). *Leadership and performance beyond expectation.* New York, NY: Free Press.

Baumeister, R. F., Muraven, M., & Tice, D. M. (2000). Ego depletion: A resource model of volition, self-regulation, and controlled processing. *Social Cognition, 18,* 130–150. doi:10.1521/soco.2000.18.2.130

Bennis, W. (2007). The challenges of leadership in the modern world. *American Psychologist, 62,* 2–5. doi:10.1037/0003-066X.62.1.2

Benson, M. J., & Campbell, J. P. (2007). To be, or not to be, linear: An expanded representation of personality and its relationship to leadership performance. *International Journal of Selection and Assessment, 15,* 232–249. doi:10.1111/j.1468-2389.2007.00384.x

Bentz, V. J. (1985). Research findings from personality assessment of executives. In J. H. Bernardin & D. A. Bownas (Eds.), *Personality assessment in organizations* (pp. 82–144). New York, NY: Praeger.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Costa, P. T., Jr., & McCrae, R. R. (2002). Looking backward: Changes in the mean levels of personality traits from 80 to 12. In D. Cervone & W. Mischel (Eds.), *Advances in personality science* (pp. 219–237). New York, NY: Guilford Press.

Côté, S., & Moskowitz, D. S. (1998). On the dynamic covariation between interpersonal behavior and affect: Prediction from neuroticism, extraversion, and agreeableness. *Journal of Personality and Social Psychology, 75,* 1032–1046. doi:10.1037/0022-3514.75.4.1032

DeRue, D. S., Nahrgang, J. D., Wellman, N., & Humphrey, S. E. (2011). Trait and behavioral theories of leadership: A meta-analytic test of their relative validity. *Personnel Psychology, 64,* 7–52. doi:10.1111/j.1744-6570.2010.01201.x

Digman, J. M. (1990). Personality structure: Emergence of the five factor model. *Annual Review of Psychology, 41,* 417–440. doi:10.1146/annurev.ps.41.020190.002221

Dragoni, L., OH, I.-S., Vankatwyk, P., & Tesluk, P. E. (2011). Developing executive leaders: The relative contribution of cognitive ability, personality, and the accumulation of work experience in predicting strategic thinking competency. *Personnel Psychology, 64,* 829–864. doi:10.1111/j.1744-6570.2011.01229.x

Dudley, N. M., Orvis, K. A., Lebiecki, J. E., & Cortina, J. M. (2006). A meta-analytic investigation of conscientiousness in the prediction of job performance: Examining the intercorrelations and the incremental validity of narrow traits. *Journal of Applied Psychology, 91,* 40–57. doi:10.1037/0021-9010.91.1.40

Eichinger, R. W., Dai, G., & Tang, K. Y. (2010). It depends upon what you mean by a strength. In R. B. Kaiser (Ed.), *The perils of accentuating the positives* (pp. 14–25). Tulsa, OK: Hogan Press.

Fiedler, F. E. (1967). *A theory of leadership effectiveness.* New York, NY: McGraw-Hill.

Foti, R. J., & Hauenstein, N. M. A. (2007). Pattern and variable approaches in leadership emergence and effectiveness. *Journal of Applied Psychology, 92,* 347–355. doi:10.1037/0021-9010.92.2.347

Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist, 48,* 26–34. doi:10.1037/0003-066X.48.1.26

Haase, R. F., & Ellis, M. V. (1987). Multivariate analyses of variance. *Journal of Counseling Psychology, 34,* 404–413. doi:10.1037/0022-0167.34.4.404

Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues, 57,* 657–674. doi:10.1111/0022-4537.00234

Hiller, N. J., Day, D. V., & Vance, R. J. (2006). Collective enactment of leadership roles and team effectiveness: A field study. *Leadership Quarterly, 17,* 387–397. doi:10.1016/j.leaqua.2006.04.004

Hogan, J., Barrett, P., & Hogan, R. (2007). Personality measurement, faking, and employment selection. *Journal of Applied Psychology, 92,* 1270–1285. doi:10.1037/0021-9010.92.5.1270

Hogan, J., Hogan, R., & Kaiser, R. B. (2010). Management derailment. In S. Zedeck (Ed.), *American Psychological Association handbook of industrial and organizational psychology* (Vol. 3, pp. 555–575). Washington, DC: American Psychological Association.

