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Five-Factor Model of Personality and Transformational Leadership

Timothy A. Judge and Joyce E. Bono
University of Iowa

This study linked traits from the 5-factor model of personality (the Big 5) to transformational leadership behavior. Neuroticism, Extraversion, Openness to Experience, and Agreeableness were hypothesized to predict transformational leadership. Results based on 14 samples of leaders from over 200 organizations revealed that Extraversion and Agreeableness positively predicted transformational leadership; Openness to Experience was positively correlated with transformational leadership, but its effect disappeared once the influence of the other traits was controlled. Neuroticism and Conscientiousness were unrelated to transformational leadership. Results further indicated that specific facets of the Big 5 traits predicted transformational leadership less well than the general constructs. Finally, transformational leadership behavior predicted a number of outcomes reflecting leader effectiveness, controlling for the effect of transactional leadership.

Given the centrality of leadership to the success or failure of organizations and even societies, there are few more important questions than, "What makes a leader great?" Attempts to answer this question can be traced to the earliest discussions of the concept of leadership. It is only in this century, however (particularly in this half century), that leadership has become an area of serious academic investigation. In the last 20 years, considerable progress has been made in addressing leader effectiveness according to one theoretical perspective, transformational leadership theory (also known as charismatic leadership). The concept of transformational leadership dates to Burns' (1978) Pulitzer-Prize-winning book on leadership. At about the same time, House (1977) and Bass (1985) developed their own theories of leadership that were compatible with and—in Bass' case—inspired by Burns' writing. Although numerous other leadership theories continue to attract the attention of organizational researchers, it is safe to say that transformational leadership theory has garnered most of the attention in recent leadership research.[1]

Burns (1978) distinguished transformational leaders from transactional leaders. In contrast to transformational leaders, who obtain support by inspiring followers to identify with a vision that reaches beyond their own immediate self-interests, transactional leaders obtain cooperation by establishing exchanges with followers and then monitoring the exchange relationship. Although Burns considered transformational and transactional leadership to be polar opposites, Bass' (1985) theory postulated that leaders could be both transformational and transactional (or neither).

According to Bass' (1985) theory, there are four dimensions of transformational leadership. These dimensions initially were derived from interviews in which individuals were asked to describe leaders that caused them to perform beyond expectations. Subsequent questionnaire development and analysis refined these dimensions. According to Bass's theory, the four components of transformational leadership are as follows.

Idealized influence can be defined as serving as a charismatic role model to followers. This dimension, often simply referred to as "charisma," is the most prototypic and often the single most important dimension. *Inspirational motivation* involves articulation of a clear, appealing, and inspiring vision to followers. Although vision is conceptually distinct from charisma, research has found that inspirational motivation is highly correlated with idealized influence; they are often combined in practice (Bass, 1998). *Intellectual stimulation* involves stimulating follower creativity by questioning assumptions and challenging the status quo. As Bass (1985) noted, "By the transformational leader's intellectual stimulation, we mean the arousal and change in followers of problem awareness and problem solving, of thought and imagination, and of beliefs and values" (p. 99). *Individual consideration* is similar to the consideration dimension from the Ohio State–Michigan studies (see Yukl, 1998, for a review) and involves attending to and supporting the individual needs of followers. Unlike the traditional consideration factor, however, individualized consideration focuses more on a follower's development and less on participative decision making (Bass, 1995).

Bass (1985) also hypothesized that four dimensions underlie transactional leadership. According to the full-range-of-leadership model (Bass, 1998), the relationship among the transactional di-

Timothy A. Judge and Joyce E. Bono, Department of Management and Organizations, Henry B. Tippie College of Business, University of Iowa.

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Correspondence concerning this article should be addressed to Timothy A. Judge, Department of Management and Organizations, Henry B. Tippie College of Business, University of Iowa, Iowa City, Iowa 52242. Electronic mail may be sent to tim-judge@uiowa.edu.

[1] To determine the recent (post-1990) popularity of transformational leadership theory, we conducted a search of the PsycINFO database from 1990 to the present. The search revealed that more articles cited transformational or charismatic leadership theory than all the other leadership theories combined (least preferred coworker or cognitive resource theory, situational leadership theory, leader–member exchange or vertical dyad linkage, normative decision theory or Vroom–Yetton model, consideration-initiating structure and leadership, path–goal theory, implicit leadership theory or romance of leadership). Specifically, 207 post-1990 articles cited transformational or charismatic leadership theory, whereas 190 cited all the other theories combined.

mensions, beyond the fact that they are, to varying degrees, oriented toward leader–follower exchanges, is that they represent relatively low forms of leader activity and involvement (at least when compared with the transformational dimensions). The four transactional dimensions, from highest to lowest activity level, are as follows.

Contingent reward is defined as providing an adequate exchange of valued resources for follower support. Contingent reward is the most active form of transactional leadership but is less active than transformational leadership, because one can engage in contingent reward without ever being closely engaged with followers (e.g., implementing a pay for performance plan). *Management by exception—active* involves monitoring performance and taking corrective action. In this manner of leadership, the leader actively monitors performance and anticipates deviations from standards. *Management by exception—passive* means intervening only when problems become serious. Both active and passive management by exception involve enforcing rules to avoid mistakes (Bass, 1997). They maintain the process of transacting and preserve the leader's attentional resources for those transactions that require the leader's attention. *Laissez-faire* is nonleadership; it is defined by avoiding leadership duties and responsibilities. Laissez-faire is the failure of both transformational and transactional leadership. However, because the full-range-of-leadership model (Bass, 1998) views all transactional leadership as less active, it makes sense that laissez-faire is the best exemplar of inactive (and thus transactional) leadership. Evidence suggests that some dimensions of transactional leadership—such as contingent reward—are positively correlated with transformational leadership, whereas others—such as laissez-faire—are negatively related to transformational leadership (Bass, 1997).

In the 20 years since transformational leadership theory was introduced, considerable support has accumulated in its favor. A recent meta-analysis suggested that, averaging across the dimensions, transformational leadership behaviors are related to subjective (ρ = .73) and objective (ρ = .30) measures of leadership effectiveness and that this relationship generalizes across type of organization (private, ρ = .53, and public, ρ = .67, sector) and higher level (ρ = .63) and lower level (ρ = .62) leaders (Lowe, Kroeck, & Sivasubramaniam, 1996). Another less well known meta-analysis (Fuller, Patterson, Hester, & Stringer, 1996) also showed that transformational leadership correlates with leader effectiveness, even when transformational leadership and effectiveness are measured independently (ρ = .34). In addition, research indicates that transformational leadership behaviors predict effectiveness controlling for transactional leadership, but the reverse is not true (Howell & Avolio, 1993). Evidence has supported the validity of transformational leadership across many different cultures, using a variety of methods (Bass, 1997).

Despite the research support, it is unclear whether this theory is a trait or behavioral theory of leadership. The first component of transformational leadership is charisma, and the very meaning of the word—*gift* in Greek—suggests a trait. Thus, it is possible that facets of transformational leadership, such as charisma, are traits or at least are influenced by traits. Even if one considers transformational leadership to be a behavioral theory, the origins of the behaviors are unclear. There is surprisingly little research to help answer the question, "Are transformational leaders born or made?" One means of addressing this question is to determine whether there is a dispositional basis to transformational leadership behaviors. However, there is very little evidence relating personality to transformational leadership behaviors. As House and Howell (1992) noted, "the theory and research concerning charismatic leader personality characteristics is both quite limited and fragmentary" (p. 84). In a recent review, Bass (1998) concluded, "When it comes to predicting transformational leadership and its components, there is no shortage of personality expectations. However, the empirical support has been spotty" (p. 122).

The purpose of the present study is to examine the relationship between personality and transformational leadership. Specifically, we examine the degree to which the five-factor model of personality is related to transformational leadership behavior. Because there is much concern in personality research about whether broad or specific personality traits best predict job performance (Hough, 1992), we also investigate the relative predictive power of broad versus specific measures of the Big Five traits. Finally, we investigate linkages between transformational leadership and a number of outcomes that reflect leadership effectiveness. Before offering hypotheses, we discuss the five-factor model of personality.

