Personal Characteristics and the Impact of Transformational Leadership Behaviors on Follower Outcomes

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PERSONAL CHARACTERISTICS AND THE IMPACT
OF TRANSFORMATIONAL LEADERSHIP BEHAVIORS
ON FOLLOWER OUTCOMES

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy

by

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Transformational leadership has emerged as the dominant model for understanding how leaders impact affective and behavioral responses of their followers. The current study investigated the extent to which follower core self-evaluation (Judge, Locke, & Durham, 1997) and affect-based trust in leadership impact the relationship between transformational leadership behaviors and work outcomes, such as follower job satisfaction, satisfaction with the leader, perceptions of job core characteristics, and organizational citizenship behaviors. Follower core self-evaluation was found to moderate the relationship between transformational leadership behaviors and follower job satisfaction and satisfaction with the leader. Affect-based trust in the leader was found to fully mediate the relationship between transformational leadership behaviors and follower job satisfaction and satisfaction with the leader and to partially mediate relationships with organizational citizenship behaviors and perceptions of core job characteristics. Practical and theoretical implications as well as future research directions are also discussed.
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Introduction

The question of how leaders influence followers is one of the oldest and most frequently asked questions in social science (House & Podsakoff, 1994; Yukl & VanFleet, 1992). Four domains of variables have emerged as answers to this question have been sought: the leader, the follower, the situation, and outcomes. The breadth of these domains reflects the definition of leadership adopted by Yukl and VanFleet (1992) in their seminal literature review. Their definition was broad, saying leadership was “a process that includes influencing the task objectives and strategies of a group or organization, and influences people in the organization to implement the strategies and achieve the objectives of the organization” (p. 149). Leadership inquiry has moved through various phases as emphasis shifts across domains. The research was founded on an investigation of how various aspects of the leader, such as traits and behaviors, impact work outcomes. More recently, a model of leadership distinguishing between transactional and transformational leadership behaviors (Bass, 1985; Burns, 1978) has become the dominant research paradigm.

Historically, leadership research has focused the relationship between specific leader traits and behaviors and work outcomes (Bryman, 1992). Situational models of leadership posit that leadership effectiveness varies as a function of environmental circumstances. One such theory, Kerr and Jermier’s (1978) theory of substitutes and neutralizers has not been widely supported by research in the area (Podsakoff, MacKenzie, & Bommer, 1996a; 1996b). Podsakoff and his colleagues (1996a) suggested that by broadening the set of personal characteristics posited by Kerr and Jermier (1978) may increase the explanatory power of the theory. The current research suggests additional stable and malleable personal characteristics as potential
factors that impact the effectiveness of transformational leadership behaviors. Simply put, the study seeks to answer the question, “Does transformational leadership resonate more with some followers than with others” and “if so, why?” Figure 1 depicts the proposed theoretical model for the current study. Consistent with the types of relationships suggested by Kerr and Jermier (1978), both moderated and mediated relationships are represented in the model. The presence of mediated and moderated relationships between transformational leadership behaviors and work outcomes, but not between transactional leadership and work outcomes, allows for important conclusions to be drawn regarding the difference in functional mechanisms associated with each leadership style.

By exploring the conceptual differences between transformational and transactional leadership, a theoretical framework explaining what follower attributes may serve as moderators or mediators can be developed. Prior to doing so, the following sections summarize historical leadership models and review previous literature examining the direct effect of leadership (both traits and behaviors) on work outcomes. The research examining situational theories will be discussed as well.

Historical Leadership Approaches

Bryman (1992) identified four historic trends in leadership theory and research; the trait approach, the style approach, the contingency approach, and new leadership. The trait, style, and new leadership approaches are mainly concerned with the direct effects of leadership on work outcomes. The contingency approach, however, suggests that effectiveness of leadership behaviors or style depends upon the presence, absence, or magnitude of other variables. Previous contingency approaches were primarily focused on the leader-situation interaction. The current study expands this line of thinking to include the follower as an important factor in the
effectiveness of leadership behaviors. The following sections detail each of the four historical trends.

*The Trait Approach*

“Great Man” theories of leadership (Carlyle, 1841/1907) implicitly held that leaders are born, and not made. Inquiry started with physical characteristics, such as height (see Den Hartog & Koopman, 2002 for a discussion). Other research streams examined characteristics such as energy, intuition, foresight, and persuasion that when possessed in near mythic proportions were thought to be related to exceptional leadership (Yukl & VanFleet, 1992). McClelland (1961) suggested that great leaders had a specific motivational profile, namely high needs for power and achievement and a low need for affiliation. Much of this research was unsuccessful due to poorly constructed psychometric tools and poorly-defined constructs (Yukl & VanFleet, 1992). Stogdill (1948) reviewed the research available at the time and concluded that the trait approach had determined nothing of value. His review essentially marked the end of the trait approach, even though recent writings have suggested that the review was not as negative as perceived in the literature (Zaccaro, 2007). The trait approach has recently undergone a renaissance, thanks in part to the emergence of the Five Factor model (Costa & McCrae, 1992; Digman, 1990), well-accepted personality taxonomy, and improved measurement. Specifically, researchers have examined personality predictors of transformational leadership behaviors (Bono & Judge, 2003).

Adopting a strictly trait-based approach has several important shortcomings and leaves many unexplored questions. For example, identifying traits present in leaders but absent in non-leaders pertains only to leadership emergence and says little about leader effectiveness (Yukl & VanFleet, 1992). Also, trait-based research is limited by the extent to which leader traits can be reliably measured. Finally, a trait-based approach does not account for the possibility that the
effectiveness of traits may depend upon a variety of other circumstances. The behavioral approach, to be discussed in the next section, examines leader effectiveness more directly (e.g., how are leader traits expressed through behavior observable by followers). Whereas the trait-based approach assumes that leader traits result in behaviors that are observed and impact followers, the behavioral approach directly examines these behaviors.

*The Behavioral Approach*

Following Stogdill’s review, researchers began to investigate behavioral differences between effective and non-effective leaders. Rather than concentrating on leaders’ traits, researchers explored behaviors as the determinant of leader effectiveness and leader emergence. A series of studies at Big Ten universities were among the most influential of the time. At Ohio State (Fleishman, 1954; 1973) researchers examined the differences between leaders who initiated structure (provided directions and knowledge about completing the task) and those who showed individual consideration (showed concern and empathy for the individual). Leader behaviors were also studied at the University of Michigan. Led by Katz and his colleagues (Katz & Kahn, 1952; Katz, Maccoby, & Morse, 1950), these studies looked at how employee-centered leaders and production-centered leaders vary in effectiveness. Though the content of the constructs studied by Fleishman and his colleagues and Katz and his colleagues were similar, differences regarding the dimensionality of behaviors in these two research programs foreshadowed an important distinction that re-emerges in later research paradigms (Bass, 1985). Whereas the Ohio State studies proposed a two-dimensional theory of leadership (e.g., leaders could both initiate structure and demonstrate individual consideration), the Michigan studies favored a single dimension (e.g., leaders could be either employee- or production-focused, but not both).
The behaviors of individual consideration and initiating structure have been the subject of a great deal of research. A correlation between leader consideration and follower satisfaction is typically observed (Yukl, 1989). Aside from this finding, the behavioral approach has not been consistently supported and has not advanced understanding of leadership effectiveness (Yukl, 1989; Yukl & VanFleet, 1992). Critics of the behavioral approach pointed out two main flaws. First, the behavioral dimensions were not well-defined or measured (Korman, 1966). Poorly defined and measured constructs make it difficult for researchers to replicate studies. The second criticism was referred to as “the problem of the group.” The problem of the group occurs when all leader-follower relationships are considered to be the same. This criticism was addressed in subsequent research on leader-member exchange (LMX; Graen & Cashman, 1975). The behavioral approach lasted from Stogdill’s review until 1964, when Fiedler published the model statement on contingency theory (Bryman, 1992).

The Situational Approach

Following the trait and behavioral approaches, researchers began to consider how the situation in which the leader operates influences effectiveness. This approach can take two forms (Yukl & VanFleet, 1992). One line of research treats the situation as an independent variable and is concerned with how the situation influences leader behavior and work outcomes. The second approach treats the situation as moderator, whereby certain leadership traits or behaviors have different effects on work outcomes under different circumstances or situations. Approaches from both lines of research are discussed in the sections below.

Contingency theory (Fielder, 1964) represented the first of the situational approaches to leadership. These approaches suggested leadership effectiveness depended upon a match between the leaders’ traits or styles and the situation in which they were leading. Contingency
theory is a trait-based situational theory, in that task or relationship focus is assumed to be an inherent trait. This focus dictated their interaction style with a least-preferred coworker (LPC), and is assumed to be relatively stable. The theory is situational because the effectiveness of task-focused and relationship-focused leaders varies as a function of a combination of situational characteristics termed situational favorability (Fiedler, 1964).

Situational favorability was posited to lie on a spectrum from highly favorable to highly unfavorable. Leader-member relations, task structure, and power position of the leader determine situational favorability, such that favorability is lowest when leader-member relations are poor, tasks are unstructured, and leader power position is low. Task-focused leaders are hypothesized to be most effective in highly favorable or highly unfavorable situations, and relationship-focused leaders are expected to be most effective in favorable situations. Although some studies found general support for the model (e.g., Strube & Garcia, 1981), many authors have suggested the model has serious methodological problems (Yukl, 1989). From a conceptual standpoint, the model is limited because the effectiveness of the task-relationship dimension is the only trait hypothesized to be impacted by situational favorability (Yukl & VanFleet, 1992).

Situational theories of leadership can also be behavioral (for a more extensive review, see Yukl & VanFleet, 1992). Path-goal theory (House, 1971) was also a situational theory but differed from contingency theory in that it hypothesized effective leaders are capable of varying their leadership style or behavior (directive, achievement-oriented, participative, or supportive) in different situations. A leader’s behavior is seen as acceptable and effective when it is an immediate source of satisfaction for the follower or is likely to be perceived to as such in the future. Bass (1985) suggested that because path-goal theory is based on expectancy theory, it is limited to a cost-benefit analysis approach to leadership. In the context of organizations, this is
taken to mean that subordinates increase performance and effort when the potential benefits are
eough to outweigh the costs of their increased effort. As will be seen later, moving followers
beyond a cost-benefit analysis is considered to be a hallmark of transformational leadership
(Bass, 1985; Burns, 1978).

Decision-making theory (Vroom & Yetton, 1978) dealt with a relatively small part of the
leadership behavior domain. The model prescribed the correct amount of input to seek from
subordinates in decision-making, based upon a series of situational characteristics. In an
exchange of letters with Sternberg, Vroom described decision-making theory as a situation-based
model of leadership (Sternberg & Vroom, 2000). Although the theory deals with a narrow part of
leadership, the emphasis on specific behaviors is seen as positive (Yukl & VanFleet, 1992).
Conclusions drawn from studies examining normative decision theory have generally supported
the theory framework (Vroom & Jago, 1988).

The majority of leadership theories have concentrated solely on the leader. LMX (Graen
& Cashman, 1975) is different from other leadership theories in that the relationships between
leaders and followers are expected to vary. LMX tackled the “problem of the group,” as the
theory posited that leaders treat each follower differently. That is, some dyads of a leader and
follower are “high quality” while others are of “low quality.” The quality of the LMX
relationship is expected to correlate with a variety of work outcomes. In a meta-analysis of LMX
studies, quality of LMX was found to be related to a number of organizational variables,
including satisfaction with the supervisor and overall job satisfaction (Gerstner & Day, 1997).

The current study adopts the contingency approach, in that the effectiveness of leadership
behaviors is expected to vary by the characteristics of followers. The leadership behaviors of
interest are transactional and transformational, as first defined by Burns (1978) and later
expanded upon by Bass (1985). The following sections detail this “new leadership” theory and hypothesize specific moderated and mediated relationships between the behaviors and work outcomes.

New Leadership Theories

Following research and theories detailing a contingency or situational approach to leadership, a number of “new leadership” theories were proposed. By far, the leadership theory first proposed by Burns (1978) and later expanded on and refined by Bass (1985) has been the dominant research paradigm since their introduction (Avolio, 2007). Both authors drew a distinction between transactional and transformational leadership behaviors. Prior to this distinction, leadership theory and research had been primarily concerned with short-term behavior changes in followers. This previous era of research can be contrasted with the emphasis on long-lasting behavior, attitude, and value change in followers that typifies transformational leadership theory. The current study is concerned about the differences between the two styles and suggests that the effectiveness of these leadership behaviors vary by characteristics of the follower.