Hogan, J., & Holland, B. (2003). Using theory to evaluate personality and job performance relations: A socioanalytic perspective. *Journal of Applied Psychology, 88,* 100–112. doi:10.1037/0021-9010.88.1.100

Hogan, R., Curphy, G. J., & Hogan, J. (1994). What we know about leadership: Effectiveness and personality. *American Psychologist, 49,* 493–504. doi:10.1037/0003-066X.49.6.493

Hogan, R., Hogan, J., & Warrenfeltz, R. (2007). *The Hogan guide.* Tulsa, OK: Hogan Press.

Hogan, R., & Hogan, J. (2007). *Hogan Personality Inventory manual.* Tulsa, OK: Hogan Press.

Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Journal of General Psychology, 9,* 169–180. doi:10.1037/1089-2680.9.2.169

Hogan, R., & Kaiser, R. B. (2010). Personality. In J. C. Scott & D. H. Reynolds (Eds.), *Handbook of workplace assessment* (pp. 81–108). San Francisco, CA: Jossey-Bass.

Hogan, R., & Warrenfeltz, R. (2003). Educating the modern manager. *Academy of Management Learning and Education, 1,* 1–13. doi:10.5465/AMLE.2003.9324043

House, R. J., & Aditya, R. N. (1997). The social scientific study of leadership: Quo vadis? *Journal of Management, 23,* 409–473. doi:10.1177/014920639702300306

Hughes, R. L., Ginnett, R. C., & Curphy, G. J. (1996). *Leadership.* Boston, MA: Irwin McGraw-Hill.

Hurtz, G. M., & Donovan, J. J. (2000). Personality and job performance: The Big Five revisited. *Journal of Applied Psychology, 85,* 869–879. doi:10.1037/0021-9010.85.6.869

James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology, 69,* 85–98. doi:10.1037/0021-9010.69.1.85

John, O. P. (1990). The "Big-Five" factor taxonomy: Dimensions of personality in the natural language and in questionnaires. In L. A. Pervin (Ed.), *Handbook of personality and research* (pp. 66–100). New York, NY: Guilford Press.

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,* 765–780. doi:10.1037/0021-9010.87.4.765

Judge, T. A., Ilies, R., & Colbert, A. E. (2004). Intelligence and leadership: A quantitative review and test of theoretical propositions. *Journal of Applied Psychology, 89,* 542–552. doi:10.1037/0021-9010.89.3.542

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. *Leadership Quarterly, 20,* 855–875. doi:10.1016/j.leaqua.2009.09.004

Kaiser, R. B., Hogan, R., & Craig, S. B. (2008). Leadership and the fate of organizations. *American Psychologist, 63,* 96–110. doi:10.1037/0003-066X.63.2.96

Kaiser, R. B., & Hogan, R. (2007). The dark side of discretion. In R. Hooijberg, J. Hunt, J. Antonakis, K. Boal, & N. Lane (Eds.), *Being there even when you are not: Leading through strategy, systems and structures* (Vol. 4, pp. 177–197). London: Elsevier Science.

Kaiser, R. B., & Kaplan, R. E. (2005). Overlooking overkill? Beyond the 1-to-5 rating scale. *Human Resources Planning, 28,* 7–11.

Kaiser, R. B., Lindberg, J. T., & Craig, S. B. (2007). Assessing the flexibility of managers: A comparison of methods. *International Journal of Selection and Assessment, 16,* 40–55. doi:10.1111/j.1468–2389.2007.00366.x

Kaiser, R. B., Overfield, D. V., & Kaplan, R. E. (2010). *Leadership Versatility Index version 3.0 Facilitator's Guide.* Greensboro, NC: Kaplan DeVries Inc.

Kaiser, R. B., & Overfield, D. V. (2010). Assessing flexible leadership as a mastery of opposites. *Consulting Psychology Journal: Practice and Research, 62,* 105–118. doi:10.1037/a0019987

Kaiser, R. B., & Overfield, D. V. (2011). Strengths, strengths overused, and lopsided leadership. *Consulting Psychology Journal: Practice and Research, 63,* 89–109. doi:10.1037/a0024470

Kaplan, R. E., & Kaiser, R. B. (2003). Rethinking a classic distinction in leadership: Implications for the assessment and development of executives. *Consulting Psychology Journal: Research and Practice, 55,* 15–25. doi:10.1037/1061-4087.55.1.15

Kaplan, R. E., & Kaiser, R. B. (2006). *The versatile leader: Make the most of your strengths—Without overdoing it.* San Francisco, CA: Pfeiffer.