Five-Factor Model of Personality

The search for the structure of personality is as old as the study of human nature itself. Aristotle, for example, classified individuals' temperaments into several broad categories. It has only been within the last decade, however, that a taxonomic structure has become widely accepted. This categorization, termed the five-factor model or, more boldly, the Big Five, has revolutionized personality psychology. Tupes and Christal (1961) are commonly credited with discovering the Big Five, though their discovery was born from a reanalysis of data collected much earlier by Raymond Cattell. In the last two decades, a robust set of five factors has been recovered from almost every major personality inventory. Although acceptance of the classification is far from universal (e.g., Block, 1995), the robustness of structure across cultures and measures, as well as strong evidence of the heritability of the traits, has led to widespread acceptance of the five-factor model among personality researchers.

The Big Five traits are broad personality constructs that are manifested in more specific traits. Factor 1, Extraversion, represents the tendency to be outgoing, assertive, active, and excitement seeking. Individuals scoring high on Extraversion are strongly predisposed to the experience of positive emotions (Watson & Clark, 1997). Factor 2, Agreeableness, consists of tendencies to be kind, gentle, trusting and trustworthy, and warm. Factor 3, Conscientiousness, is indicated by two major facets: achievement and dependability. Conscientiousness is the trait from the five-factor model that best correlates with job performance (Barrick & Mount, 1991). Factor 4, Emotional Adjustment, is often labeled by its opposite, Neuroticism, which is the tendency to be anxious, fearful, depressed, and moody. Emotional Adjustment is the principal Big Five trait that leads to life satisfaction and freedom from depression and other mental ailments (McCrae & Costa, 1991). Finally, Factor 5, Openness to Experience (sometimes labeled Intellectance), represents the tendency to be creative, imaginative, perceptive, and thoughtful. Openness to Experience is the only Big Five trait to display appreciable correlations with intelligence.

Hypotheses

Because no prior research has linked the Big Five typology to transformational leadership behaviors, in relating the traits to transformational leadership, we draw from a combination of sources. First, because very few studies have related any direct measure of a Big Five trait to transformational leadership, we describe characteristics of the traits that are conceptually relevant to transformational leadership. Second, where possible, we describe empirical associations of hallmarks or facets of the traits with transformational leadership behavior. We group our discussion of these associations by each of the Big Five traits.

Neuroticism

Individuals who score high on measures of Neuroticism lack self-confidence and self-esteem (McCrae & Costa, 1991). However, self-confidence is argued to be an essential characteristic of transformational leaders (Bass, 1990; House, 1977). Thus, one would expect a negative relationship between Neuroticism and transformational leadership. There are several reasons this link is compelling. First, setting high performance standards and then convincing followers that attainment of these standards is possible lies at the heart of transformational leadership (Eden, 1992). Leaders who have a high level of self-confidence and self-esteem (low Neuroticism) are better able to do both of these things (Bass, 1990). Second, transformational leadership involves challenging the status quo and taking risks, which requires a high degree of self-confidence (Kirkpatrick & Locke, 1991). House and Howell (1992) noted that, "theoretically, charismatic leaders need to have a very high degree of self-confidence and moral conviction because their mission is usually unconventional and likely to be resisted by those who have a stake in preserving the status quo" (p. 87). Finally, transformational leaders have a vision that is idealized and inspires trust (Conger & Kanungo, 1987). Transformational leaders instill faith in a better future on the part of followers (Shamir, Arthur, & House, 1994). Leader self-confidence plays an important role in gaining followers' trust (Kirkpatrick & Locke, 1991) and in presenting a positive, compelling, and inspiring view of the future (Yukl, 1998).

Indeed, although empirical data are limited, research tends to support a relationship between components of Neuroticism and transformational leadership behavior. Ross and Offerman (1991) found that self-confidence and personal adjustment were positively correlated with transformational leadership. Howell and Avolio (1993) found that internal locus of control, which is strongly correlated with Neuroticism and may represent the same factor (Judge, Locke, Durham, & Kluger, 1998), was related to transformational leadership behaviors. Bennis and Nanus' (1997) study of 70 transformational leaders found them to have high self-confidence.

Hypothesis 1: Neuroticism is negatively related to transformational leadership behavior.

Extraversion

Extraversion is strongly related to social leadership (Costa & McCrae, 1988) and leader emergence in groups (Watson & Clark, 1997). There are at least two ways in which Extraversion could be linked to transformational leadership behavior. First, articulation and emotional expressiveness have been argued to be characteristics of charismatic leaders (Friedman, Prince, Riggio, & DiMatteo, 1980; House, 1977). Gardner and Avolio (1998) noted that "charismatic leaders are exceptionally expressive persons, who employ rhetoric to persuade, influence, and mobilize others. These leaders are the epitome of drama" (p. 33). The previous statement might just as well substitute *extraverted* for *charismatic,* as extraverts have strong tendencies to be articulate, expressive, and dramatic (Goldberg, 1990; Watson & Clark, 1997).

Second, House's (1977) model of charismatic leadership identifies dominance as one of the requisite traits of transformational leaders. House and Howell (1992) argued that in personality research, dominance does not mean what it might connote to most people (being pushy or authoritarian). Rather, individuals who score high on dominance "tend to take initiative in social settings, to introduce people to each other, and to be socially engaging by being humorous, introducing topics of discussion, and stimulating social interaction" (House & Howell, 1992, p. 85). This definition of dominance distinguishes aggressive dominance from social dominance, the latter of which includes sociability (Kalma, Visser, & Peeters, 1993). Indeed, Bass (1998) reports on the results of a study finding that sociability was significantly correlated with transformational leadership behavior. The trait that lies at the intersection of dominance and sociability is Extraversion. Trapnell and Wiggins (1990) found that dominance was the single best adjective marker of Extraversion, whereas other researchers consider sociability to be the principal component of Extraversion (see Watson & Clark, 1997). Thus, as sociability and dominance appear to relate to transformational leadership, it follows that the general construct representing these tendencies—Extraversion—relates to transformational leadership.

Hypothesis 2: Extraversion is positively related to transformational leadership behavior.

Openness to Experience

As the least studied Big Five trait, there is a dearth of evidence linking Openness to Experience to any aspect of leadership. However, even in the absence of data, there appears to be good reason to expect that Openness to Experience is related to transformational leadership behavior. First, transformational leaders need to be creative and original. As Conger and Kanungo (1987) wrote, "charismatic leaders are not group facilitators like consensual leaders, but they are active innovators . . . their . . . behaviors must be novel, unconventional, and out of the ordinary" (p. 643). Why is creativity important to transformational leadership? Bennis (1989) argued that vision comes from a process of creative introspection; this process is more instinctive and right-brain oriented than a product of rational thought or left-brain thinking. The link between creativity and Openness to Experience is clear. Openness to Experience correlates with divergent thinking (McCrae, 1987) and is strongly correlated with personality-based measures of creativity (McCrae & Costa, 1997), as well as with behavioral measures (Feist, 1998). Thus, creativity is related to both Openness to Experience and transformational leadership, suggesting an association between the latter two constructs.

Second, because the meaning of *transform* is to change, the ability to embrace and champion change lies at the heart of

transformational leadership (Bass, 1985). Open individuals have a strong need for change and are better able to understand and adapt to others' perspectives (Costa & McCrae, 1988; McCrae, 1996). One of the ways in which transformational leaders effect change is through intellectual stimulation, one of the four components of Bass' (1985) conceptualization of transformational leadership. Intellectual stimulation involves questioning old assumptions, stimulating new perspectives and ways of doing things in others, and encouraging the expression of ideas (Bass, 1997). Leaders who score high on measures of Openness to Experience would be expected to provide more intellectual stimulation, as Openness to Experience is related to intellectuality or intellectance (McCrae & Costa, 1997).

Hypothesis 3: Openness to experience is positively related to transformational leadership behavior.