Transactional Leadership

Transactional leadership operates primarily in line with a behavior-reward paradigm, where the relationship between leaders and followers is based upon the exchange of effort and production from the worker for salient rewards (e.g., pay, benefits) from the leader or organization. In the political context where Burns first formulated the distinction, transactional political leaders exhibited behaviors such as exchanging favors and incentives for votes. Without the promise of some kind of exchange, it is unlikely that the follower would provide the same amount of effort or production. Bass (1985) described the three main behaviors of effective
Transactional leaders saying they “recognize what it is we (followers) want to get from our work and try to see that we get what we want if our performance warrants it, exchange rewards and promises for our effort, and are responsive to our immediate self-interests if they can be met by getting the work done” (p. 11). From the perspective of the follower, it is clear how a favorable cost-benefit analysis is important to a leader’s impact. As noted in Avolio and Bass (2004), the idea of transactional leadership closely followed the distinction between managers and leaders (Zalesnik, 1977).

Bass (1985) identified two dimensions of transactional leadership: management by exception and contingent reward. Contingent reward is the extent to which leaders reward subordinates only when a certain level of effort or production is reached. Management by exception is defined by proactively intervening when it appears that something could potentially go wrong. Both of these dimensions reflect the nature of transactional leadership as defined by Bass (1985) and Burns (1978). The behaviors associated with transactional leadership can also be seen in early schools of management theory, such as scientific management (Taylor, 1919). Scientific management focused on optimizing the efficiency of workers by changing aspects of the work, including rewards and compensation.

Transformational Leadership

Leaders exhibiting transformational behaviors move followers beyond the cost-benefit relationship that typifies a transactional leadership. Transformational leadership involves empowering followers to be change agents within the organization and evokes performance and effort beyond what is elicited from a transactional relationship (Bass, 1985). Transformational leaderships are intellectually stimulating and help to facilitate rational thinking and problem-solving in the follower. Under transformational leadership, followers put the goals and values of
the organization ahead of their own (Shamir, House, & Arthur, 1992). Followers are motivated not through the promise of an extrinsic reward but through identification with the inspirational vision laid out by the leader. This concept is related to Weber’s (1947) writing on charismatic leaders. Like Burns (1978) and Bass (1985), Weber suggested that people follow charismatic leaders because they have a personal trust in the leader and his or her vision.

In his original formulation, Bass’ (1985) factor structure included four transformational leadership factors; charisma, inspirational motivation, intellectual stimulation, and individual consideration. The charisma dimension has subsequently come to be known as idealized influence. Idealized influence is defined as the extent to which the leader behaves in a way that allows the follower to identify with the leader. The key aspect of inspirational motivation is the effective communication of a vision to followers. Though the original charisma dimension has become known as idealized influence, charisma in the current literature is typically defined as a combination of the idealized influence and inspirational motivation dimensions (House & Shamir, 1993). House and Shamir (1993) emphasized charismatic leadership (a combination of inspirational motivation and idealized influence) over intellectual stimulation and individual consideration. On this point, they differ from other transformational leadership theorists (e.g., Bass, 1985; Bass & Avolio, 1993), who generally consider all four dimensions to be key components of the construct. Transformational leaders are intellectually stimulating; they solicit ideas and comments from subordinates and encourage their creativity. Finally, transformational leaders demonstrate individual consideration, in that they demonstrate concern for employees on an individual basis. Some theorists have suggested that this dimension is synonymous with the consideration and employee-centered behaviors defined in studies at Ohio State and Michigan in the 1950’s (House & Podsakoff, 1994). Bass and Avolio (1993) have argued that the
“individualized” part of the term sets their dimension apart from consideration, in that leaders who exhibit individualized consideration behaviors are concerned both with the development of followers and giving personal attention.

Although their seminal writings are often considered together, Bass’ (1985) writings on transformational and transactional leadership behaviors differed from Burns (1978) in two main areas. First and most importantly, Burns (1978) posited that transactional and transformational leadership existed on opposite ends of the same dimension. After reviewing factor analyses, Bass (1985) suggested that the styles existed on two separate dimensions and that the most effective leaders exhibited behavioral characteristics of either style. For example, John F. Kennedy and Franklin D. Roosevelt demonstrated transactional leadership behaviors (such as trading favors for votes and rewarding those close to them) and also were inspirational leaders during times of national crisis (Bass, 1999). This difference echoes the sharpest point of contrast in the early Ohio State and Michigan studies. Secondly, Burns (1978) held that leadership must be “good.” That is, by definition effective leadership is an uplifting experience for followers. For Bass (1985), a person exhibiting morally reprehensible behaviors is still a transformational leader if the attitudes and values of their followers have been transformed.

Some authors have investigated this potential “dark side” of transformational leadership (e.g., Brown & Trevino, 2006; Conger, 1993). Specifically, Conger (1993) suggested that transformational leaders could abuse their influence with followers, leading them to act in a fashion that goes against their own values. Especially visionary leaders may be prone to unrealistic expectations about their vision and may become too single-minded in their pursuit of a vision. They also may be prone to using all of an organization’s resources in this pursuit (the “Pyrrhic victor”). Finally, they may divide followers into an in-group who “gets it” and an out-
group who does not. Effective transformational leadership includes making all subordinates feel like they are part of an in-group. Most research has demonstrated that the outcomes of transformational leadership are positive. For example, subordinates of a charismatic leader exhibit less instances of both interpersonal and organizational deviance, as well as an increased perception of value congruence with the leader (Brown & Trevino, 2006). The literature detailing the relationship between transformational leadership behaviors and positive work outcomes will be discussed in later sections.

In trying to understand transformational leadership, a number of studies have investigated how personality characteristics are related to charismatic and transformational leadership behaviors (e.g., Bono & Judge, 2003). The Big Five constructs (neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness) are not effective in accounting for variance in transformational leadership behaviors. Together, they account for roughly ten percent of the variance in charismatic leadership behavior, with extraversion being the single best predictor ($r = .24$) (Bono & Judge, 2003). Charismatic leadership is considered to be a subset of the transformational leadership construct (Bryman, 1992). The finding of a positive main effect for extraversion was replicated by a later study (Lim & Ployhart, 2004). These correlations are typically smaller than those found in studies correlating personality with leadership effectiveness and emergence (e.g., Judge, Erez, Bono, & Thoresen, 2002). Additionally, narrower personality traits may be better predictors and that less variance in transformational leadership behaviors is accounted for by personality traits than the variance that could be accounted for by traits in leader emergence or effectiveness (Bono & Judge, 2004). Leader agreeableness and neuroticism were also found to have significant negative main effects on transformational leadership behaviors.
Personality may be related to the effectiveness of leadership behaviors, but they do not necessarily inform us as to how or why particular leader behaviors impact followers. Developing an understanding the mechanisms through which transformational leadership behavior impact work outcomes is crucial. To that end, House, Shamir and colleagues (Dvir & Shamir, 2004; House & Shamir, 1993; Shamir et al., 1992) proposed a theory of transformational leadership that tied path-goal theory (House, 1971) and self-concept theory with transformational leadership behaviors. Specifically, they proposed that transformational leaders are most effective when they can align a follower’s self-concepts with an inspirational vision. In doing so, the leader ties the follower’s self-concept to group or organizational goals, resulting in increased follower effort and performance as they attempt to maintain their own self-concept. President John F. Kennedy’s urging to “ask not what your country can do for you, but what you can do for your country” illustrates how effective transformational leaders motivate followers to place group or organizational goals above their own interests. House and Shamir (1993) also suggested that a leader’s vision is not subject to change. That is, the leader possesses and communicates a vision to followers but does not adapt it to fit the followers. This point is essential to the current study; one goal of this paper is to examine how the affect-based trust in the leader (and by extension, the leader’s vision) that is developed by transformational leaders impacts follower-level work outcomes. If transformational leaders do not adapt their vision to fit their followers, they must develop affect-based trust between them and the followers to facilitate their acceptance of the vision.

In a similar vein, Haslam and Platow (2001) examined potential ways in which transformational leadership behaviors impact followers. Specifically, they suggested that followers derive inspiration from leaders who increase their social identity. Social identity is
defined as an individual’s social self (a feeling of “we”) as opposed to their personal self (a feeling of “I”). According to Haslam and Platow (2001), inspirational leaders are those who seem to support in-group members and reinforce the implication that “we are better than them” (p. 1471). These hypotheses were supported in their study, showing that leaders received most support from followers when they explicitly rewarded in-group members over out-group members. Haslam and Platow (2001) concluded that followership was best predicted by an affirmation of follower’s social identity. They would suggest that the inspirational motivation component of transformational leadership works in a similar fashion. In this model, an increase in a follower’s social identity is an important mechanism through which transformational leadership impacts followers. Extending this line of thinking to the current study, the moderating hypotheses test the assertion that followers with unfavorable core self-evaluations would be more likely to have their social identity altered by a leader’s transformational behavior than followers with favorable core self-evaluations. The mediating hypotheses test the assertion that in order for this change in a follower’s self-identity to occur, transformational leadership behaviors must have created an affect-based trust in the leader.

The current research builds upon House and Shamir’s (1993) theory of transformational leadership by addressing a gap in the literature regarding how a follower’s personal characteristics impact their receptivity to transformational leadership behaviors. In the context of House and Shamir’s (1993) model, individuals with high core self-evaluation already view themselves and their abilities favorably, and thus the effect of transformational leadership behaviors may not be as great as it is for individuals with relatively unfavorable core self-evaluations.
Parallel Lines of Research

Given the popularity of transformational leadership, it is not surprising that several parallel lines of inquiry have also gained favor among researchers. Transformational leadership theorists differ from charismatic leadership theorists primarily in the breadth of their emphasis. The full spectrum of transformational leadership also includes the intellectual stimulation and individualized consideration dimensions (Avolio & Bass, 2004), whereas the charismatic perspective focuses only on the idealized influence and inspirational motivation dimensions. Despite these conceptual differences, the literature is largely congruent and the effects on work outcomes for both are similar (Judge & Piccolo, 2004; Shamir et al., 1992).

In addition to charismatic leadership, Pygmalion Leadership Style (PLS; Eden, 1990, 1992) has also received attention in the literature. PLS is based on the Pygmalion effect, the result of a famous study demonstrating that teacher expectations have a large impact on student performance than student ability (Rosenthal & Jacobson, 1968). Livingston (1969) suggested that a similar effect might be seen in organizations with managers and their subordinates. In addition to the Pygmalion effect, researchers have documented the Galatea effect (subordinate, rather than manager expectations lead to higher subordinate performance) and the Golem effect (low manager expectations lead to decreased subordinate performance). A recent meta-analysis (Kierein & Gold, 2000) demonstrated that the Pygmalion effect seems to exist in organizations (an average $d$ of .81). Despite this strong finding, White and Locke (2000) suggested many potential limitations to the application of PLS in organizations; the gender of the leader appears to have an impact on subordinate performance, it may not be ethical to use deceptive tactics in an organization, Pygmalion effects are subconscious, and most attempts to train managers to be Pygmals have been unsuccessful (Eden et al., 2000). The question of gender as a moderator of
the Pygmalion effect has been examined. Lees-Hotton (1999) found that female leaders could be Pygmalions although the effect sizes for women were not as large as for men.

The PLS research is pertinent to the current discussion in that a PLS is conceptually similar to transformational leadership. Leaders using a PLS support, encourage, and attempt to develop the self-efficacy of their subordinates through reinforcement of the high expectations they have for their subordinates. From a theoretical perspective, part of transformational leadership is raising the self-expectations of followers. A by-product of this is likely to be increased subordinate performance and satisfaction. To the extent that the Pygmalion effect is present in organizations, the current study examines how this effect may vary as a function of follower core self-evaluation and affect-based trust in the leader. From a theoretical standpoint, PLS is subsumed by transformational leadership (White & Locke, 2000). Thus, the current study does not investigate PLS directly.

Theoretical Debate

A number of theoretical debates have arisen as transformational leadership has become the primary research model (see Bass & Avolio, 1993 for a discussion). Researchers have differed regarding how transformational leadership and transactional leadership are related to each other (Judge & Piccolo, 2004). Some researchers favor a phenomenon termed “augmentation,” where transformational leadership behaviors build upon a base provided by transactional leadership (Avolio, 1999). Bass (1995) agreed, suggesting that transformational leadership cannot substitute for transactional leadership. Others go further, arguing that though transformational leadership builds upon transactional leadership, transactional leadership adds nothing beyond transformational leadership (Bycio, Hackett, & Allen, 1995). Meta-analytic investigations have demonstrated that transformational leadership behaviors showed slightly
higher average correlations with outcomes (such as follower job satisfaction, satisfaction with leader, motivation, group performance) than transactional leadership behaviors (Judge & Piccolo, 2004). High intercorrelations between transactional and transformational leadership behaviors have made it difficult to examine the effects of transformational leadership behaviors when controlling for transactional and laissez-faire leadership behaviors. Transformational leadership behaviors have been found to significantly impact work outcomes after controlling for transactional and laissez-faire leadership (Judge & Piccolo, 2004).