Kaplan, R. E., & Kaiser, R. B. (2009). Stop overdoing your strengths. *Harvard Business Review, 87,* 100–103.

Kaplan, R. E. (1990). *Beyond ambition.* San Francisco, CA: Jossey-Bass.

Le, H., OH, I.-S., Robbins, S. B., Ilies, R., Holland, E., & Westrick, P. (2010). Too much of a good thing? The curvilinear relationships between personality traits and job performance. *Journal of Applied Psychology, 95,* 1–21. doi:10.1037/a0018757

LeBreton, J. M., Burgess, J. R. D., Kaiser, R. B., Atchley, E. K. P., & James, L. R. (2003). The restriction of variance hypothesis and interrater reliability and agreement: Are ratings from multiple sources really dissimilar? *Organizational Research Methods, 6,* 80–128. doi:10.1177/1094428102239427

LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods, 11,* 815–852. doi:10.1177/1094428106296642

Levinson, H. (1988). You won't recognize me: Predictions about changes in top management characteristics. *The Academy of Management Executive, 11,* 119–125. doi:10.5465/AME.1988.4275521

Lord, R. G., DeVader, C. L., & Alliger, G. (1986). A meta-analysis of the relation between personality traits and leader perceptions. *Journal of Applied Psychology, 71,* 402–410. doi:10.1037/0021-9010.71.3.402

Lunneborg, C. E., & Abbott, R. D. (1983). *Elementary multivariate analysis for the behavioral sciences.* New York, NY: North-Holland.

Lutz, J. G., & Eckert, T. L. (1994). The relationship between canonical correlation analysis and multivariate multiple regression. *Educational and Psychological Measurement, 54,* 666–675. doi:10.1177/0013164494054003009

Mann, R. D. (1959). A review of the relationship between personality and performance in small groups. *Psychological Bulletin, 56,* 241–270. doi:10.1037/h0044587

McCall, M. W., Jr., Lombardo, M. M., & Morrison, A. M. (1988). *Lessons of experience: How successful executives develop on the job.* New York, NY: Free Press.

McCall, M. W., Jr., & Lombardo, M. M. (1983). *Off the track: Why and how successful executives get derailed.* Greensboro, NC: Center for Creative Leadership.

McCall, M. W., Jr. (2009). Every strength a weakness and other caveats. In R. B. Kaiser (Ed.), The perils of accentuating the positive. Tulsa, OK: Hogan Press.

McCrae, R. R., & Costa, P. T., Jr. (1989). The structure of interpersonal traits: Wiggins's circumplex and the five-factor model. *Journal of Personality and Social Psychology, 56,* 586–595. doi:10.1037/0022-3514.56.4.586

McCrae, R. R., & Costa, P. T., Jr. (1997). Personality trait structure as a human universal. *American Psychologist, 52,* 509–516. doi:10.1037/0003-066X.52.5.509

McCrae, R. R. (1993). Openness to experience as a basic dimension of personality. *Imagination, Cognition and Personality, 13,* 39–55. doi:10.2190/H8H6-QYKR-KEU8-GAQ0

McGraw, K. O., & Wong, S. P. (1996). Forming inferences about some intraclass correlation coefficients. *Psychological Methods, 1,* 30–46. doi:10.1037/1082-989X.1.1.30

Moore, T. (1987). Personality tests are back. *Fortune, 115,* 74–78.

Nettle, D. (2006). The evolution of personality variation in humans and other animals. *American Psychologist, 61,* 622–631. doi:10.1037/0003-066X.61.6.622

Oh, I.-S., & Berry, C. M. (2009). The five-factor model of personality and managerial performance: Validity gains through the use of 360 degree performance ratings. *Journal of Applied Psychology, 94,* 1498–1513. doi:10.1037/a0017221

Olver, J. M., & Mooradian, T. A. (2003). Personality traits and personal values: A conceptual and empirical integration. *Personality and Individual Differences, 35,* 109–125. doi:10.1016/S0191-8869(02)00145-9

Pearce, C. L., & Conger, J. A. (2003). *Shared leadership: Reframing the hows and whys of leadership.* Thousand Oaks, CA: Sage.