Agreeableness

Charismatic leaders have been described as generous and concerned for others. Transformational leaders give special attention to neglected group members, treat each subordinate as an individual, and express appreciation for a job well done (Bass, 1985). Indeed, individualized consideration is one of the four dimensions of transformational leadership. Conger and Kanungo (1987) suggested that charismatic leaders are highly sensitive to the needs of followers. Why is consideration important to transformational leadership? According to Bass (1985), for the transformational bond to endure with followers, the leader must make a link to them—leaders must take a developmental orientation toward their subordinates and consciously or unconsciously serve as role models. To mentor successfully, one needs empathy (Bass, 1985), and this is where Agreeableness enters the picture. According to Wiggins (1996), the primary motivational orientation of agreeable individuals is altruism—the concern with others' interests and empathy for their condition (Digman, 1989; McCrae & John, 1992). Indeed, evidence indicates that agreeable supervisors are more approachable in the eyes of their subordinates (Hogan & Shelton, 1998). Supporting these arguments, Ross and Offerman (1991) found positive relationships between several aspects of Agreeableness (e.g., compassion, nurturance) and charismatic leadership.

Hypothesis 4: Agreeableness is positively related to transformational leadership behavior.

Conscientiousness

Bass (1985) has argued that self-determination is likely a characteristic of transformational leaders. Because achievement and self-discipline are the major components of Conscientiousness (Barrick & Mount, 1991), it might be argued that Conscientiousness is related to transformational leadership. The empirical data, however, do not appear to support this argument. Avolio et al. (1996) found that Conscientiousness displayed very weak, nonsignificant correlations with supervisor and subordinate ratings of transformational leadership. In their study of U.S. presidents, House, Spangler, and Woycke (1991) found that achievement was negatively correlated with charisma. In light of the empirical evidence, we do not offer a hypothesis regarding the relationship of Conscientiousness to transformational leadership, but investigate the relationship on an exploratory basis.

Relative Merits of Specific Versus General Facets

One of the most prominent criticisms of the five-factor model is that it provides too coarse a description of personality (Hough, 1992). Although some researchers have argued that the traits in the five-factor model are too narrow (i.e., there should be fewer, broader traits), most personality psychologists who criticize the number of factors do so on the basis of too few factors. As Block (1995) noted, "for an adequate understanding of personality, it is necessary to think and measure more specifically than at this global level if behaviors and their mediating variables are to be sufficiently, incisively represented" (p. 208). When predicting job behaviors, Hough concurred, arguing that the Big Five are too broad and may mask important linkages between specific personality traits and specific behaviors (Schneider & Hough, 1995). For example, two facets of Conscientiousness—achievement and dependability—may correlate quite differently with transformational leadership behavior. Because the relative merits of specific versus general facets is currently being debated in both personality and industrial–organizational psychology, with proponents on both sides of the issue, we do not offer hypotheses on this matter (though we do note several expected relationships between specific facets and transformational leadership in the preceding section). Rather, in addition to testing the hypothesized linkages between the broad Big Five constructs and transformational leadership, we investigate the relative predictive power of more specific facets of the Big Five traits.

Relationship Between Transformational Leadership and Leader Outcomes

On the face of it, meta-analytic findings clearly indicate that transformational leadership is effective in influencing both subordinate perceptions of leadership effectiveness and organizational outcomes (Fuller et al., 1996; Lowe et al., 1996). However, room for further development exists in several areas. First, most of the studies have included as outcomes subordinate responses to items contained in the same measure used to evaluate the leader's behaviors, the Multifactor Leadership Questionnaire (MLQ). Specifically, in addition to containing items that assess transformational leadership behaviors, the MLQ also has items that assess subordinate outcomes, such as subordinate satisfaction with the leader. As Hater and Bass (1988) acknowledged, this measurement approach may bias the relationships between subordinate ratings of leader behaviors and subordinate-rated outcomes (thus partly explaining the high correlations found in previous meta-analyses). Furthermore, the MLQ ratings do not include some potentially relevant outcomes, such as organizational commitment or overall job satisfaction. Although one would expect that the subordinates of transformational leaders are more satisfied with their jobs and more committed to their organizations, with a few exceptions (e.g., Barling, Weber, & Kelloway, 1996; Podsakoff, MacKenzie, & Bommer, 1996), there is little evidence to support these linkages.

Second, although evidence demonstrating a link between transformational leadership behaviors and business unit outcomes is impressive, it would be useful to know whether transformational

leadership behaviors result in supervisors evaluating the leader as more effective. We are aware of no study that has linked transformational leadership behaviors to supervisory evaluations of leadership effectiveness. As Shamir, Zakay, Breinin, and Popper (1998) noted, subordinates are only one of the constituencies of transformational leaders, and more research is needed on one of their more important constituents—their superiors. Determining whether superiors see transformational leaders as effective is important, as these superiors are largely responsible for the development and promotion of their subordinates. Thus, those leaders who enact transformational behaviors early on will be promoted to broader leadership positions only if their superiors see them as effective.

Third, most (albeit certainly not all) of the studies relating transformational leadership behaviors to outcomes have been conducted in educational or military settings. Thus, as Lowe et al. (1996) noted, there is a continuing need to study transformational leadership in broader settings.

On the basis of the extant research literature, as well as the research needs reviewed above, we link transformational leadership behaviors to a number of outcomes. First, because followers, when asked to identify their ideal leader, tend to identify a transformational leader (Bass, 1997), we predict that transformational leadership is positively related to subordinate satisfaction with the leader. Second, at its best, transformational leadership involves satisfying unfulfilled needs on the part of follower (Burns, 1978) and inspires the pursuit of transcendental goals, leading followers to identify with a cause beyond their own immediate self-interests (Bass, 1985). Therefore, we expect that transformational leadership will be positively related to subordinate overall job satisfaction and organizational commitment. Third, because transformational leaders raise performance expectations and, thus, goal levels, greater work motivation should result. Fourth, although it is relatively unstudied, we do not believe that transformational leadership is phenomenologically unique (i.e., only in the eyes of the beholder). Rather, we believe that the behaviors of transformational leaders produce leadership perceptions in observers beyond those being led. Thus, we believe that transformational leadership behaviors are related to supervisory appraisals of leader effectiveness.

Hypothesis 4: Transformational leadership behavior is positively related to the following outcomes: (a) subordinate satisfaction with leader, (b) subordinate overall job satisfaction, (c) subordinate organizational commitment, (d) subordinate work motivation, (e) supervisory ratings of leader effectiveness.

Finally, Bass (1985) proposed an augmentation hypothesis in which transformational leadership behaviors predict effectiveness after controlling for the effects of transactional leadership but not vice versa. A few studies have directly addressed the augmentation hypothesis (e.g., Hater & Bass, 1988), but room for further replication remains. (Because the focus of this article is on transformational leadership, we do not address the other part of Bass' augmentation hypothesis—that transactional leadership does not predict outcomes controlling for transformational leadership.)

Hypothesis 5: Transformational leadership behavior is positively related to leadership outcomes controlling for transactional leadership behavior.

Method

Participants and Procedure

Participants in this study were currently enrolled in or alumni of community leadership programs throughout the Midwest. Community leadership programs are offered in an effort to encourage local leaders in business and government to exercise their leadership skills as stewards of their communities. These programs are affiliated with the National Association for Community Leadership, an organization that provides training, assistance, and information. Programs are managed and funded at the local level, with 75% of such programs associated with local Chambers of Commerce. Community leadership programs select their participants annually from a pool of leaders nominated by local businesses. The number of participants per program ranges from 20 to 40, depending on the size of the community. Thus, participants in general are individuals who currently hold management or leadership positions and are believed to have the potential for providing leadership to the community as a whole. The sample for the current study was drawn from 11 such programs throughout the Midwest (see the Appendix for a listing of programs).

At the initial class orientation, survey packets were distributed to all 316 current class participants. Survey packets contained a personality survey to be completed by the participant, another survey to be completed by the participant's supervisor, and surveys to be completed by subordinates. Procedures varied slightly by program such that approximately 50% of the participants completed the personality survey during class time, whereas others completed the personality survey at home. In any case, participant personality surveys were returned in sealed envelopes to the director of the community leadership program and subsequently to us. Participants were instructed to immediately distribute the supervisor and subordinate surveys. As supervisor and subordinate responses were returned directly to us, their responses were completely confidential. An identification number, which consisted of a program identifier and a randomly assigned participant number (e.g., CR-10), was used to match responses.