The actual structure of the eight dimensions suggested by Bass (1985) has been a source of great debate (Avolio, Bass, & Jung, 1999). The four transformational leadership dimensions are typically highly intercorrelated (Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996). Accordingly, the independence of the dimensions has been questioned by some researchers. Research has also suggested that there may be differences between the idealized charismatic (influence) behaviors and idealized charismatic attributions (Bass & Avolio, 1993, 1994). The current version of the instrument used to measure these constructs, the Multifactor Leadership Questionnaire (MLQ Form 5X; Avolio & Bass, 2004) has items relating to each. Factor structure research has also suggested that the idealized influence and inspirational motivation scales should be combined (Bycio et al., 1995).

The management by exception dimension has undergone revisions as well. Currently, a difference is recognized between management by exception-active and management by exception-passive (Avolio & Bass, 2004). Management by exception-active is the extent to which the leader is focused primarily on problems but is proactive in trying to identify them. Management by exception-passive is the extent to which the leader intervenes only when performance drops below a certain level. These dimensions are also associated with different
leadership styles. Management by exception-active remained a facet of transformational leadership, and management by exception-passive is a facet of laissez-faire leadership.

Operating from a large dataset of 4,000 leadership ratings, Avolio et al. (1999) found evidence of a six-factor solution (idealized influence and inspirational motivation were combined, as were the laissez-faire and management by exception-passive dimensions). The current version of the MLQ specifies nine factors with acceptable internal consistency estimates (Avolio & Bass, 2004); idealized influence-attributed, idealized influence-behavior, inspirational motivation, intellectual stimulation, individual consideration, management by exception-active, contingent reward, management by exception-passive, and laissez-faire. The current version of the MLQ recognizes the first five factors in the list above as encompassing transformational leadership behaviors, the sixth and seventh factors as transactional leadership behaviors, and the eighth and ninth factors as laissez-faire leadership behaviors.

*Outcomes of Transactional and Transformational Leadership*

Transactional and transformational leadership behaviors have demonstrated significant direct effects on a variety of work outcomes, including job satisfaction, satisfaction with the leader, perceptions of core job characteristics, and organizational citizenship behaviors. The main emphasis of the current study is identifying follower characteristics that may impact these direct effects. Prior to doing so, the literature documenting a direct relationship will be reviewed.

As suggested in Locke’s (1976) definition, job satisfaction can be derived from how an individual feels about their own job or job experiences. A direct supervisor or manager likely has a significant impact on one’s job experiences. Thus, one could reasonably hypothesize that transformational leadership behaviors lead to increased follower job satisfaction. For example, communicating an inspirational vision to followers may increase the sense of fulfillment they
take from their daily work activities. Transactional leadership behaviors are also likely to promote job satisfaction in followers. To the extent that transactional leaders fulfill the expectation of their subordinates in terms of dispensing rewards for behavior, followers will be satisfied with their job.

A more specific facet of job satisfaction, satisfaction with the leader, is also theoretically important. One might suggest that the relationship between leadership behaviors and satisfaction with the leader would be stronger than the relationship between the same behaviors and overall job satisfaction. A stronger correlation for the former relationship could be because the hypothesized cause and target of the attitude are the same. The current study includes both overall job satisfaction and satisfaction of the leader as potential outcomes of transformational leadership behaviors that are moderated and mediated by personal characteristics of the follower.

In the largest multi-study analysis of the validities of transactional and transformational leadership behavior, Judge and Piccolo (2004) meta-analyzed the direct effects of each leadership style of both follower global job satisfaction and satisfaction with the leader. Both transformational leadership ($\rho = .58$) and contingent reward ($\rho = .64$) had strong relationships with overall follower job satisfaction. In addition, both have strong correlations with follower satisfaction with the leader, $\rho = .71$ and $\rho = .55$, respectively (Judge & Piccolo, 2004). More importantly, the differences in magnitude between transformational and contingent reward behaviors were statistically significant.

The finding that contingent reward behaviors account for significantly more variance in overall satisfaction than transformational leadership behaviors is interesting. Research has demonstrated that follower overall job satisfaction may be stable (Dormann & Zapf, 2001; Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002; Staw & Ross, 1985), potentially has a
genetic base (Arvey, Bouchard, Segal, & Abraham, 1989) and is therefore may be less susceptible to the influence of a transformational leader. Other research has suggested that though an individual’s job satisfaction may return to its previous level after an intervention, it is possible for job satisfaction to be elevated by outside influences (Griffin, 1991). It is this malleable aspect of job performance that is of interest as an outcome of leadership behaviors in the current study.

A difference also exists in the relative validities pertaining to satisfaction with the leader. Transformational leadership behaviors are significantly more related to satisfaction with the leader than contingent reward behaviors. This may suggest that although contingent reward behaviors are important, followers seek something beyond a transactional relationship with a leader. Such a finding seems to support the augmentation hypothesis suggested earlier (Bass, 1999, Judge & Piccolo, 2004).

The Job Characteristics Model (JCM; Hackman & Oldham, 1976) is one of the most well-researched and supported theories of job satisfaction, both domestically (Fried & Ferris, 1987; Loher, Noe, Moeller, & Fitzgerald, 1985) and cross-culturally (see Judge, Parker, Colbert, Heller, & Ilies, 2002 for a review). The JCM holds that core job characteristics (task significance, task identity, skill variety, feedback, and autonomy) influence three critical psychological states (knowledge of meaningful of the work, knowledge of results, and knowledge of control over the work). A motivating potential score (MPS) is derived from the presence or absence of the core job characteristics. A high MPS is hypothesized to lead to positive work outcomes, such as job satisfaction, reduced turnover and increased task performance (Hackman & Oldham, 1976).
Recent research has examined the extent to which transformational leaders are able to boost perceptions of the five core job characteristics among followers (Piccolo & Colquitt, 2006; Purvanova, Bono, & Dziewczynski, 2006). Making work more meaningful may be one way in which transformational leaders positively impact their followers (Purvanova et al., 2006). By adopting organizational goals as their own, followers’ perceptions of the meaningfulness of their work are increased. If increasing the meaningfulness of work is an important mechanism for the effects of transformational leadership, it should mediate transformational leadership effects on work outcomes, such as organizational citizenship behaviors. Both studies (Piccolo & Colquitt, 2006; Purvanova et al., 2006) tested and found support for this model. This finding is particularly interesting because actual and perceived core job characteristics are typically closely related (Fried & Ferris, 1987). Transformational leaders do not change the actual task significance of a particular job; but they do appear to be capable of changing the perception of task significance.

Social information processing (Salancik & Pfeffer, 1977; 1978) is one theory that can help to explain this result. Social information processing holds that the social context is an important factor in the formation of work-related appraisals. Transformational leadership behaviors provide a social context from which followers infer greater core job characteristics.

Organizational citizenship behaviors (OCB; Smith, Organ, & Near, 1983) are often described as behaviors that are beneficial to organization but are not explicitly part of an employee’s job description. A similar construct, termed contextual performance (Borman & Motowidlo, 1993), has a great deal of conceptual overlap with the OCB construct. This “extra-role” performance is different from task performance, and managers are capable of separating the two dimensions of performance (Barksdale & Werner, 2001). Transformational leadership behaviors are associated with increased organizational citizenship behaviors by their followers.
(Fuller, Patterson, Hester, & Stringer, 1996; Organ & Ryan, 1995; Podsakoff, MacKenzie, & Bommer, 1996b; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Aspects of transformational leadership, such as inspirational motivation and communicating a vision, help to make organizational values and missions clear to followers (Bass, 1985) and align followers’ goals and objectives with those of the organization. When this alignment occurs, followers are more likely to act in a way that benefits the work environment (Podsakoff et al., 1990). The effect is stronger for transformational leadership behaviors because those specific behaviors precipitate identification with the organization and the leader to greater extent than do behaviors associated with transactional leadership.

Though the examination of direct effects of leadership behaviors on work outcomes are not the primary focus of the current study, an examination of them is necessary for building the foundation for the moderated and mediated hypotheses. To that end, direct effects consistent with previous research are expected in the current study.

Hypothesis 1 - Transactional leadership will be positively related to follower job satisfaction and follower satisfaction with the leader.

Hypothesis 2 - Transformational leadership will be positively related to follower job satisfaction, follower satisfaction with the leader, follower perceptions of job core characteristics, and follower organizational citizenship behaviors.

Factors Impacting the Direct Effects of Leadership

The current study seeks to examine the extent to which the effects of transformational leadership behaviors are impacted by follower characteristics. Kerr and Jermier’s (1978) model
statement regarding substitutes and neutralizers of leadership posited several subordinate, task, and organizational variables that could impact the effectiveness of leadership behaviors. Kerr and Jermier’s (1978) model of leadership substitutes and neutralizers are of primary interest for the hypotheses tested in the current study. Kerr and Jermier’s model held that certain variables could either take the place of leadership (substitutes) or be so disruptive as to make leadership irrelevant (neutralizers). These variables could be either characteristics of the subordinate (indifference to organizational rewards, need for independence, professional orientation, ability/experience/knowledge), characteristics of the task (methodologically invariant, intrinsically satisfying, provides own feedback, unambiguous/routine) or characteristics of the organization (formalization, highly specified functions, cohesive work group, spatial distance between the leader and subordinate, cohesive work group, organizational rewards not within the control of the leader).

Five possible theoretical models were suggested (see Figure 2) by Kerr and Jermier (1978). First, the leadership-only model was characterized as containing only the direct effect of a leader on a follower-based work outcome. For example, the Ohio State studies focused on the extent to which individual consideration impacted the follower. The second model proposed by Kerr and Jermier is similar, except that the focus is on how the proposed substitutes and neutralizers have a direct effect on the follower. A study examining the direct relationship between tasks that provide their own feedback and follower job satisfaction would fit into this model. A third model, termed the joint effects model, posited that both the leader and substitute could have independent impacts on an outcome. This model would be supported by a situation in which both individual consideration and task feedback have effects on a work outcome when controlling for the other. A fourth model suggests that substitutes could mediate the relationship
between leaders and outcomes. For example, transformational leadership behaviors may increase trust in a leader, which then impacts work outcomes. Finally, the fifth model suggested the moderator model, by which the impact of the leader on an outcome varied as function of the substitute. For example, transformational leadership behaviors may be more effective if followers have low core self-evaluation.

After noting that the two statistical relationships were often confused and used interchangeably in the literature, Baron and Kenny (1986) drew important distinctions between moderator and mediator variables. Moderators “partition a focal independent variable into subgroups that establish domains of maximal effectiveness in regard to a given dependent variable” (p. 1173) and mediator variables “represent the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest” (p. 1173). In the context of leadership research, moderation hypotheses are most appropriate when the variable posited to impact the relationship is unlikely to be changed by acts of the leader. For example, personality traits of the follower may have an impact on the effectiveness of leadership behaviors but are unlikely to change as a result of leadership behavior or style. Mediated relationships may be more appropriate if it is possible that acts of the leader can increase or change the construct in question. For example, researchers have examined the extent to which perceptions of core job characteristics may be changed by transformational leadership behaviors (Piccolo & Colquitt, 2006; Purvanova et al., 2006), which in turn impacts job satisfaction.

The majority of the research into Kerr and Jermier’s theory has utilized the moderator model (Dionne, Yammarino, Atwater, & James, 2002). Meta-analytic investigations (e.g., Podsakoff, MacKenzie, & Bommer, 1996a) of the moderator model have not been supportive and instead have supported a joint effects model. This meta-analysis focused on leadership
behaviors typically associated with transactional leadership, such as contingent reward behavior and contingent punishment behavior, and path-goal behaviors, such as leader clarification and specification of procedures. Substitutes tested included 12 of the 14 moderators suggested by Kerr and Jermier (1978). Outcomes encompassed various facets of satisfaction (general, work, supervisory, pay, advancement), organizational commitment, and role ambiguity/role conflict.

In a theoretical exchange of letters with Howell and Villa, Dionne and Yammarino (Dionne, Yammarino, Howell, & Villa, 2005) posited that this is due to poor study methodology (e.g., single-source data) and inclusion of moderators for which there was not solid theoretical grounding. In addition, they suggested that the substitute literature has ignored the joint effects and mediator models that Jermier and Kerr (1997) found more interesting.

A second, large single-sample study by the same authors (Podsakoff, MacKenzie, & Bommer, 1996b) addressed a similar research question, but focused on the extent to which transformational leadership behaviors were moderated by the substitutes suggested by Kerr and Jermier (1978). A total of six leader behaviors, 13 moderators, and 11 outcomes were evaluated. Testing of the direct effects on criterion variables demonstrated that both leader behaviors and substitutes had unique effects (Podsakoff et al., 1996b), again supporting the joint effects model. For the moderator model, the pattern of findings for this study was similar to Podsakoff et al. (1996a), in that the model was not upheld. Of a possible 858 interactions, only eight percent (69 interactions) were significant. This is only slightly higher than the number of significant interactions expected from chance alone.