Pearce, C. L., Sims, H. P., Jr., Cox, J. F., Ball, G., Schnell, E., Smith, K. A., & Trevino, L. (2003). Transactors, transformers and beyond: A multi-method development of a theoretical typology of leadership. *Journal of Management Development, 22,* 273–307. doi:10.1108/02621710310467587

Peterson, D. B. (2010). Executive coaching: A critical review and recommendations for advancing the practice. In S. Zedeck (Ed.), *American Psychological Association handbook of industrial and organizational psychology* (Vol. 2, pp. 527–566). Washington, DC: American Psychological Association.

Roberts, B. W. (2006). Personality development and organizational behavior. In B. M. Staw (Ed.), *Research on organizational behavior* (pp. 1–41). Elsevier Science/JAI Press.

Salgado, J. F. (1997). The five-factor model of personality and job performance in the European Community. *Journal of Applied Psychology, 82,* 30–43. doi:10.1037/0021-9010.82.1.30

Sashkin, M. (1988). The visionary leader. In J. A. Conger & R. N. Kanungo (Eds.), *Charismatic leadership: The elusive factor in organizational effectiveness* (pp. 122–160). San Francisco, CA: Jossey-Bass.

Schuman, H., & Presser, S. (1981). *Questions and answers in attitude surveys: Experiments in question form, wording, and context.* New York, NY: Academic Press.

Scott, J. C., & Reynolds, D. H. (Eds.). (2010). *Handbook of workplace assessment.* San Francisco, CA: Jossey-Bass.

Shiffrin, R. M., & Schneider, W. (1977). Controlled and automatic human information processing: II. Perceptual learning, automatic attending, and a general theory. *Psychological Review, 84,* 127–190. doi:10.1037/0033-295X.84.2.127

Smith, D. B., & Ellingson, J. E. (2002). Substance versus style: A new look at social desirability in motivating contexts. *Journal of Applied Psychology, 87,* 211–219. doi:10.1037/0021-9010.87.2.211

Staal, M. A. (2008). Test review of the Leadership Versatility Index. In K. F. Geisinger, R. A. Spies, & J. F. Carlson (Eds.), *The eighteenth mental measurements yearbook* [Electronic version]. Lincoln, NE: Buros Institute of Mental Measurements.

Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *Journal of Psychology, 25,* 35–71. doi:10.1080/00223980.1948.9917362

Stogdill, R. M. (1963). *Manual for the Leader Behavior Description Questionnaire, Form XII.* Columbus, OH: Bureau of Business Research, Ohio State University.

Trapnell, P. D., & Wiggins, J. S. (1990). Extension of the interpersonal adjective scales to include the big five dimensions of personality. *Journal of Personality and Social Psychology, 59,* 781–790. doi:10.1037/0022-3514.59.4.781

Vassar, M. (2008). Test review of the Leadership Versatility Index. In K. F. Geisinger, R. A. Spies, & J. F. Carlson (Eds.), *The eighteenth mental measurements yearbook* [Electronic version]. Lincoln, NE: Buros Institute of Mental Measurements.

Vecchio, R. P., & Boatright, K. J. (2002). Preferences for idealized styles of supervision. *Leadership Quarterly, 13,* 327–342. doi:10.1016/S1048-9843(02)00118-2

Wiggins, J. S. (1996). *The five-factor model of personality.* New York, NY: Guilford Press.

Yukl, G. A. (2006). *Leadership in organizations* (6th ed.). Englewood Cliffs, NJ: Prentice Hall.

Zaccaro, S. J. (2001). *The nature of executive leadership: A conceptual and empirical analysis of success.* Washington, DC: American Psychological Association. doi:10.1037/10398-000

Zaccaro, S. J. (2007). Trait-based perspectives of leadership. *American Psychologist, 62,* 6–16. doi:10.1037/0003-066X.62.1.6

Zaleznik, A. (1977). Managers and leaders: Are they different? *Harvard Business Review, 82,* 74–81.

Received October 17, 2011
Latest revision received December 1, 2011
Accepted December 2, 2011 ■