In addition to current program participants, survey packets were mailed to 240 recent (1–5 years) alumni of four of the participating programs. In the case of alumni, survey packets were mailed directly to participants at their business addresses and all responses were returned directly to us. Approximately 7% of the alumni packets were unable to be delivered, as participants were no longer employed at their former place of business, resulting in 223 deliverable alumni packets. Information on response rates to each survey and by each program is provided in the Appendix.

Most of the directors of the 11 leadership programs strongly encouraged completion of the personality survey. As an incentive for completing the personality survey, participants were offered the opportunity for feedback on their personality at the close of the study. Those interested in personality feedback were asked to record the last five digits of their social security number on the personality survey. Although participants were informed that the results of such a study are more meaningful with full participation, they were notified that involving their subordinates and supervisors in the survey was completely optional. Those who chose to participate fully in the study were asked to distribute subordinate surveys to individuals "who report to you and with whom you work most closely." Participants were asked to give the supervisor survey to "the person who is your direct supervisor." The supervisor instructions noted that the purpose of the study was to learn more about the characteristics of effective leaders and asked supervisors to rate the effectiveness of the leader. Subordinate surveys contained instructions noting that the survey contained questions in reference to themselves and their supervisors.

Of the 48% of leaders who returned a personality survey, we received supervisor surveys for 84% of these individuals and at least one subordinate survey for 88% of these participants. In each leadership program, a few participants did not have subordinates. These individuals completed personality surveys but provided no further data. Thus, only a small percentage of participants who had subordinates did not provide subordi-

nate data. Although we cannot determine the extent to which the missing supervisor and subordinate surveys represent surveys that were never distributed or surveys that supervisors and subordinates chose not to complete, in either case, the numbers are small.

The average age of participants was 39 years, and 88% had a bachelor's degree or higher. Fifty-seven percent of the sample were women. On average, participants had been in their current job for 6.7 years and had been with their current organization for 8.2 years. Most participants (52%) had 4 or fewer subordinates directly reporting to them, though 17% supervised 10 or more individuals. Median organizational size was 100 employees (M = 2,150). Participants represented a wide range of industries, including banking, insurance, and financial services (22%), service (17%), public sector (13%), education (13%), health care (12%), nonprofit (9%), law (6%), manufacturing (5%), and media (4%). Participants held a wide range of positions; job titles could be classified as follows: assistant or coordinator (9%), manager (21%), director (23%), vice president (13%), president/CEO (8%), other (26%; engineer, attorney, architect, police captain, dean, editor, psychologist, program analyst, etc.).

Measures

Big Five personality traits. The Big Five personality traits were measured with the 240-item NEO Personality Inventory—Revised (NEO–PI–R; Costa & McCrae, 1992), perhaps the most widely used and extensively validated measure of the five-factor model.[2] As a review of the NEO–PI–R has noted, the NEO exhibits relatively high internal consistency, high test–retest reliability, and strong convergent and discriminant validity (Botwin, 1995). Each of the five factors in the NEO–PI–R is subdivided into six facets. The facets for each dimension are as follows: Neuroticism—anxiety, angry hostility, depression, self-consciousness, impulsiveness, and vulnerability; Extraversion—warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotions; Openness to Experience—fantasy, aesthetics, feelings, actions, ideas, and values; Agreeableness—trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness; Conscientiousness—competence, order, dutifulness, achievement striving, self-discipline, and deliberation. Each facet is measured with eight items, and thus each construct is measured with 48 items. Reliabilities of the eight-item facets ranged from .65 to .86; the average reliability was .76. The reliabilities for the facets were somewhat higher than those reported in the NEO user's manual (Costa & McCrae, 1992). Participants responded on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Transformational leadership behaviors. Transformational leadership behaviors were measured with the MLQ, the most frequently used measure of transformational leadership.[3] Reviews of previous versions of the MLQ have reached generally positive conclusions about its psychometric properties (Kirnan & Snyder, 1995). Bycio, Hackett, and Allen (1995) found some support for the MLQ dimensions (confirmatory factor analyses supported the hypothesized dimensions) but also identified some areas of concern (the transformational dimensions did not have differential relations with outcome variables). In response to some of the limitations of previous versions of the MLQ, including those found in Bycio et al. (1995), Avolio, Bass, and Jung (1995) reported on several studies used to assess the psychometric properties of the latest version of the MLQ—the one used in the present study—Form 5x. The MLQ–5x assesses four dimensions of transformational leadership corresponding to Bass' (1985) theory (sample items are in parentheses): idealized influence–attributed ("Displays a sense of power and confidence") and idealized influence–behavior ("Talks to us about his/her most important values and beliefs"), inspirational motivation ("Articulates a compelling vision of the future"), intellectual stimulation ("Re-examines critical assumptions to question whether they are appropriate"), and individualized consideration ("Spends time teaching and coaching me"). Each of the dimensions is assessed with four items (including each of the two idealized influence subdimensions). Avolio et al. (1995) reported that the MLQ–5x dimensions display high reliability and offered evidence for convergent and discriminant validity. These MLQ items were evaluated on a 5-point scale ranging from 0 (*not at all*) to 4 (*frequently, if not always*), with the score for each leader representing the average response across the two subordinates who rated the leader.

Transactional leadership behaviors. Transactional leadership dimensions also were measured with the MLQ. The MLQ–5x assesses four dimensions of transactional leadership (sample items are in parentheses): contingent reward ("Makes clear what I can expect to receive, if my performance meets designated standards"), management by exception—active ("Spends his/her time trying to 'put out fires' "), management by exception—passive ("Fails to intervene until problems become serious"), and laissez-faire ("Fails to follow-up requests for assistance"). Each of the dimensions is assessed with four items. These MLQ items were evaluated on a 5-point scale ranging from 0 (*not at all*) to 4 (*frequently, if not always*), with the score for each leader representing the average response across the two subordinates who rated the leader.

Subordinate satisfaction with leader. Subordinate satisfaction with the leader was measured with three items from the Job Diagnostic Survey (Hackman & Oldham, 1980). The three items were, "I am satisfied with the overall quality of supervision I receive in my work," "I am satisfied with the amount of support and guidance I receive from my supervisor," and "I am satisfied with the degree of respect and fair treatment I receive from my boss." These items were averaged for each subordinate and then averaged across the two subordinates. Responses to these three items were evaluated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Subordinate overall job satisfaction. Subordinate overall job satisfaction was measured with five items taken from the Brayfield–Rothe measure of overall job satisfaction (Brayfield & Rothe, 1951). These five items were, "I feel fairly satisfied with my present job," "Most days I am enthusiastic about my work," "Each day at work seems like it will never end (reverse scored)," "I find real enjoyment in my work," and "I consider my job to be rather unpleasant" (reverse scored). Responses were evaluated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). As with satisfaction with the leader, the measure was computed as the average response to each item across the two subordinates.

Subordinate organizational commitment. Subordinate organizational commitment was measured with the Affective Commitment scale (Allen & Meyer, 1990). The affective scale was used because it provides a specific measure of the employees' desire to remain with the organization rather than a need to do so (continuance commitment). Sample items include, "I would be very happy to spend the rest of my career with this organization," "I enjoy discussing my organization with people outside it," and "I do not feel a strong sense of belonging to my organization" (reverse scored). As with the satisfaction items, responses were evaluated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and were averaged across items and the two subordinates.

Subordinate work motivation. Subordinate work motivation was measured with three items from the MLQ that assess subordinate willingness to exert extra motivation as a result of the leader's influence. An example item is "My leader increases my willingness to try harder." The three items were evaluated on a 5-point scale ranging from 0 (*not at all*) to 4 (*frequently, if not always*). Again, the score for each leader represented the average response across the two subordinates.

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[2] The NEO–PI–R personality inventory was used by special permission of the publisher, Psychological Assessment Resources, 16204 North Florida Avenue, Lutz, Florida 33549. It is taken from the NEO Five Factor Inventory, by Paul Costa and Robert McCrae, Copyright 1978, 1985, 1989 by Psychological Assessment Resources. Further use or reproduction of the NEO–PI–R is prohibited without permission of the publisher.

[3] The MLQ, Form 5× (Copyright 1995 by Bernard Bass and Bruce Avolio), was used with permission of Mind Garden, 1690 Woodside Road, Suite 202, Redwood City, California 94061. All rights reserved.