Though not referring specifically to this article, this type of “everything but the kitchen sink” moderator analysis has been criticized (Dionne et al., 2004). If the moderating relationship being tested is not theoretically based, it would be unreasonable to expect a moderating
relationship to be present. In addition, it is possible that some moderators influence the
effectiveness of leadership behaviors on some outcomes and not others (Dionne et al., 2004).
This problem is compounded by the predominant model by which group level outcomes are
examined with individual-level perceptions of leader behaviors and substitutes. The current study
seeks to add to the existing substitute research by examining new moderators and mediators of
transformational leadership behaviors. In addition, the study seeks to address the lack of research
regarding the extent to which the effectiveness of transformational leadership behaviors is
moderated by follower characteristics (Avolio, 2007).

The moderator-model has not been supported in the transactional leadership or
transformational leadership research (Podsakoff et al., 1996a; 1996b). This begs the question,
why would a moderator-model exist for different follower characteristics aside from those
proposed by Kerr and Jermier (1978)? In summarizing their research, Podsakoff and his
colleagues stated that an overly narrow set of follower characteristics may be a reason for the
lack of support for the moderator model. The current study represents an attempt to broaden the
scope of follower characteristics.

In addition, the current study posits that mediated relationship may exist as well.
Consistent with the definition given by Baron and Kenny (1986), these hypotheses seek to
determine the mechanisms through with transformational leadership behaviors impact followers.
The mediator model has also been subjugated by the moderator model, although it was
considered equally as important (Jermier & Kerr, 1997).

**Past Research on Follower Characteristics**

Aside from the set of follower characteristics proposed by Kerr and Jermier (1978),
follower characteristics have not been widely investigated as potential moderators of
transformational leadership behavior (Avolio, 2007; Grint, 2000). In discussing how to promote integrative strategies in leadership research, Avolio (2007) examined the transformational leadership research for studies that examined follower characteristics as moderators in the relationship between transformational leadership and work outcomes. Only three studies were identified that met these criteria (Dvir & Shamir, 2003; Ehrhart & Klein, 2001; Wofford, Whittington, & Goodwin, 2001). Some may suggest that LMX could be classified in this category, but the focus in LMX and vertical dyadic linkage research is on the relationship between leader and follower rather than the follower alone. Despite the relative dearth of research in the area, theorists have suggested that the role of follower traits or dispositions, particularly in transformational or charismatic leadership, is an important area of future study (Klein & House, 1995).

Ehrhart and Klein (2001) sought to determine why some followers develop deep relationships with their leaders than others. As noted by Avolio (2007), this study challenges the general assumption that followers are relatively passive and merely “receive” leadership. Their results indicate that followers differ extensively in their leadership style preference. Follower values and characteristics helped to determine leadership style preference. This preference was found to be based in part on followers with strong work participation values tend to be drawn to charismatic leaders, those who value extrinsic rewards are drawn to relationship-oriented leaders (Ehrhart & Klein, 2001). Ehrhart and Klein (2001) suggested that a “match” between leaders and followers would lead to increase follower satisfaction with the leader. These findings are relevant to the current study in that they demonstrate that follower personal characteristics can impact leadership preference and effectiveness.
Whereas traditional leadership research has considered the follower to be a function of the leadership style or situation, recent research has began to consider the follower side of the leadership equation. Researchers have noted that the majority of the literature involving followers has involved an examination of follower behaviors (Dvir & Shamir, 2003). Dvir and Shamir (2003) examined ways in which followers shape the type of behaviors they get from their leaders. Follower developmental characteristics (operationalized as self-actualization needs, internalization of the organization’s moral values, collectivistic orientation, critical-independent approach, active engagement in the task, and self-efficacy) were assessed as variables predicting transformational leadership. This study, using an Israeli military sample, was unique in that it treated aspects of the follower as independent variables and treated transformational leadership as an outcome. In addition, the relationship between leader and follower (e.g., direct report vs. indirect report) was examined as a moderator. The results supported the moderator hypothesis, such that follower developmental levels were positively related to transformational leadership behaviors among indirect followers and negatively related for direct followers. Although the current study examines transformational leadership as the independent variable, Dvir and Shamir (2003) illustrated that moderating relationships are possible in the transformational leadership context.

In their review of research examining situational moderators of transformational leadership behaviors, Wofford et al. (2001) discussed a study that examined support for innovation as a moderator of group performance (Howell & Avolio, 1993). Interestingly, a positive moderating effect for the individualized consideration and intellectual stimulation dimensions and a negative moderating effect for charisma (inspirational motivation and idealized influence) were found. In their own study, Wofford et al. (2001) found that perceptions of the
effectiveness of transformational leadership behavior was moderated by follower growth need strength, such that high-GNS followers rated the transformational leadership as more effective than did low-GNS followers. The present investigation expands these three studies by suggesting specific personal characteristics that influence the leadership behavior effectiveness. The following sections detail the literature associated with each personal characteristic.

**Follower Characteristics in the Present Study**

Two studies have examined the extent to which the personal characteristics originally suggested by Kerr and Jermier (1978) influence the effectiveness of transformational and transactional leadership behaviors on follower-level work outcomes (Podsakoff et al., 1996a; 1996b). An investigation of follower characteristics has not been prevalent and is essential for forming a comprehensive model of leader effectiveness (Avolio, 2007). Such an investigation should be based on an explanation of the theoretical rationale for expecting a moderating or mediating relationship (Dionne et al., 2004; Yukl & VanFleet, 1992). The following section introduces two personal characteristics, one stable (follower core self-evaluation) and one created by leadership behaviors (affect-based trust in leadership) as two potential factors that influence transformational leadership behaviors effectiveness. Consistent with the models suggested by Kerr and Jermier (1978), both moderated and mediated relationships will be hypothesized. This research also helps to meet the need for further examination of follower characteristics as factors influencing the effects transformational leadership behaviors on work outcomes.

**Core Self-Evaluation.**

*Definition.* The core self-evaluation construct (CSE; Judge, Locke, & Dunham, 1997) is comprised of four core traits: emotional stability, self-esteem, generalized self-efficacy, and
locus of control. More specifically, the construct is defined as the common variance shared by
the four core traits. Together these traits are thought to represent “bottom-line evaluations” that
people make about their worthiness, competence, and capabilities (Judge, Bono, Erez, & Locke,
2005). Core self-evaluation is best thought of as a latent construct that manifests itself in the four
traits or behavioral consistencies discussed above (Judge et al., 2003). Core self-evaluations can
be differentiated from core external evaluations, in that core self-evaluations are self-appraisals;
external core evaluations are fundamental and global “appraisals individuals make about their
environment” (Judge, Locke, Durham, & Kluger, 1998, p. 20). Initially, locus of control was not
included in the core self-evaluation construct. However, Judge et al. (1997) suggested that locus
of control may be appropriate to add to the construct. Thus, most researchers since have included
locus of control as part of the larger construct (Judge et al., 2004). Judge and his colleagues
(1997) suggested that the four traits share three common themes. First, they are self-evaluative
(meaning they refer to feelings individuals have about themselves as opposed to others). Second,
they are fundamental, meaning the traits are not specific to a particular situation. Finally, the core
traits are all broad in scope.

Emotional stability is generally considered to be an antonym for neuroticism, as the
construct is occasionally called within the Five Factor Model (FFM) framework. Individuals who
are low in emotional stability tend to “focus differentially on negative aspects of themselves,
other people, and the world in general” (Watson, 2000, p. 17). Similarly, lack of depression,
hostility, anxiety, and personal insecurity are typical hallmarks of high emotional stability
(Barrick, Mount, & Judge, 2001). Along with conscientiousness, Barrick et al. (2001) found that
emotional stability is a valid predictor of job performance across virtually all professions.
Emotional stability is correlated also with job satisfaction, with an estimated correlation of 0.29 (Judge, Heller, & Mount, 2002).

Self-esteem can be considered as the “favorability of individuals’ characteristic self-evaluations” (Brockner, 1988, p. 11). The construct is typically considered to be global (rather than task-specific) and a stable personality trait (Rosenberg, 1965). Self-esteem is generally considered to be the core trait at the center of the core self-evaluation construct (Bono & Judge, 2003; Judge, Van Vianen, & De Pater, 2004). Locke, McClear, and Knight (1996) defined self-efficacy as the extent to which individuals believe themselves to be capable of handling life’s challenges.

Locus of control reflects how individuals evaluate the causal relationship between their actions and associated outcomes (Rotter, 1966). Individuals with an external locus of control tend to believe that their own personal actions are not causing the outcomes around them. Seeing and believing a connection exists between their behaviors and outcomes are a characteristic of individuals with internal locus of control. Individuals with a high core self-evaluation have an internal locus of control.

Prior to the emergence of the CSE construct, a significant amount of literature was present for each trait independently. By capturing the shared variance between the traits, Judge and his colleagues theorized that a more robust set of outcomes could be predicted (Judge et al., 2004). Judge and Bono (2001) meta-analyzed previous research looking at relationships between each of the four core traits and job satisfaction and job performance and concluded that each trait has significant relationships with both outcomes. A multi-faceted construct, such as core self-evaluation, may be better able to predict work outcomes than individual facets alone (Judge et al., 2004). This emphasis on a multivariate approach to predicting work criteria has also been
Structure of the Construct. Several factor analytic studies have undertaken an examination of the factor structure underlying the CSE construct (Erez & Judge, 2001; Judge, Bono, & Locke, 2000; Judge, Erez, Bono, & Thoresen, 2002; Judge et al., 1998). Most have concluded, through both exploratory and confirmatory factor analysis, the core traits generally load on one common factor. A meta-analysis of 127 articles found average intercorrelation of .60 among the four core traits (Judge et al., 2002). Locus of control had the lowest average intercorrelations, and also generally has the lowest loadings in factor analysis studies (Bono & Judge, 2003).

The Core Self-Evaluation Scale (CSES) was developed as a direct measure of the construct (Judge et al., 2003). Prior to the construction of this measure, researchers assessed core self-evaluation using several measures designed to measure each of the core traits in isolation. Items on the CSES were selected on the extent to which they had commonality with the other core traits. As such, the CSES as a scale measures the core self-evaluation construct directly, and as a result, has less construct-related error than single-construct containing items that do not overlap with the other traits (Judge et al., 2003).

Although much of the research surrounding CSE has been positive and suggests several important relationships with work outcomes, a significant limitation exists. Much of the supporting literature has been done in one research group (e.g., Bono & Judge, 2003; Erez & Judge, 2001; Judge et al., 1997; Judge et al., 1998; Judge et al., 2000; Judge et al., 2002; Judge et al., 2003; Judge et al., 2004). By testing core self-evaluations as a moderator, a manner in which
they have not currently been tested, the current study also contributes to the existing CSE literature.

The current study posits that follower core self-evaluation moderates the impact of transformational leadership behaviors on follower job satisfaction and satisfaction with the leader. A moderating relationship is expected because core self-evaluation is a stable, dispositional construct (Judge et al., 2003). The moderating relationship is expected to be compensatory in nature, such that the impact of transformational leadership behaviors on high-CSE followers is smaller in magnitude that the impact of those same behaviors on low-CSE followers. Research has demonstrated that transformational leadership behaviors are correlated with follower job satisfaction (Judge & Piccolo, 2004). The current study suggests that the magnitude of this relationship depends upon, in part, the core self-evaluation held by the follower. Research also indicates that high-CSE followers are likely to have higher levels of job satisfaction (Judge et al., 2003). These studies suggested that due to their high generalized self-efficacy, self-esteem, emotional stability, and internal locus of control, high-CSE individuals have high overall job satisfaction levels when compared to low-CSE individuals. On the other hand, low-CSE individuals do not feel efficacious, have low self-esteem and emotional stability, and think that their fate is out of their hands. For these people, the having a leader that clearly communicates an inspirational vision, is intellectually stimulating, and give value and purpose to the work may help to compensate for an unfavorable core self-evaluation.

Because an external locus of control is part of a low CSE, these individuals do not feel empowered to effect change in themselves or the organization that surrounds them. Transformational leadership is about changing those perceptions that individuals have about
themselves and motivating to go beyond their own expectations. The current study suggests that these behaviors are more effective in individuals who are predisposed to negative self-appraisals.