Leader effectiveness. Leader effectiveness was measured with five items completed by the leader's immediate supervisor. Items were written to reflect the outcomes associated with transformational leadership and overall leader effectiveness. The supervisor was asked to rate the leader on a 7-point scale ranging from 1 (*very poor*) to 7 (*very strong*). Example items include, "On his/her ability to lead his/her subordinates to meet group performance goals," and "Overall, as a leader." The leader effectiveness scale had an internal consistency reliability of .89.

Results

Psychometric Properties of Subordinate Ratings

Table 1 provides statistics on the reliability and agreement of the measures completed by the subordinates. The first two columns provide internal consistency reliability estimates of the measures for the subordinates (the first subordinate survey received was designated Subordinate 1, and the second one received was designated Subordinate 2). Across the 12 measures for the 2 subordinates, the internal consistency of only 1 measure (management by exception—active for Subordinate 1) was less than .70. The average reliability across both subordinate raters was .79. Thus, in general, the measures were internally consistent. When a rating of a target is completed by multiple raters, another way to investigate reliability is interrater reliability. Accordingly, we calculated intraclass correlation (ICC) coefficients, which estimate homogeneity among raters evaluating the same object (in this case, the leader). As Ostroff and Schmitt (1993) noted, rules of thumb for gauging the adequacy of ICCs have not been forthcoming. Past researchers, however, have used levels for ICC(1) above .20 (Ostroff & Schmitt, 1993) to justify aggregation. In the present study, the ICCs can be argued to be moderate in magnitude (M = .32). They are comparable in magnitude to three peers rating a participant's personality according to the NEO–PI (M = .37; McCrae & Costa, 1987) and are higher than when employees evaluate aspects of their work environment such as organizational climate (M = .28; Ostroff & Schmitt, 1993). Indeed, Table 1 shows that subordinate ratings of leader behavior are more reliable (M = .36) than their evaluations of their work environment (e.g., overall job satisfaction, organizational commitment). Finally, because the ICC statistic is dependent on total variance and variance between groups as much as it is dependent on within-group consistency, we also calculated r_{wg} statistics (James, Demaree, & Wolf, 1993) for the individual ratings. The mean r_{wg} statistic was .74. This relatively high level of interrater agreement appeared sufficient to justify aggregation.

Table 1
Reliability and Interrater Agreement of Subordinate Assessments

Variable	Internal consistency (α)		ICC	r_{wg}
	Sub 1	Sub 2		
Idealized influence	.86	.88	.39	.79
Inspirational motivation	.81	.84	.43	.80
Intellectual stimulation	.72	.79	.31	.76
Individualized consideration	.74	.73	.35	.74
Contingent reward	.70	.71	.27	.77
MBE—active	.74	.70	.30	.68
MBE—passive	.66	.72	.36	.77
Laissez-faire	.74	.72	.44	.83
Satisfaction with supervision	.91	.90	.28	.88
Overall job satisfaction	.79	.83	.21	.50
Organizational commitment	.82	.86	.20	.73
Work motivation	.79	.84	.32	.65

Note. Sub = subordinate; ICC = intraclass correlation; MBE = management by exception; r_{wg} = within-group correlation.

Descriptive Statistics, Correlations, and Dimensionality of Transformational Leadership

Table 2 presents the means, standard deviations, and intercorrelations among the study variables. In comparing the means of the leadership measures in our study with the nine studies used to develop norms for the MLQ–5x (Avolio et al., 1995), we found that the means for transformational leadership were quite similar to the norms. On the other hand, the means for transactional leadership differed somewhat from the MLQ norms. Contingent reward was higher in our study than for most of the studies in the MLQ database, whereas the other transactional dimensions were somewhat lower than the MLQ norms.

As can be seen in Table 2, and consistent with past research on the MLQ (see Lowe et al., 1996), the correlations among the transformational leadership dimensions are relatively high. Because of these high correlations and because the dimensions have failed to exhibit discriminant validity in predicting leadership outcomes (Bycio et al., 1995), we conducted a principal-components analysis of the four dimensions both for subordinates individually and for the average of the subordinate ratings. For all three analyses, one factor with an eigenvalue greater than 1.0 was extracted. As is shown in Table 3, the average factor loading was .88 and, on average, the single factor explained 77% of the variance in the measures. Because it appeared that a single dimension could adequately capture the variance in the four dimensions, in subsequent analyses we treated transformational leadership as a single dimension.[4]

Personality and Transformational Leadership

Table 4 provides the results linking the Big Five personality traits to transformational leadership. Because Murphy (1996) recommended studying personality using a multivariate framework, in addition to the correlations, we also report standardized regression coefficients for which the effect of one trait is adjusted for the influence of the other traits. To provide unbiased estimates of the true relationships between the variables, in addition to the uncorrected coefficients, we also report correlation and regression coefficients that were corrected for unreliability due to measurement error. As shown in Table 4, of all the Big Five traits, Agreeableness displayed the strongest relationship with transformational leadership. Extraversion also displayed significant relations with

[4] When the four transactional dimensions were factor analyzed, a clear factor structure did not emerge. Specifically, contingent reward loaded negatively on a factor on which management by exception—passive and laissez-faire loaded positively, and management by exception—active loaded by itself on a second factor. Because it was difficult to interpret the meaning of this structure, we analyzed the four transactional dimensions separately.

Table 2
Descriptive Statistics and Intercorrelations Among Big Five Traits, Leadership Behaviors, and Leader Effectiveness Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Neuroticism	3.17	0.66	—																	
2. Extraversion	5.07	0.62	−.22*	—																
3. Openness to Experience	4.89	0.67	−.07	.38*	—															
4. Agreeableness	5.17	0.57	−.20*	.20*	.30*	—														
5. Conscientiousness	5.23	0.53	−.42*	.19*	−.09	.17*	—													
6. Idealized influence	2.83	0.58	.01	.22*	.18*	.28*	−.04	—												
7. Inspirational motivation	3.03	0.58	−.03	.24*	.22*	.21*	−.06	.77*	—											
8. Intellectual stimulation	2.63	0.59	.07	.14†	.10	.24*	−.10	.70*	.54*	—										
9. Individualized consideration	2.71	0.64	.01	.19*	.21*	.23*	.01	.78*	.58*	.70*	—									
10. Contingent reward	2.64	0.57	.09	.10	.11	.20*	−.06	.76*	.59*	.66*	.71*	—								
11. MBE—active	1.28	0.68	−.04	−.06	−.02	−.02	.02	−.08	−.13†	−.06	−.08	.01	—							
12. MBE—passive	0.89	0.57	−.08	−.08	−.10	−.15*	−.14†	−.44*	−.31*	−.40*	−.41*	−.47*	.07	—						
13. Laissez-faire	0.66	0.52	−.07	−.07	−.03	−.15*	−.18*	−.53*	−.35*	−.41*	−.46*	−.58*	−.02	.64*	—					
14. Satisfaction with supervision	5.85	0.95	.03	.13†	.02	.13†	.00	.65*	.48*	.49*	.59*	.59*	−.22*	−.43*	−.53*	—				
15. Overall job satisfaction	5.89	0.64	.02	.06	.02	−.09	−.06	.29*	.24*	.22*	.26*	.29*	−.18*	−.12	−.21*	.49*	—			
16. Organizational commitment	5.11	0.80	.00	.11	.05	−.03	−.08	.38*	.29*	.35*	.36*	.38*	−.09	−.19*	−.31*	.48*	.65*	—		
17. Work motivation	2.78	0.91	−.02	.14†	.12	.11	.01	.59*	.52*	.48*	.58*	.52*	−.06	−.34*	−.38*	.46*	.30*	.40*	—	
18. Leadership effectiveness	5.46	0.85	−.16*	.19*	.27*	.03	−.04	.23*	.24*	.11	.15†	.09	−.11	−.04	−.04	.11	.01	.02	.11	—

Note. Because different sample sizes were available for different combinations of variables, correlations were estimated using pairwise deletion. MBE = management by exception.
† $p < .05$ (one-tailed). * $p < .05$ (two-tailed).

Table 3
Principal-Components Analysis of Transformational Leadership Dimensions

Leadership dimension	Sub 1	Sub 2	Combined
Idealized influence	.93	.94	.94
Inspirational motivation	.83	.85	.83
Intellectual stimulation	.85	.87	.84
Individualized consideration	.86	.90	.88
Eigenvalue	3.03	3.16	3.05
Percentage of variance explained	75.7	79.1	76.4

Note. With the exception of eigenvalues and percentage of variance explained, table entries are factor loadings on the single factor whose eigenvalue was greater than 1. Sub = subordinate.

transformational leadership across the estimations. With respect to Openness to Experience, the simple correlation was significant but the partial regression coefficient was not significant. Finally, neither Neuroticism nor Conscientiousness displayed any significant relationships with transformational leadership. Thus, Hypothesis 2 (Extraversion) and Hypothesis 4 (Agreeableness) are supported by the results, support for Hypothesis 3 (Openness to Experience) is equivocal, and Hypothesis 1 (Neuroticism) is not supported.

Comparison of the facet- and construct-level predictions are provided in Table 5. To test the relative predictive power of the six facets for each Big Five trait versus the overall construct (which represents the six facets added together), we report several statistics. For each Big Five trait, we estimated two regressions: (a) We entered the six facets as a set into a regression equation predicting transformational leadership, and (b) we entered the overall unit-weighted trait into a separate regression equation. For both regressions, we report the multiple correlation (R) and the squared multiple correlation (R^2). We also report the mean zero-order correlation (M_r) between the six facets and transformational leadership. As is shown in Table 5, a regression-weighted multiple correlation involving the facets of each Big Five trait is typically higher than the correlation involving the unit-weighted construct. However, the differences are generally fairly small. Furthermore, only for openness was the squared multiple correlation for the six

Table 4
Relationship Between Big Five Traits and Transformational Leadership Behavior

Big Five trait	r	r_c	β	β_c
Neuroticism	.02	.03	.07	.08
Extraversion	.22**	.28**	.15†	.20†
Openness to Experience	.20**	.26**	.07	.02
Agreeableness	.27**	.32**	.23**	.28**
Conscientiousness	−.05	−.06	−.06	−.10
R			.34**	.40**
R^2			.12**	.16**

Note. Listwise $N = 169$. r = simple (zero-order) correlation; r_c = simple correlation corrected for measurement error; β = standardized regression coefficient; β_c = standardized regression coefficient corrected for measurement error.
† $p < .05$ (one-tailed). * $p < .05$ (two-tailed). ** $p < .01$ (two-tailed).

Table 5
Big Five Facets Versus Overall Construct in Predicting Transformational Leadership Behavior

Facet and construct	R	M_r	R^2	Significant facet
Neuroticism				
Facet	.12	.04	.01	
Overall construct	.02		.00	
Extraversion				
Facet	.22	.10	.05	Assertiveness (r = .16*)
				Positive emotions (r = .15*)
Overall construct	.22		.05**	Activity (r = .13†)
Openness to Experience				
Facet	.29	.11	.09*	Feelings (r = .17*)
				Actions (r = .14†)
Overall construct	.20		.04**	Ideas (r = .15†)
				Values (r = .17*)
Agreeableness				
Facet	.23	.13	.05	Trust (r = .15†)
				Straightforwardness (r = .16*)
Overall construct	.27		.07**	Altruism (r = .14†)
				Tender-mindedness (r = .13†)
Conscientiousness				
Facet	.25	.07	.06	
Overall construct	.05		.00	

Note. R = multiple correlation when six facets were entered individually into regression or when single unit-weighted construct was entered into regression; M_r = average absolute zero-order correlation between the six facets and transformational leadership behavior.
† $p < .05$ (one-tailed). * $p < .05$ (two-tailed). ** $p < .01$ (two-tailed).

facets statistically significant. Lastly, the mean correlation between the six facets and transformational leadership was generally smaller than the correlation involving the overall construct, and those facets that did significantly correlate with transformational leadership did so less well than the overall construct.

Finally, Judge, Locke, and Durham (1997) have proposed a personality construct of core self-evaluations that is manifested in self-esteem, locus of control, generalized self-efficacy, and (low) Neuroticism. Judge et al. (1998) showed that these four traits loaded on the same underlying construct, and the apparent validity of this broad construct suggests that it may be useful in many areas of research. Thus, we thought this broader conceptualization of Neuroticism might have a stronger relationship with transformational leadership. Accordingly, we included the Rosenberg (1965) measure of self-esteem (α = .84), eight items from the Levenson (1981) measure of locus of control (α = .70), and the Judge et al. (1998) measure of generalized self-efficacy (α = .86), in addition to the previously described measure of Neuroticism. The correlations involving self-esteem ($r = -.06$, $N = 174$), locus of control ($r = .11$, $N = 173$), generalized self-efficacy ($r = .01$, $N = 174$), and Neuroticism (described previously, $r = .02$, $N = 174$), as well as the four traits added together (once all four were standardized and neuroticism was reverse scored; $r = .03$, $N = 168$), were all nonsignificant. Thus, regardless of whether Neuroticism was assessed traditionally or according to Judge et al.'s (1998) theory of core self-evaluations, it was not related to transformational leadership.

Transformational Leadership and Leadership Effectiveness

Results linking leadership behaviors to measures of leadership effectiveness are provided in Table 6. As the table indicates, controlling for transactional leadership, transformational leadership behavior significantly predicted all of the outcomes, with the exception of subordinate overall job satisfaction. In several cases, dimensions of transactional leadership significantly predicted the outcomes. Management by exception—active negatively predicted subordinate satisfaction with the leader and subordinate overall job satisfaction. Laissez-faire leadership negatively predicted subordinate satisfaction with the leader and subordinate organizational commitment. Finally, contingent reward positively predicted subordinate satisfaction with the leader. In general, though, most of the transactional leadership behaviors did not significantly predict leadership effectiveness.[5]

To determine whether transformational leadership predicted the outcomes when personality and relevant control variables were controlled for, we estimated the regressions in Table 6, controlling for the Big Five traits and conceptually relevant control variables. Because some demographic differences in transformational leadership have been reported in the literature (Bass, 1998), we con-

[5] Although it would have been desirable to add the dimensions of transactional leadership in the same way that we did with transformational leadership, we did not do so because the transactional dimensions are inconsistently related to one another (see Table 2). Accordingly, it would only make sense to add the dimensions together if the combination represented an aggregate, as opposed to latent, multidimensional construct (Law, Wong, & Mobley, 1998). Because this issue has not been explicitly considered in transformational leadership research, we were reluctant to proceed without guidance from the research literature. Finally, because we were interested in the validity of transformational leadership controlling for transactional leadership (and not the converse) and the fact that the regression-weighting approach used to control for transactional leadership generally optimizes its validity, the lack of compatibility should not bias our estimates of the validity of transformational leadership.

Table 6
Relationship Between Leadership Behaviors and Measures of Leadership Effectiveness

Leadership behavior	Subordinate satisfaction with leader	Subordinate overall job satisfaction	Subordinate organizational commitment	Subordinate work motivation	Leader effectiveness
Contingent reward	.17†	.18	.13	.05	−.16
MBE—active	−.21**	−.18*	−.08	.00	−.07
MBE—passive	−.01	.12	.11	−.04	.02
Laissez-faire	−.24**	−.11	−.17†	−.06	.04
Transformational	.35**	.13	.26**	.54**	.35**
R	.71**	.37**	.44**	.63**	.26*
R^2	.51**	.14**	.19**	.40**	.07*
N	181	181	181	181	156

Note. With the exception of R and R^2 values, table entries are standardized regression (β) coefficients. MBE = management by exception.
† $p < .05$ (one-tailed). * $p < .05$ (two-tailed). ** $p < .01$ (two-tailed).

trolled for leader gender, age, educational attainment, and job and organizational tenure. Because some differences in the effectiveness of transformational leadership have been found to vary by industry sector (public vs. private) and organization size (Lowe et al., 1996), we controlled for these organizational attributes in the analysis. Finally, as potential differences in charismatic leadership effects by the closeness of the leader–follower relationship have been considered (Shamir, 1995), we controlled for the number of individuals who directly reported to the leader.