At the core of the construct, transformational leadership is about motivating and inducing the follower to go beyond their expectations (Bass, 1985). An explicitly stated goal of transformational leadership is to empower followers to affect change within their organization. Because low-CSE people have an external locus of control and are not dispositionally pre-disposed to feeling empowered, it should come as no surprise that transformational leaders are especially adept at empowering followers. This study investigated how follower characteristics play a role in determining how receptive followers are to transformational leadership behaviors. In the current study, core self-evaluation is expected to be one of these follower characteristics. Previous research has suggested that compared to followers with high core self-evaluations, followers with unfavorable core self-evaluations do not perform as well or are satisfied with the job (Judge et al., 2003). The behaviors associated with transformational leadership are especially suited for low-CSE followers. By providing a clear vision, aligning personal goals with organizational objectives and being intellectually stimulating, transformational leaders are able to promote job satisfaction in their followers. Given that low-CSE followers are more likely to have low job satisfaction to begin with, the effects of transformational leadership are likely to be stronger in them.

Another explanation for the proposed moderating relationship can be found in the idea of situational strength (Mischel, 1977). Situational strength refers to the extent to which environmental variables suppress the expression of personal characteristics. For example, the variance in individual behavior while going through airport security is constricted; all passengers act in a uniform fashion. This uniform behavior didn’t occur because people forgot how to
express themselves. Rather, the strength of the situation dictates that everyone acts in the same manner. By the same token, weak situations provide very little guidance on how individuals are supposed to act. In these cases, personal characteristics, such as personality, are expected to impact behavior to a greater extent (Hasketh & Robertson, 1993; Tett & Burnett, 2003). Though this explanation may be more supportive of transformational leadership behaviors acting as a moderator on the effect of core self-evaluation on work outcomes, the current study adopts the framework suggested by Kerr and Jermier (1978) whereby certain personal characteristics are expected to impact the effect of leadership behaviors on work outcomes.

In addition to having an impact on the relationship between transformational leadership behaviors and follower job satisfaction, follower core self-evaluation is expected to impact the relationship with satisfaction with the leader. The rationale for this hypothesis is similar to above, in that individuals with favorable CSE’s might be “predisposed” to being satisfied with either transactional or transformational leaders. Followers with unfavorable CSE’s might be more likely to have their satisfaction with the leader influenced by transformational leadership behaviors. Satisfaction with the leader and overall job satisfaction are different in that satisfaction with the leader is more variable (it is likely to change if the leader changes) whereas overall job satisfaction is more stable across jobs (Staw & Ross, 1985). A moderating hypothesis here suggests that in order to experience the benefits of transformational leadership, such as increased satisfaction with the leader, the follower must be receptive to transformational leadership behaviors. For the reasons outlined above, the current study posits that followers with unfavorable core self-evaluation are likely to have higher satisfaction with leaders who exhibit transformational leadership behaviors.
Hypothesis 3 - Follower core self-evaluation will moderate the effect of transformational leadership on follower job satisfaction, such that the effect will be stronger for followers with unfavorable core self-evaluations.

Hypothesis 4 - Follower core self-evaluation will moderate the effect of transformational leadership behaviors on follower satisfaction with the leader, such that the relationship will be stronger for followers with unfavorable core self-evaluations.

Trust in Leadership

Following previous reviews of the trust literature (e.g., Dirks & Ferrin, 2002), the current study adopts the following definition of trust: “a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, pg. 395). In terms of the “another” mentioned in the definition, the current research focuses on direct managers or supervisors in the work context. The referent is essential because trust related to different referents can have impacts on different outcomes. For example, trust in one’s direct leader has stronger relationships with job performance and satisfaction than does trust in an organization (Dirks & Ferrin, 2002). Trust can exist both from leader to follower (McAllister, 1995) and from the follower to the leader. The current study concerns with the trust that follower feels in their leader.

Distinctions have been drawn in the social-psychological literature among various types of trust (Johnson-George & Swap, 1982; Mayer, Davis, & Schooman, 1995; McAllister, 1995; Rempel, Holmes, & Zamma, 1985). Cognitive-based trust encompasses appraisals of dependability, reliability, competence and responsibility. Affective-based trust is on a more emotional level, and involves a reciprocal feeling of care and concern between the leader and
follower (McAllister, 1995). The presence of one form or trust does not guarantee the presence of another. For example, a follower may trust that a leader will reliably report for work five minutes early but not trust that their leader will demonstrate care and concern for the follower on an interpersonal level. To some extent, these differences represent an important distinction between transactional and transformational leadership. When considering how trust impacts the effects of transformational leadership behaviors, affect-based is more directly related.

Although the distinction between affect-based and cognitive-based trust has been made in the literature, the current study addresses a gap regarding how affect-based trust mediates the relationship between transformational leadership behaviors and work outcomes. In relation to transformational leadership behaviors, affect-based trust is more important because the development of affect-based trust is central to the way in which the leadership behaviors impact the job attitudes and behaviors of their followers.

Affect-based trust in the leader has not been as extensively researched as other forms of trust. A recent meta-analysis found a number of studies that explored cognitive-based trust and conducted separate analyses on this type of trust alone, but did not do the same for affect-based trust (Dirks & Ferrin, 2002). Other reviews of the trust literature have also suggested that the definition of trust utilized in the coding of Dirks and Ferrin’s (2002) meta-analysis is overly broad (Colquitt, Scott, & LePine, 2007). One aim of the current study is to specifically examine how the creation of affect-based trust leads to desirable follower outcomes. Additionally, the current study also addresses the suggestion made by some authors (e.g., Dionne et al., 2004) that mediators and moderators need to be investigated on a more specific level and that their associated effects may be specific as well. In the context of this study, when a more specific
dimension of trust in the leader (in this case, affect-based trust) is investigated, varied significance or magnitude of relationships may be found with different work outcomes.

One area where specific forms of trust may have differential impacts is analogous to the differences between transactional and transformational leadership behaviors. In a transactional relationship, a follower’s trust in the leader must only extend to a trust that the promised reward will be given for fulfillment of a specific task. This type of trust is more indicative of cognitive-based trust. Consider the example of a widget maker who is paid per gross of widgets produced. For her, trust in the leader needs only to extend to a belief that she will be paid after the gross of widgets passes inspection. This trust is primarily on the cognitive-level. That is, the widget producer draws upon her experience with the particular leader and makes a cognitive-based decision about the dependability and reliability of the leader and the rewards the leader awards to the follower. This surface-level of trust can be contrasted with the deep level of personal and affective trust that must be created for a relationship between transformational leadership behaviors (Kirkpatrick & Locke, 1996; Podsakoff et al., 1990) and follower outcomes to exist.

Previous sections discussed the value and goal changes that frequently take place in followers under effective transformational leaders. Followers internalize the goals of the organization and adopt them as their own. By internalizing the values of the organization and making them their own, the line between personal and organization gain is blurred. For this internalization to take place, leaders must have facilitated the development of an affect-based trust in the leader among their followers. The current paper suggests that transformational leadership behaviors are essential for the creation of this trust. Further, it is through this affect-based trust that followers are able to realize the personal and organizational benefits of transformational leadership.
Overall job satisfaction has been considered as an outcome of trust in leadership and satisfaction with the leader has been treated as a correlate of trust in leadership (Dirks & Ferrin, 2002). In terms of antecedents, a key component of effective transformational leadership is the development of affect-based trust in the leaders in followers (Kirkpatrick & Locke, 1996; Podsakoff et al., 1990). The extent to which trust is important for positive work attitudes has received less attention in the literature. Under transformational leadership behaviors, one reason that individuals may experience increases in satisfaction both overall and more specifically with the leader is that they feel that the values espoused by their leaders and organizations are congruent with their own.

The results of Judge and Piccolo’s (2004) meta-analysis suggested that transformational leadership behaviors are more strongly related to satisfaction with the leader than are transactional leadership behaviors. However, the mechanism through which this increase in job occurs is unclear from the literature. The current study suggests that through the development of affect-based trust with their followers, transformational leaders are able to influence job attitudes in their followers. If affect-based trust in leaders is not created by transformational leadership behaviors, it will be more unlikely that followers will have increases in positive job attitudes.

Hypothesis 5 - Affect-based trust mediates the relationship between transformational leadership behaviors and overall job satisfaction.

Hypothesis 6 - Affect-based trust mediates the relationship between transformational leadership behaviors and satisfaction with the leader.
Though a significant portion of the research on transformational leadership effectiveness has focused on task performance (e.g., Barling, Weber, & Kelloway, 1996), transformational leadership also appears to have an influence on “extra-role” performance as well. Organizational citizenship behaviors directly benefit the organization as opposed to the employee (Organ & Ryan, 1995). One reason that employees may be motivated to move beyond their own self-interests and demonstrate behaviors that benefit the organization may be an internalization or adoption of organizational goals as their own (Pillai, Schriesheim, & Williams, 1999). This process is thought to be greatly aided by transformational or charismatic leadership behaviors. House and Shamir (House & Shamir, 1993; Shamir et al., 1992) suggested that the effective communication of an inspirational vision is central to this alignment of personal and organizational goals. If this alignment has not occurred, personal goals take priority and any organizational citizenship behavior that does occur is a byproduct of a pursuit of personal goals. The current study suggests that alignment of personal and organizational goals happens through the development of affect-based trust in the leader that follows transformational leadership behaviors.

House and Shamir (1993) also noted that this vision is typically stable and must be accepted by followers without changes. In order for all of these processes to occur, the current study suggests that an affect-based trust in the leader must exist within the follower. That is, through their transformational leadership behaviors, the leader must have developed in the follower a fair that the leader has the follower’s best interest in mind.

Some previous empirical evidence has suggested that the effectiveness of leadership operates through the development of trust. Pillai et al. (1999) found indirect effects of transformational leadership on organizational citizenship behaviors through procedural justice
and trust. In terms of direct relationships with work outcomes, trust had a direct effect on organizational citizenship behaviors and non-significant effects on follower job satisfaction and organizational commitment (Pillai et al., 1999). This research on mediators reflects the fourth model (see Figure 2) suggested by Kerr and Jermier (1978). The current study builds upon this research, both by expanding this mediator model to examine job attitudes (follower overall job satisfaction and follower satisfaction with the leader) and by examining the mediating role of affect-based trust in the leader specifically.

_Hypothesis 7 -_ Affect-based trust in the leader mediates the relationship between transformational leadership behaviors and follower organizational citizenship behaviors.

Previous research has demonstrated a relationship between transformational leadership behaviors and core job characteristics (Piccolo & Colquitt, 2006; Purvanova et al., 2006). Further, perceived core job characteristics mediate the relationship between transformational leadership and work outcomes such as organizational citizenship behaviors. However, research has not examined what follower characteristics may play a role in how transformational leaders are able to increase followers’ perceptions of meaningfulness of the work (e.g., core job characteristics). As previously discussed, this relationship is hypothesized to exist because followers have internalized the goals and objectives of the organization and taken them on as their own. The current study hypothesizes that affect-based trust in the leader must be developed and present before meaningfulness of work can be created. In order for transformational leaders to be capable of framing the work in such a way that followers perceive it as meaningful, the current study is suggesting that an affect-based trust in the leader must exist.
Transformational leaders do not have to impact a position’s job characteristics directly. The JCM is focused on a person’s perception of job characteristics and their subsequent affective reaction (Taber & Taylor, 1990). Because of the affective nature of the processes posited by the JCM, it is reasonable to suggest that affect-based trust in the leader may be a necessary condition for the aforementioned affective reaction to take place. If the process by which perceived core job characteristics were more cognitive, than a type of leadership that does not involve an affective change in follower might have more impact on perceived job characteristics. However, because transformational leadership is a leadership style that involves an affective “transformation” in followers (Bass, 1985), affect-based trust in the leader, should be examined as a mechanism through which the effects of transformational leadership work.

*Hypothesis 8 - Affect-based trust in the leader mediates the relationship between transformational leadership behaviors and perceived core job characteristics.*
Method

Participants

Participants were recruited for participation from an online database of individuals who agreed to participate in online research. A number of papers using this online database have been published in leading journals (e.g., Harris, Anseel, & Lievens, in press; Judge, Ilies, & Scott, 2006; Maurer, Lippstreu, & Judge, in press; Piccolo & Colquitt, 2006; Reynolds & Ceranic, 2007; Staples & Webster, 2007). Participants who responded to the survey were entered into a random drawing for one of 13 gift certificates for fifty dollars. After the initial 2500 invitations to participate were sent out, reminder emails were sent to those who did not respond after one and two weeks. A total of 736 responses were received, a response rate of 29%. From these 736, the data were cleaned using the following criteria: participant gave informed consent to participate in the survey, participant has not submitted more than one set of responses (if multiple responses were received, only the first set of responses was used), participant provided responses to all 118 items on the survey (including demographic questions). A total of 312 participants met all of these inclusion criteria.