With respect to the eight control variables predicting the five outcomes, only 2 of 40 were significant (employees who worked in public sector organizations were more satisfied with their jobs, and education positively predicted leader effectiveness). This reflects prediction at exactly a chance level (.05; i.e., one would expect this many coefficients to be significant by chance alone). Furthermore, including the controls only appeared to increase, albeit only slightly, the effect of transformational leadership (e.g., the beta coefficient for transformational leadership increased from .35 to .37 when the control variables were added). With respect to the personality variables, only 1 of 25 was significant (Openness to Experience predicted leader effectiveness), again reflecting a chance level of prediction. Thus, it appears the presence of the personality traits or control variables does little to affect the relationship of transformational leadership with the outcomes.[6]

Discussion

The main purpose of this study was to link leader personality to transformational leadership behavior. Transformational leadership theory is purported to be a behavioral theory and assumes that transformational behaviors can be learned (Bass, 1998). At the same time, the theory acknowledges that behavioral differences in transformational leadership can be traced to background characteristics (Avolio & Gibbons, 1988). Although the correlations in the present study are not so large as to indicate that transformational leadership should be considered a trait theory, results do indicate that the behaviors are predictable from several personality traits. Previous researchers have called for more research on the dispositional basis of transformational leadership (Bass, 1998; House & Howell, 1992). This study responds to this call and thus fills an important void in the literature.

Although the present study does reveal reliable relations between the five-factor model and transformational leadership, it is important to note that the effect sizes were not large. The multiple correlation between the Big Five traits and transformational leadership, corrected for measurement error, was .40. The strongest individual corrected correlation with transformational leadership was .32. Although these are far from strong correlations, they are stronger than personality predictors of job performance. For example, Barrick and Mount's (1991) meta-analysis revealed a true-score correlation of .22 between Conscientiousness and job performance; two of the zero-order correlations in the present study were at least that large. Furthermore, if one examines the multiple correlation between the Big Five traits and job performance on the basis of Ones' (1993) meta-analyzed correlations among the Big Five traits, the true-score multiple correlation is .30, which again is lower than the multiple correlation revealed in this study. Thus, though the correlations were not large, results of the present study reveal that transformational leadership is predicted at least as well by the five-factor model as is job performance.

Among the Big Five traits, Agreeableness emerged as the strongest and most consistent predictor of transformational leadership behavior. Although we expected that Agreeableness would be related to transformational leadership, speaking frankly, we were surprised by the strength of the association. In retrospect, several factors may explain the result. First, although we did not break transformational relationship into its dimensions given their high intercorrelation, it is worthwhile to note that Agreeableness was the Big Five trait most strongly related to charisma. One might expect that Agreeableness is linked to transformational leadership through its association with consideration, and, indeed, Agreeableness was related to individualized consideration. However, its link with charisma, the dimension that correlates most strongly with the transformational leadership construct, might seem surprising. On the other hand, discussions of charismatic and transformational leadership emphasize the importance of trust, compassion, and

[6] We also estimated potential interactions of transformational leadership with the control variables to determine whether any of the characteristics moderated the effect of transformational leadership on the outcomes. None of the interactions were statistically significant.

empathy (Burns, 1978), which are hallmarks of Agreeableness. Second, the concept of leadership is intimately tied to groups (Yukl & Van Fleet, 1992); one cannot be a leader without followers. Evidence indicates that Agreeableness is related to group performance; in fact, of all the Big Five traits, Agreeableness is most predictive of quality of team member interaction with others and actual performance in work teams (Mount, Barrick, & Stewart, 1998). Thus, because Agreeableness is a social trait and leadership takes place in a social context, the predictive power of agreeableness should not be so surprising. Finally, it is important to remember that in this study, transformational leadership was evaluated by subordinates. If subordinates were asked to evaluate the desired traits in a leader, it seems plausible that Agreeableness might emerge as the most important trait. Thus, although subordinates are the source of transformational leadership ratings in nearly every study in the literature, it is possible that Agreeableness was related to subordinate ratings of transformational leadership because subordinates value agreeable leaders and therefore evaluate them more positively. Further research should replicate these results using different sources of ratings.

Extraversion and Openness to Experience also emerged as significant correlates of transformational leadership. Neither of these links was a surprise. Although these traits have not been directly linked to transformational leadership, the hallmarks of these traits have been argued to be characteristics of transformational leaders. What was surprising is that although Extraversion and Openness to Experience displayed significant zero-order correlations with transformational leadership that are similar to correlations between transformational leadership and Agreeableness, the effects of Extraversion and Openness to Experience dropped appreciably once the other Big Five traits were controlled. The moderate intercorrelations among the Big Five traits explain why the unique effect of each drops in the presence of the others. Typically, only zero-order correlations are reported in personality research. However, because both estimates tell us something different about the absolute and relative importance of the Big Five traits, both zero-order correlations and partial regression coefficients should be considered.

Neither Neuroticism nor Conscientiousness was related to transformational leadership. We were not surprised by the results with respect to Conscientiousness. Although Bass (1985) hypothesized that achievement—one of the major facets of Conscientiousness—should be related to transformational leadership, the empirical data do not appear to support this view (Avolio et al., 1996; House et al., 1991). Because achievement striving is one of the two major indicators of Conscientiousness, the findings of House et al. (1991)—that achievement motivation was a hindrance to transformational leadership by U.S. presidents—may be relevant here. Although U.S. presidents clearly are a unique group of leaders, House et al.'s interpretation of why high-achievement presidents were more likely to fail to be transformational (and thus effective) leaders—that such leaders do not delegate well, meddle into the affairs of subordinates, and engage in overly close supervision—may explain our failure to find a positive effect for Conscientiousness.

The null findings with respect to Neuroticism surprised us more. Although we are aware of no study that has related a direct measure of Neuroticism to transformational leadership, the link between Neuroticism and transformational leadership is conceptually compelling. We thought perhaps one reason for the weak association between Neuroticism and transformational leadership was that measures of Neuroticism were overly narrow and may more reflect stress proneness than negativism or the inability to be inspirational. However, no facet of Neuroticism was correlated with transformational leadership, nor were other related measures that we collected, such as self-esteem or locus of control. Despite many arguments to the contrary, perhaps transformational leaders are as likely to be negative as to be positive. Indeed, one can think of many charismatic leaders with essentially negative demeanors (e.g., Hitler or Stalin). Future research should attempt to replicate the neuroticism results.

Results suggested that the Big Five facets do not appear to better predict transformational leadership than do the overall traits. Thus, it does not appear the Big Five traits are too "fat" to predict transformational leadership. On the other hand, the relatively small magnitude of the correlations does not mean that the search for other traits to predict transformational leadership would be fruitless. One possibility is a circumplex approach. It is interesting to note that the adjective descriptors from a 45° rotation of the circumplex approach to trait structure for three of the Big Five traits (Hofstee, de Raad, & Goldberg, 1992) appear to closely correspond to the traits of transformational leaders: Extraversion–Agreeableness (friendly, enthusiastic, vibrant, warm, spirited, sociable), Extraversion–Openness (independent, opportunistic, adventurous, eloquent, dramatic, expressive), and Agreeableness–Openness (deep, idealistic, diplomatic, genial, understanding, sincere). Again, future research should investigate whether a circumplex approach better predicts transformational leadership.

Results of the present study also support the argument that transformational leadership matters—leaders who were rated by their subordinates as transformational were more satisfying and motivating to the subordinates, were more likely to be associated with subordinates who expressed commitment to their organizations, and were more likely to be rated by the leader's supervisor as effective leaders. It is impressive that these results were observed when controlling for transactional leadership behaviors and, in the case of leadership effectiveness, independent of the effects of common method variance. In addition, these results are noteworthy in that each of the leader–follower–supervisor groups was employed in a different organization. Thus, we can rule out the possibility that the observed relationships are due to characteristics of any single organization's culture. Although the reports of transformational behaviors in this study are not "context free" (Avolio & Bass, 1995), they can be expected to represent the behaviors of leaders from a broad variety of organizational cultures with a diverse set of behavioral norms. These results both are consistent with and extend previous research on the outcomes of transformational leadership. Transformational leadership has been linked to many outcomes, but little research has considered subordinate organizational commitment and supervisory evaluations of leadership effectiveness.