The sample was 54.5% male, 1.3% African-America, 16.1% Asian or Pacific Islander, 75.0% Caucasian, 1.6% Hispanic, 1.6% Native American, and 4.8% of participants classified themselves as “Other.” The participants had a variety of educational levels, as 1.3% had less than a high school degree, 20.2% had a high school degree, 10.3% had an associate’s degree, 22.4% had some college, 26.0% had a four-year college degree, 6.1% had some graduate school, 8.7% had a master’s degree, and 2.9% had an advanced degree (e.g., Ph.D., M.D.). The participants had a mean age of 37.2 years, had been with their organization for an average of 7.5 years, and had been under their current supervisor for an average of 4.7 years.
Procedure

Potential participants had previously voluntarily registered to receive invitations to participate in online research. From this population, 2500 individuals who were currently employed were sent email invitations to participate (see Appendix A for the full text of the solicitation email). Embedded in this email was a link to a third-party survey website where the study measures were hosted. As part of the survey, participants entered a pre-assigned unique ID number, which ensured anonymity but also allowed for demographic data to be matched with survey responses. Participants also gave informed consent after accessing the survey website prior to beginning the survey. The participants responded to the study measures detailed in the next section.

Measures

The Multifactor Leadership Questionnaire (MLQ; Avolio & Bass, 2004, see Appendix B), the Core Self-Evaluation Scale (CSES: Judge et al., 2003, see Appendix C), the trust in leadership scale (see Appendix D) from McAllister (1995), the overall job satisfaction subscale from the Michigan Organizational Assessment Questionnaire (MOAQ; Cammann, Fichman, Jenkins, & Klesh, 1983, see Appendix E), the satisfaction with the supervisor scale (see Appendix F) from Beehr et al. (2006), the Job Diagnostic Survey (JDS; Hackman & Oldham, 1976, see Appendix G), and an organizational citizenship behavior measure (see Appendix H) from Lee and Allen (2002) were all administered to participants. In total, participants responded to a total of 114 items (including seven experimental items that were not used as part of this study). Items from measures with the same scaling were randomized to minimize any response bias.

Demographic Questions
Participants provided demographic information regarding their race, gender, age, occupational category, employment status (part-time or full-time), and educational level (see Table 1A and Table 1B for all demographic information). In addition, participants were asked to respond to two items examining the length of time they have in their current job and the length of time they have reported to the supervisor for whom they are providing ratings. These items were “please indicate how many years you have been in your current job” and “please indicate how many years you have been reporting to your direct supervisor.”

Predictors

Participants’ perception of their supervisors leadership behaviors were assessed using the MLQ. The MLQ is a widely-used instrument for assessing leadership style (Den Hartog, Van Muijen, & Koopman, 1997). The MLQ has subscales assessing five dimensions of transformational leadership: idealized influence (attributed) idealized influence (behavior), intellectual stimulation, individual consideration, and inspirational motivation. There are also three dimensions of transactional leadership: contingent reward, management by exception - active, and management by exception - passive. Composite scales for transformational and transactional leadership are computed as the sum of the respective subscales scales divided by the number of subscales (Avolio & Bass, 2004). Finally, the MLQ has a laissez-faire leadership scale. Each subscale is comprised of four items. The MLQ also has subscales for extra effort, effectiveness, and satisfaction; these subscales were not scored or analyzed as part of this study. In total, the MLQ has 45 items, to which subjects respond on a five point Likert-scale, with responses ranging from “Not at all” to “Frequently, if not always.” Sample items include: “the person I am rating talks optimistically about the future” and “the person I am rating avoids making decisions.” Research has found internal consistency estimates (coefficient alpha) for the
transformational subscales ranging from .86 to .94 and from .69 to .90 for the transactional subscales (Tejeda, Scandura, & Pillai, 2001).

**Moderators and Mediators**

*Core self-evaluation.* The CSES was developed to capture the shared variance between the four traits that comprise core self-evaluations (Judge et al., 2003). The scale has 12 items to which participants respond on a five-point Likert scale (answers range from strongly agree to strongly disagree). An example item is “I am confident I get the success I deserve in life.” The measure has adequate internal consistency estimates ($\alpha = .84$) and test-retest reliability ($r = .81$). Further analyses by Judge et al. (2004) demonstrated cross-cultural validity, showing the Spanish and Dutch versions of the CSES have similar psychometric properties to the English version.

*Trust in leadership.* Trust in leadership was assessed using the Interpersonal Trust measure (McAllister, 1995). Participants respond to each of eleven items on a seven-point Likert-scale, with responses ranging from “Strongly agree” to “Strongly disagree.” The scale measures both affect-based (five items) and cognition-based (six items) trust. The scale was modified slightly to make it clear that the referent of trust is the direct manager of the participant. For example, the item “We have a sharing relationship. We can both freely share our ideas, feelings, and hopes” was changed to “My manager and I have sharing relationship. We can both freely share our ideas, feelings, and hopes.” A similar strategy to ensure that the correct referent is being rated has been used in previous research (Dirks, 2000). McAllister (1995) reported internal consistency estimates of .89 and .91 for the affect- and cognitive-based measures, respectively.

*Work Outcomes*
Overall job satisfaction. Overall job satisfaction was assessed with the three-item overall job satisfaction subscale of the Michigan Organizational Assessment Questionnaire (MOAQ; Cammann, Fichman, Jenkins, & Klesh, 1983). Participants responded to each item on a seven point Likert-scale, with responses ranging from “Strongly agree” to “Strongly disagree.” A sample item is “All in all, I am satisfied with my job.” Recent meta-analyses have estimated internal consistency estimates at .85 and test-retest reliability at .49 (Bowling & Hammond, in press).

Satisfaction with the leader. Satisfaction with the leader was assessed using a measure from Beehr et al. (2006). The measure has five items to which participants respond indicate their level of agreement on a seven-point Likert-scale. A sample item is “Overall, I am very pleased with the way my manager supervises me.” An internal consistency estimate of .93 was reported in Beehr et al. (2006).

Perceived core job characteristics. Followers’ perceptions of core job characteristics will be measured using the Job Diagnostic Survey (Hackman & Oldham, 1976). The measure has a total of 15 items, three items for each of the five core job characteristics. A sample item on the feedback subscale is “After I finish a job, I know whether I performed well.”

Organizational citizenship behaviors. Organizational citizenship behaviors directed at individuals (OCBI) and the organization (OCBO) were assessed using a measure from Lee and Allen (2002). The 16 items on the scale were selected from other OCB measures on the basis of the item content specifically tapping either OCBI or OCBO. The items were slightly modified to make them appropriate for use as a self-report measure. In the original measure, managers were to rate their subordinates on an item such as “helps others who have been absent.” To make the item appropriate for a self-report measure, the item was changed to “I help others who have been
absent.” Internal consistency estimates (.83 and .88 for OCBI and OCBO, respectively) were in the acceptable range (Lee & Allen, 2002).
Results

Hypotheses 1 and 2

Hypotheses 1 and 2 were evaluated using correlational analyses. Means, standard deviations, and intercorrelations for all study variables are provided in Table 2. Prior to generating correlations, composite scale scores were computed for transformational and transactional leadership behaviors as a whole. For transformational leadership, scores on the subscales of idealized influence – attributed, idealized influence – behavioral, individual consideration, intellectual stimulation, and inspirational motivation were summed up and divided by five (the number of subscales). The resulting value was a composite representing the full spectrum of transformational leadership behaviors (Avolio & Bass, 2004). The same procedure was done for transactional leadership and the associated subscales of contingent reward and management by exception – active. Internal consistently estimates were also computed for these composite scale scores. The internal consistency estimates for transformational and transactional leadership composite scales were .96 and .67, respectively. The higher internal consistency estimate for the transformational composite scale could be attributed either to an increased number of items (20 versus 12) or much higher average intercorrelations between the transformational subscales \( r = .84 \) than the non-significant observed correlation between the contingent reward and management by exception – active subscales \( r = .06 \).

Hypothesis 1 correlational analyses. In Hypothesis 1, it was predicted that a supervisor’s transactional leadership behaviors would be significantly and positively correlated with follower job satisfaction and satisfaction with the leader. This hypothesis was supported, as the correlations between transactional leadership behavior composite scores and overall job
satisfaction and satisfaction with the leader were significant at the .01 level \((r = .27\) and \(.38,\) respectively). An examination of the two subscales revealed some unexpected results concerning the relationships between the individual subscales and the outcomes. The contingent reward dimension exhibited the hypothesized relationships with both overall job satisfaction \((r = .45, p < .01)\) and satisfaction with the leader \((r = .68, p < .01)\). Whereas these correlations were significant and positive, the correlations between these outcomes and management by exception – active were either non-significant \((\text{for follower job satisfaction, } r = .08, \text{n/s})\) or significant but negative \((\text{for satisfaction with the leader, } r = -.17, p < .01)\). These results suggest that although both of these dimensions make up the larger transactional leadership factor (Avolio & Bass, 2004), they have differential relationships with the outcome variables in the current study. Although we would not expect this finding as the subscales are part of the same composite, the differential pattern of relationships might not be surprising in the current data set as the two scales are not significantly correlated \((r = .06, \text{n/s}).\)

_Hypothesis 2 correlational analyses._ In Hypothesis 2, it was predicted that a supervisor’s transformational leadership behaviors would be related to follower job satisfaction, satisfaction with the leader, self-reported frequency of organizational citizenship behaviors, and perception of core job characteristics. This hypothesis was supported, as significant correlations were observed between the transformational leadership behavior composite and overall job satisfaction \((r = .49, p < .01)\), satisfaction with the leader \((r = .75, p < .01)\), interpersonally-directed organizational citizenship behaviors \((r = .31, p < .01)\), organizationally-directed organizational citizenship behaviors \((r = .46, p < .01)\), and each of the core job characteristics \((\text{for task significance, } r = .29, p < .01; \text{for task variety, } r = .32, p < .01; \text{for task identity, } r = .28, p < .01; \text{for autonomy, } r = .42, p < .01; \text{and for feedback, } r = .33, p < .01).\) Among the subscales of
transformational leadership behaviors, idealized influence – attributed consistently displayed the strongest relationships with the work outcomes (ranging from .40 with perception of core job characteristics to .77 with satisfaction with the leader) and intellectual stimulation consistently had the weakest relationships with the work outcomes (ranging from .27 with organizational citizenship behaviors – interpersonal to .61 with satisfaction with the leader).

Transformational leadership behaviors had the strongest relationships with work outcomes that tapped constructs specifically associated with the leader, such as satisfaction with the leader. Though not specifically considered as an outcome in this study, supervisor transformational leadership behaviors were strongly correlated with both affect-based and cognitive-based trust in the leader ($r = .79$ and .77, respectively). The weakest, though still significant correlations, were with work outcomes unrelated to the leader, such as interpersonally-directed organization citizenship behaviors ($r = .31, p < .01$).

**Hypotheses 3 and 4**

It was predicted in Hypothesis 3 that follower core self-evaluation would moderate the relationship between supervisor transformational leadership behaviors and follower overall job satisfaction. To test this hypothesis, a moderated regression analysis was conducted using the procedure recommended by Baron and Kenny (1986). Following the suggestion of Aiken and West (1991), scores on the composite transformational leadership behavior scale (predictor) and follower core self-evaluation scores (moderator) were mean centered so as to avoid problems associated with multi-collinearity. After mean-centering, and interaction term was computed by multiplying the mean-centered scores. Table 3 summarizes the results of these analyses.

**Hypothesis 3 regression analysis.** A hierarchical regression analysis was then conducted, with follower job satisfaction scores serving as the dependent variable. At Step 1, follower
overall job satisfaction scores were regressed on mean centered values for supervisor transformational leadership behaviors and follower core self-evaluation. The results indicated that direct effects were present for both transformational leadership behaviors controlling for core self-evaluation ($\beta = .38, p < .01$) and core self-evaluation controlling for transformational leadership behaviors ($\beta = .36, p < .01$). At Step 2, the interaction term was entered. Significance at this step is evaluated by examining the change in $R^2$. The change in $R^2$ between Step 1 and Step 2 was significant ($\Delta R^2 = .025, F_{(1, 308)} = 12.68, p < .01$). Because the interaction term is the only variable entered at Step 2, the presence of a significant change of $R^2$ means the standardized regression coefficient for the interaction term is significant as well ($\beta = -.16, p < .01$). Thus, the conclusion can be drawn that a significant interaction is present.

*Hypothesis 3 simple slopes analysis.* A simple slopes analysis was conducted to probe the direction of the observed moderated relationship. Simple slopes were computed at plus-one standard deviation and minus-one standard deviation of the core self-evaluation score. The simple slopes for minus-one and plus-one standard deviations of the moderator were computed by summing the unstandardized partial regression coefficient of the predictor and the product of multiplying the unstandardized partial regression coefficient of the interaction and the negative/positive standard deviation of the moderator. The simple slope (given in unstandardized form) for participants with low core self-evaluation was 0.67, ($t_{(309)} = 8.21, p < .01$). For participants with high core self-evaluation, the simple slope was 0.29 ($t_{(309)} = 3.88, p < .01$).

Although the link between a supervisor’s transformational leadership behaviors and job satisfaction is significant for participants with all levels of core self-evaluation, the relationship is stronger for low core self-evaluation participants. Thus, Hypothesis 3 was supported. These
simple slopes are plotted on Figure 3, with the highest and lowest values of the mean-centered composite transformational leadership behavior scale as anchors.

**Hypothesis 4 regression analysis.** It was predicted in Hypothesis 4 that follower core self-evaluation would moderate the effect of a supervisor’s transformational leadership behaviors on a follower’s satisfaction with the leader. Again, this hypothesis was tested using moderated multiple regression. At Step 1 of the hierarchical linear regression, satisfaction with the leader scores were regressed on mean centered values for the predictor (composite transformational leadership scale score) and the moderator (core self-evaluation score). Both standardized regression coefficients were significant (for transformational leadership, $\beta = .72$, $t_{(309)} = 18.59$, $p < .01$, for core self-evaluation, $\beta = .12$, $t_{(309)} = 3.10$, $p < .01$), indicating that direct effects on satisfaction with the leader are present for each, controlling for the other. At Step 2, the interaction term was added to the model. Again, significance at this step is evaluated by examining the change in $R^2$. The change in $R^2$ between Step 1 and Step 2 was significant ($\Delta R^2 = .01$, $F_{(1, 308)} = 5.26$, $p < .05$). The standardized regression coefficient for the interaction term in Step 2 was also significant ($\beta = -.09$, $p < .05$). Thus, we can conclude that a significant interaction is present.

**Hypothesis 4 simple slopes analysis.** As with Hypothesis 3, simple slopes were computed for one standard deviation above and one standard deviation below the mean score on the CSES. The simple slope (given in unstandardized form) for participants with low core self-evaluation was 1.952, ($t_{(309)} = 14.45$, $p < .01$). For participants with high core self-evaluation, the simple slope was 1.546 ($t_{(309)} = 12.56$, $p < .01$). Although the link between a supervisor’s transformational leadership behaviors and follower satisfaction with the leader is significant for participants with all levels of core self-evaluation, the relationship is stronger for low core self-
evaluation participants. Thus, Hypothesis 4 was supported. These simple slopes are plotted on Figure 4, with the highest and lowest observed values of the mean-centered composite transformational leadership behavior scale serving as anchors.

Hypotheses 5 through 8

Structural equation modeling (SEM) was used to evaluate Hypotheses 5 through 8. Because in each of the hypotheses it was predicted that affect-based trust in the leader fully mediates the impact of transformational leadership behaviors on separate work outcomes, SEM is ideal because it allows for simultaneous estimation of the paths associated with all four hypotheses (Kline, 2005). Additionally, SEM allows the researcher to model the relationship between latent variables, accounting for unreliability in measurement. Two potential models were specified—a model where affect-based trust in the leader fully mediates the relationship between transformational leadership (see Figure 5) and a model where the same relationships are partially mediated by affect-based trust in the leader (see Figure 6).

Model specification. For a structural equation model to be identified, two criteria must be met (Kline, 2005). First, the model must have “at least as many observations as free model parameters” (Kline, 2005, p. 105). Second, each latent variable must have an indicator (such as a scale) assigned to it. Models that violate the first criteria are termed to be underidentified. These models have insufficient information to derive unique estimates. A second model classification is just-identified. These models have equal numbers of parameters and observations (Kline, 2005). This property means that just-identified models always fit the data perfectly. The goal of SEM specification is to specify an overidentified model. These models have more observations than parameters. This allows for solutions that are unique but may not perfectly fit all of the observations. To calculate the number of data points in the model, one uses the following
formula: $v(v+1)/2$, where $v$ = the number of observed variables in the model (Kline, 2005). The current model has 153 data points. Subtracting the number of parameters (42), the proposed model is overidentified with 111 degrees of freedom.

For both models, transformational leadership behavior was treated as a latent variable with five indicators (individual consideration, intellectual stimulation, inspirational motivation, idealized influence-attribute, and idealized influence-behavior facets of the MLQ). Factor loadings for these indicators on the latent variable ranged from .86 to .92. Affect-based trust in the leader was treated as a latent variable with a single indicator (the affect-based facet of the Interpersonal Trust Measure). In cases such as this where the only indicator of a latent variable is a scale with a number of items that is not conducive to parceling, the error variance of the indicator should be fixed to a value determined by the following formula (Kline, 2005): $(1-\alpha)(\sigma^2)$. In the case of affect-based trust in the leader, this led to the error variance associated with single indicator to be fixed at 5.46 ($(1-.93)*(8.84^2)$. A similar procedure was followed with single indicators for satisfaction with the leader (the satisfaction with the leader measure) and overall job satisfaction (MOAQ), leading to fixed error variances of 2.00 ($(1-.90)*(4.47^2)$ and 3.97 ($(1-.95)*(8.91^2)$, respectively. The latent variable representing organizational citizenship behaviors had four indicators. Each indicator was a four-item parcel of the OCB measure. Parcels were made up of consecutive four item groupings (e.g., items 1-4 constituted parcel 1, items 5-8 constituted parcel 2). These parcels had factor loadings from .53 to .87. Finally, a latent variable representing core job characteristics was indicated by the five components of the JDS (task variety, task significance, task identity, feedback, and autonomy). The indicators had factor loadings of .54 to .78.
Model fit and comparison. Model fit was assessed using the recommendations set forth by Hu and Bentler (1999). Because the chi-square test is sensitive to large sample sizes, other fit indices should be used as well. In this study, the comparative fit index (CFI), the root means square error of approximation (RMSEA), and the standardized root mean square residual (SRMR) were used. Hu and Bentler recommended cutoff values of near .95 for the CFI, .06 for the RMSEA, and .08 for the SRMR. By these standards, Model 1 demonstrated less than acceptable fit ($\chi^2_{(117)} = 499.80, p < .01, \text{CFI} = .91, \text{RMSEA} = .10, \text{and SRMR} = .11$). Model 2 also demonstrated less than acceptable fit ($\chi^2_{(113)} = 488.87, p < .01, \text{CFI} = .91, \text{RMSEA} = .10, \text{and SRMR} = .11$).

In order to improve the fit of these two models, the disturbances associated with the outcome variables were correlated. Conceptually, correlated disturbances acknowledge that the exogenous variables may have a common cause that is not specified in the model (Kline, 2005). In this case, the simultaneous administration of the study measures may have introduced a common cause of error. Adding correlated disturbances to the models results in the specification of six additional paths. Chi-square difference tests were used to compare the original models to the models with correlated disturbances (Models 1b and 2b, respectively). The chi-square difference tests between Model 1 and Model 1b ($\chi^2_{D(6)} = 113.03, p < .01$) and Model 2 and Model 2b ($\chi^2_{D(6)} = 116.62, p < .01$) supported the addition of the these correlated disturbances. Model 1b ($\chi^2_{(111)} = 386.77, p < .01, \text{CFI} = .93, \text{RMSEA} = .09, \text{and SRMR} = .08$) and Model 2b ($\chi^2_{(107)} = 378.61, p < .01, \text{CFI} = .93, \text{RMSEA} = .09, \text{and SRMR} = .08$) both moved much closer to acceptable fit. Standardized regression coefficients for Models 1b and 2b are presented in Figures 5 and 6, respectively.
Comparing Models 1b and 2b allowed for a comparison of fit indices associated with a model where all relationships between transformational leadership behaviors and work outcomes were fully mediated (Model 1b) and a model where the same relationships were partially mediated (Model 2b). A chi-square difference test showed that the fit of Model 2b improved with the addition of the four direct paths ($\chi^2_{D(4)} = 9.69, p < .05$). The significant chi-square difference test is interpreted in model building supports the retention of the added paths because they have significantly increased model fit. Thus, when evaluating all four relationships simultaneously, a model with partially mediated relationships between transformational leadership behaviors and the work outcomes fit the data better than a model with fully mediated relationships.

The formation of Model 3 (see Figure 7) was informed by the examination of the coefficients from the models discussed above. Non-significant paths (specifically, indirect paths between transformational leadership behaviors to overall follower job satisfaction and follower satisfaction with the leader) were deleted from Model 2b to form Model 3. As a result, this model specified relationships where affect-based trust in the leader partially mediated the impact of transformational leadership behaviors on core job characteristics and organizational citizenship behaviors and fully mediated relationships between transformational leadership behaviors and overall job satisfaction and follower satisfaction with the leader. All indicators, fixed error variances and the presence of correlated disturbances were maintained from previous models. This model also demonstrated acceptable fit ($\chi^2_{(109)} = 378.61, p < .01$, CFI = .93, RMSEA = .09, and SRMR = .08). A comparison of Models 3 and 2b ($\chi^2_{D(2)} = 1.53$, n/s) suggested that the two models do not have significantly different fit. Model 3 is accepted as the best fitting and most parsimonious model. Fit statistics and all comparisons are displayed in Table 4.
**Model interpretation.** All paths specified in Model 3, with the exception of that between transformational leadership behaviors and organizational citizenship behaviors, were significant. The path between transformational leadership behaviors and affect-based trust in the leader was significant ($\beta = .84, z = 19.55, p < .01$). The paths between affect-based trust in the leader and each of the work outcomes were significant (for organizational citizenship behaviors, $\beta = .36, z = 3.15, p < .01$, for core job characteristics, $\beta = .24, z = 2.22, p < .05$, for overall follower job satisfaction, $\beta = .68, z = 12.78, p < .01$, and for follower satisfaction with the leader ($\beta = .94, z = 35.62, p < .01$). The direct path between transformational leadership behaviors and core job characteristics ($\beta = .32, z = 2.71, p < .01$), cementing the finding that affect-based trust in the leader partially mediates the relationship. The path between transformational leadership behaviors and organizational citizenship behaviors was not significant, suggesting a fully mediated relationship.

The presence affect-based trust in the leader fully mediating the relationship between transformational leadership behaviors and overall job satisfaction and satisfaction with the leader in Model 3 provides support for Hypothesis 5 and Hypothesis 6. Because the relationships between transformational leadership behaviors and organizational citizenship behaviors and transformational leadership behaviors and perceptions of core job characteristics were partially mediated by affect-based trust in the leader, Hypothesis 7 and Hypothesis 8 were partially supported.

**Exploratory Analyses**

In addition to evaluating the proposed hypotheses, additional analyses were run to address potential alternative hypotheses and interesting research questions. Exploratory analyses were performed examining the extent to which follower core self-evaluation moderated the
impact of transactional leadership behaviors on follower overall job satisfaction and satisfaction with the leader.

Whereas the relationship between supervisor transformational leadership behaviors and work outcomes (overall job satisfaction and satisfaction with the leader) were found to be moderated by follower core self-evaluation, the same effect was not expected to be found for the effect of supervisor transactional leadership behaviors on the same outcomes. After regressing overall job satisfaction on mean centered scores for supervisor transactional leadership behaviors and follower core self-evaluation at Step 1, adding the interaction term at Step 2 did not significantly change the $R^2$ of the model ($\Delta R^2 = .001, F_{(1, 308)} = .420, \text{n/s}$). When the same procedure was applied with satisfaction with the leader as the dependent variable, the change in $R^2$ at Step 2 was not significant either ($\Delta R^2 = .000, F_{(1, 308)} = .114, \text{n/s}$).

Although the results for transformational leadership behaviors were not replicated with transactional leadership behaviors, this could be due to the factor structure of transactional leadership. To test this further, the contingent reward dimension was tested separately. As mentioned in the discussion of Hypothesis 1, the results of the current study indicated that the contingent reward dimension of transactional leadership exhibited strong correlations with the transformational leadership behavior dimensions. For this reason, exploratory analyses were conducted to examine the extent to which the effect of supervisor contingent reward behaviors on job satisfaction and satisfaction with the leader were moderated by follower core self-evaluation.

After regressing overall job satisfaction score on mean centered scores for supervisor contingent reward behaviors and follower core self-evaluation at Step 1, adding an interaction term at Step 2 significantly changed the $R^2$ of the model ($\Delta R^2 = .019, F_{(1, 308)} = .019, p < .01$). A
simple slopes analysis (with slopes computed for plus one standard deviation of the moderator and minus one standard deviation of the moderator) demonstrated that the relationship between a supervisor’s contingent reward behavior and follower job satisfaction is stronger for participants with low core self-evaluation ($SS_{low} = .578, t_{(308)} = 7.643, p < .01$) than it is for participants with high core self-evaluation ($SS_{high} = .244, t_{(308)} = 4.850, p < .01$). See Figure 8 for a graph plotting of the effect of the transformational leadership behavior by core self-evaluation interaction on follower job satisfaction.