Although the correlation between transformational leadership and overall job satisfaction was statistically significant ($r = .29$, $p < .01$), the partial regression coefficient was not significant. The relatively weak relationship between transformational leadership and overall job satisfaction might be explained by the fact that supervision is only one aspect of subordinates' jobs. Even a transformational leader may be circumscribed in his or her ability

to control basic aspects of subordinates' jobs such as the type of work and working conditions. In general, the correlations between transformational leadership and subordinate perceptions are consistent with previous research, though lower than some findings that have been reported (e.g., Hater & Bass, 1988; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). One possible explanation is that findings in the present study were based on individuals from many different organizations, whereas most other studies have been based on participants within a single organization. Because many of the moderators of transformational leadership are at the organization level of analysis (Pawar & Eastman, 1997), results across organizations may be weakened by these situational moderators.

Similarly, even though transformational leadership predicted overall leadership effectiveness, the relationship was far from perfect. This leads to the natural question of what else might be causing leaders to be effective. We believe that one large component of the unexplained variance is random measurement error and variance idiosyncratic to the rater (in this case, the supervisor who evaluated the leader). Rater-specific variance is an important cause of rater unreliability (Viswesvaran, Ones, & Schmidt, 1996), and we did not correct for this source of error. Second, our study only included one possible cause of a leader's performance—leader behavior. Two other potentially important classes of influences—organizational factors (e.g., business conditions, organizational strategy) and follower characteristics (e.g., quality of followers)—were not included. Future research should study transformational leadership in the context of these factors.

Results also indicate that when transformational leadership was controlled for, transactional leadership weakly and inconsistently predicted the outcomes. Transactional leadership added very little unique explanation when transformational leadership was controlled for. Bass (1985) has offered an augmentation hypothesis wherein transformational leadership adds to the effects of transactional leadership, but exceptional transactional leadership cannot substitute for transformational leadership. Our results fully support this hypothesis—transformational leadership predicted the outcomes when we controlled for transactional leadership. Furthermore, when predicting overall leadership effectiveness, controlling for transactional leadership actually enhanced the effect of transformational leadership. This may provide indirect support for Bass' (1998) assertion that although transformational leadership is more important than transactional, the best leaders are transformational and transactional.

Limitations

Several limitations of this study need to be noted. First, implicit theories of leadership (Lord, Foti, & De Vader, 1984) may have contaminated the supervisors' evaluations of overall leadership effectiveness, such that items asking supervisors to evaluate the effectiveness of the leader may have made salient an implicit transformational theory of leadership. This concern is hard to refute given the cross-sectional design of the study, although other research (e.g., Howell & Avolio, 1993; Howell & Frost, 1989) has shown that transformational leadership behavior is effective even when implicit theories are not a viable explanation for the results. A related potential biasing factor is due to the nature of the sample. Because all of the leaders studied were interested in community service, it is possible that subordinates were more likely to rate agreeable leaders favorably (as transformational) because Agreeableness might seem consistent with the profile of a community leader. Thus, this implicit profile might have biased subordinates' ratings of transformational leadership behaviors and, thus may explain the relationship between Agreeableness and transformational leadership behavior. Although subordinates rated their leaders outside the confines of the community leadership development programs, it is possible that leaders informed their subordinates about the program, and this knowledge may have influenced their ratings.

Third, some of the relationships between subordinates' ratings of their leader's transformational leadership and the outcomes (satisfaction, commitment, motivation) are susceptible to common method variance. Seltzer and Bass (1990) used a "criss cross" method to eliminate the potential effects of common method variance, in which one subordinate's report of transformational leadership was used to predict another subordinate's report of outcomes. Although this procedure does eliminate common method variance, when there are only two raters of leadership behaviors and outcomes, as was the case in this study, such a procedure also substantially undermines the reliability of the ratings.[7] Thus, we believe it is better to acknowledge the possible biasing effect of common method variance rather than use a procedure that we know would downwardly bias the relationships. Furthermore, it is important to keep in mind that the concern over common method variance does not apply to the relationship of transformational leadership to overall leadership effectiveness, nor does it apply to the personality–transformational leadership relations.

Finally, because the leader participants in this study were able to select the subordinates to whom they gave the subordinate survey, it is possible that they attempted to pick those who they believe would give the most favorable leadership ratings. To determine the extent to which this might be true, we compared mean levels of transformational leadership ratings for the 35% of the sample who had two or fewer employees (and thus had no choice about which subordinates to give the surveys to) and the remaining 65%, who had more than two subordinates. There were no mean differences in transformational leadership scores for the two groups, $t(127) = 1.29$, *ns*. It is also possible that because participation was voluntary, certain types of leaders chose not to participate in the study at all. However, when we consider the fact that some of the participants in the personality portion of the study had no subordinates (and therefore were not able to provide subordinate reports), our response rate appears high enough to allay any concerns that our results are significantly influenced by a systematic selection bias.

[7] According to the Spearman–Brown prophecy formula based on the average ICCs of leadership behaviors and attitudinal outcomes reported in Table 1, a projected interrater reliability of .53 for two ratings of leadership behaviors would drop to .36 if only one rating were used, and a projected interrater reliability of .40 for two ratings of the outcomes would drop to .25 if only one rating were used.

Implications

When the two major findings of this study are put together—certain personality traits predict transformational leadership and transformational leadership is related to various outcomes most organizations value—they suggest that organizations might benefit from selecting leaders on the basis of certain personality traits. Yukl and Van Fleet (1992) have called for more research on the selection of transformational leaders. Results of this study suggest that consideration of three of the Big Five traits might assist organizations in choosing transformational leaders. Although this is a potential implication of the findings, it is important to note that this was not a selection study. Before the Big Five is used in selecting leaders, factors that need to be taken into account in selection contexts (e.g., adverse impact, utility) should be considered. Furthermore, leadership is only one aspect of the managerial role, so any selection implications of this study are confined to one specific (though vital) aspect of performance.

In summary, this study makes a contribution to our knowledge of transformational leadership in that it is the first to demonstrate relationships between the Big Five dimensions of personality and transformational leadership. In addition, this study provides evidence that individuals who are rated by their followers as exhibiting transformational behaviors are judged by their superiors to be more effective leaders. Furthermore, because these results were obtained on a sample of leaders from approximately 200 different organizations, including private industry, publicly held companies, and government, we can be confident that the positive outcomes associated with transformational leadership are broadly generalizable. We hope that this study will stimulate future research on the selection and development of transformational leaders.

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Appendix

Response by Community Leadership Program Location

Location	Packet	Leader	Supervisor	Sub 1	Sub 2
Cedar Rapids, IA	35	31 (89)	30 (86)	29 (83)	26 (74)
Cedar Rapids, IA (alumni)	82	10 (12)	9 (11)	11 (13)	10 (12)
Des Moines, IA	40	33 (83)	29 (73)	29 (73)	26 (65)
Des Moines, IA (alumni)	70	9 (13)	6 (9)	11 (16)	9 (13)
Dubuque, IA	25	22 (88)	9 (36)	11 (44)	4 (16)
Fort Wayne, IN	36	26 (72)	18 (50)	20 (56)	18 (50)
Iowa City, IA	24	21 (88)	20 (83)	17 (71)	14 (58)
Iowa City, IA (alumni)	59	18 (31)	16 (27)	16 (27)	16 (27)
Kalamazoo, MI	30	16 (53)	14 (47)	16 (53)	12 (40)
Lincoln, NE	38	27 (71)	20 (53)	21 (55)	17 (45)
Omaha, NE (alumni)	12	5 (42)	9 (75)	4 (33)	4 (33)
Quad Cities, IL	30	9 (30)	8 (27)	5 (17)	5 (17)
South Bend, IN	40	22 (55)	19 (48)	25 (63)	18 (45)
Waterloo, IA	18	12 (67)	11 (61)	14 (78)	11 (61)
Total	539	261 (48)	218 (40)	229 (42)	190 (35)

Note. Percentages are in parentheses. Packet indicates the number of survey packets mailed to each location. In the case of alumni mailings, packet indicates the number of survey packets that were deliverable. Sub = subordinate.

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