A similar effect was found when satisfaction with the leader was substituted as the dependent variable ($\Delta R^2 = .007, F_{(1, 308)} = 4.20, p < .05$). Again, the simple slopes analysis (see Figure 9) showed that the effect was stronger for participants with low core self-evaluation ($SS_{low} = 1.671, t_{(308)} = 14.894, p < .01$) than with high core self-evaluation ($SS_{high} = 1.279, t_{(308)} = 13.644, p < .01$). Results for these analyses are presented in Table 5. The similarity of these results and those found for the evaluation of Hypotheses 3 and 4 suggest that the contingent reward dimension of transactional leadership behaviors exhibits relationship with the other variables that is much more similar to the relationships that were observed between the transformational subscales and the other variables in the study.

The current study also examined the role that the development of affect-based trust in the leader plays in the relationship between transformational leadership behaviors and work outcomes. An integration of these sets of hypotheses may cause one to wonder if follower core self-evaluation impacts the extent to which transformational leadership behaviors from supervisors help develop affect-based trust in the leader. A moderated multiple regression analysis, conducted as described above, demonstrated that this is not the case ($\Delta R^2 = .003, n/s$). Though core self-evaluation appears to moderate the extent to which leadership behaviors impact
satisfaction attitudes, it does not impact the extent to which leaders are able to create affect-based trust in their leaders.

The data collected also allowed for an examination of the augmentation hypothesis. Previous research has suggested that transformational leadership behaviors account for incremental variance in work outcomes after controlling for transactional and laissez-faire leadership behaviors (Judge & Piccolo, 2004). A hierarchical regression analysis (see Table 6 for a summary) produced results that were in line with previous research thinking (e.g., Bycio et al., 2005; Judge & Piccolo, 2004), in that transformational leadership behaviors accounted for unique variance in all four job outcomes tested (overall job satisfaction, satisfaction with the leader, organizational citizenship behaviors, and motivation score potential) above and beyond that accounted for by transactional and laissez-faire leadership behaviors. When transformational leadership and laissez-faire leadership behaviors were controlled for, transactional leadership behaviors did not account for a significant amount of unique variance in overall job satisfaction or organizational citizenship behaviors and had a negative relationship with satisfaction with the leader and perception of core job characteristics.

Social identity. Alignment of social identity with personal identity was one mechanism through which transformational leadership behaviors may impact follower-based work outcomes. To test this theory, a measure of the extent to which one identifies with their work group was administered. The seven item measure (see Appendix I) exhibited acceptable internal consistency ($\alpha = .80$). For the purposes of this study, the work group was defined as the group of individuals who operate under a single leader. Effective transformational leadership was expected to have the greatest impact on these individuals, as they are likely to have been the most exposed to transformational leadership behaviors. Correlational analyses demonstrated that both
transformational \((r = -.32, p < .01)\) and transactional leadership composites \((r = -.24, p < .01)\) were related to identification with one’s work group. The direction of the effects suggested that as the frequency of these leadership behaviors increased followers identified more strongly with their immediate work groups. Once these direct effects have been demonstrated, moderated multiple regression analyses, similar to those conducted for Hypotheses 3 and 4, were conducted to determine the extent to which the impact of transformational leadership behaviors varied by follower social identity. For follower overall job satisfaction, the transformational leadership by social identity interaction term did not significantly change the amount of variance accounted by the main effects \((\Delta R^2 = .002, \text{n/s})\). A similar result was obtained when satisfaction with the leader served as the dependent variable \((\Delta R^2 = .001, \text{n/s})\).

The role of satisfaction with the leader in SEM analyses. Finally, the strong relationship between affect-based trust in the leader and satisfaction with the leader warranted additional analyses. The coefficient observed in Model 3 was such that the model suggested that affect-based trust in the leader and satisfaction with the leader were essentially the same construct. Thus, a model was specified where satisfaction with the leader was added as an indicator of affect-based trust in the leader. This model demonstrated fit statistics similar to that found in the other SEM models examined to evaluate Hypotheses 5 through 8 \((\chi^2_{(114)} = 534.50, p < .01, \text{CFI} = .90, \text{RMSEA} = .11, \text{and SRMR} = .08)\).

Alternative item mean-replaced dataset. The original dataset upon which the hypotheses were originally tested contained data for 312 individuals who completed all items on the survey. This group represented 42% of all individuals who responded to the survey. To ensure that the results were not dependent upon an overly restrictive, and potentially non-representative sample of respondents, all analyses were conducted on a dataset containing all 498 respondents who
completed at least 90% of the survey items. Missing item values were replaced with the mean item value across all 498 respondents. All other analyses were completed in the same manner as described above.

Correlational analyses conducted on this dataset elicited the same relationships as was found with the 312-participant sample. For Hypothesis 1, the transactional leadership behavior composite had significant positive relationships with overall follower job satisfaction ($r = .27, p < .01$) and follower satisfaction with the leader ($r = .36, p < .01$). For Hypothesis 2, the transformational leadership composite had significant positive relationship with overall follower job satisfaction ($r = .51, p < .01$), follower satisfaction with the leader ($r = .72, p < .01$), interpersonally-directed organizational citizenship behaviors ($r = .35, p < .01$), organizationally-directed organizational citizenship behaviors ($r = .49, p < .01$), and motivating potential score ($r = .40, p < .01$). The magnitudes of these correlations are also in line with results from the 312-participant dataset. See Table 7 for means, standard deviations, reliabilities and intercorrelations of study variables on this dataset.

The moderated regression analyses conducted to assesses the veracity of Hypotheses 3 and 4 were also very similar to the results from the 312-participant dataset (see Table 8). Again, significant transformational leadership composite by follower core self-evaluation interaction terms were observed in predicting follower job satisfaction ($\beta = -.16, p < .01$) and satisfaction with the leader ($\beta = -.08, p < .01$). The sign of this beta also showed that the direction of the interaction and subsequent interpretation would be the same in this case as it was for the 312-participant dataset.

The SEM analyses used to evaluate Hypotheses 5 through 8 were also repeated using the item-mean replaced dataset. All models, as specified in the analyses above, were conducted in the
same manner with the item-mean replaced dataset. The end result of these analyses was a slightly revised model. Recall that the model that best fit the original dataset specified that affect-based trust in the leader fully mediated the relationship between transformational leadership behaviors and follower overall job satisfaction and satisfaction with the leader and that affect-based trust in the leader partially mediated the relationship between transformational leadership behaviors and organizational citizenship behaviors and perceptions of core job characteristics. The trimmed model that best fit the item-mean replaced dataset specified that affect-based trust in the leader fully mediated the relationship between transformational leadership behaviors and organizational citizenship behaviors and that affect-based trust in the leader partially mediated the relationship between transformational leadership behaviors and overall follower job satisfaction, satisfaction with the leader and perceptions of core job characteristics. In terms of hypothesis testing, this means that for the item-mean replaced dataset, Hypotheses 5, 6, and 8 were partially supported and Hypothesis 7 was fully supported. This model demonstrated better and more acceptable fit statistics than did the same model with the original dataset ($\chi^2_{(108)} = 335.09, p < .01, \text{CFI} = .96, \text{RMSEA} = .07, \text{and SRMR} = .04$). One might suggest that the reason for these differences is that adding values equal to the item mean reduces the overall variance of the variable, thus placing a lower ceiling on the relationships between the two variables. This may especially be the case for the direct relationships between affect-based trust in the leader and the outcome variables. By reducing the amount of variance that the affect-based trust in the leader measure can account for, the relationships between transformational leadership behaviors and the outcome variables are more likely to be significant, yielding a partially mediated relationship. The relatively low magnitude of the coefficients between transformational leadership behaviors and overall follower
job satisfaction ($\beta = .18$) and satisfaction with the leader ($\beta = .11$) suggested that this may be the case.

*Alternative scale mean-replaced dataset.* In addition to re-examining the hypotheses with a dataset including where missing values (for those who completed more than 90% of the survey) were replaced with the item mean, a similar analysis was done with a dataset where missing values were replaced with the scale mean. This strategy essentially uses the participants other responses on items on the same scale to estimate the missing value.

Again, the correlational analyses of Hypotheses 1 and 2 revealed the same relationships as found with the previous two datasets. For Hypothesis 1, the transactional leadership behavior composite had significant positive relationships with overall follower job satisfaction ($r = .27, p < .01$) and follower satisfaction with the leader ($r = .35, p < .01$). For Hypothesis 2, the transformational leadership composite had significant positive relationship with overall follower job satisfaction ($r = .51, p < .01$), follower satisfaction with the leader ($r = .71, p < .01$), interpersonally-directed organizational citizenship behaviors ($r = .35, p < .01$), organizationally-directed organizational citizenship behaviors ($r = .49, p < .01$), and motivating potential score ($r = .40, p < .01$). The magnitudes of these correlations are also in line with results from the 312-participant dataset. See Table 9 for means, standard deviations, reliabilities and intercorrelations of study variables on this dataset.

Follow-up moderated regression analyses conducted to assesses the veracity of Hypotheses 3 and 4 with the scale-mean replaced dataset were also conducted (see Table 10). As was found with the previous two data, significant transformational leadership composite by follower core self-evaluation interaction terms were observed in predicting follower job satisfaction ($\beta = -.16, p < .01$) and satisfaction with the leader ($\beta = -.08, p < .01$). Additionally,
the sign of this beta also showed that the direction of the interaction and subsequent interpretation would be the same in this case as it was for the 312-participant dataset.

The SEM analyses used to evaluate Hypotheses 5 through 8 were also repeated using the scale-mean replaced dataset. The best fitting model for this dataset was the same as the best fitting model for the item-mean replaced dataset. Again, in terms of hypothesis testing, Hypotheses 5, 6, and 8 were partially supported and Hypothesis 7 was fully supported. This model demonstrated better and more acceptable fit statistics than did the same model with the original dataset ($\chi^2_{(108)} = 330.00, p < .01, \text{CFI} = .96, \text{RMSEA} = .06, \text{and SRMR} = .04$). The reasons for this suggested in the above section apply here, as well.
Discussion

The current study both affirmed previous research findings regarding the relationship between a supervisor’s transformational leadership behaviors and follower work outcomes and added to the literature by demonstrating that follower core self-evaluation and affect-based trust in the leader impact those relationships in different ways.

The correlational analyses demonstrated that transformational leadership behaviors have a relationship with a variety of work outcomes, including follower job satisfaction, satisfaction with the leader, organizational citizenship behaviors, and perceptions of core job characteristics. These relationships have been summarized and reviewed in previous meta-analyses, and the current results are in line with the previous literature in the area (e.g., Judge & Piccolo, 2004; Organ & Ryan, 1995; Piccolo & Colquitt, 2006).

A key contribution of the current research revolves around the demonstration that personal characteristics, including personality, can influence the effectiveness and impact of a leader’s transformational leadership behaviors on job satisfaction and satisfaction with the leader. Specifically, the results indicated that transformational leadership behaviors had a larger effect on individuals with low core self-evaluation than on individuals with high core self-evaluation. For job satisfaction and satisfaction with the leader, transformational leadership behaviors compensated for low core self-evaluation among followers. Champoux and Peters (1987) demonstrated that due to low power inherent in detecting moderators and interaction effects, a statistically significant effect likely has practically significant effects beyond what might be inferred from the statistical analyses. The graph of these relationships (see Figures 3 and 4) suggests this might be the case in this study.
A moderating effect in this direction suggested that the vision, motivation, stimulation, and consideration shown to followers by transformational leaders resonate more loudly with employees who hold unfavorable core self-evaluations. One possible explanation for this phenomenon is that transformational leaders are able to increase, at least temporarily, the lower satisfaction levels typically found in low core self-evaluation followers. As demonstrated in Figures 3 and 4, transformational leadership also tends to accompany higher levels of job satisfaction and satisfaction with the leader in high core self-evaluation followers. However, the moderating effect showed the relationship was not as strong for these followers as it was for low core self-evaluation followers.

Previous studies have found (Judge et al., 2003), and this study replicates, a relationship between core self-evaluation and job satisfaction. Exploratory regression analyses showed that individuals with high core self-evaluations tended to have high levels of job satisfaction, controlling for the effect of transformational leadership behaviors. This suggests that low core self-evaluation individuals have a greater amount of job satisfaction to “gain.” The strength of the relationship between transformational leadership behaviors and job satisfaction for high core self-evaluation followers did not suggest a ceiling effect. A ceiling effect would cause transformational leadership to have little or no effect on high core self-evaluation individuals. As the simple slopes show, there is still a strong relationship between transformational leadership behaviors and satisfaction attitudes.

At relatively lower levels of transformational leadership, individuals with high core self-evaluation had relatively higher levels of job satisfaction and satisfaction with the leader than did individuals with low core self-evaluation. This gap closed as leader transformational leader behaviors increased. At the highest observed levels of transformational leadership, the gap was
small to negligible. Generally, organizations would like employees with high core self-
evaluation, as they tend to have relatively higher levels of job satisfaction and satisfaction with
the leader. The current study suggests that a strong transformational leader could compensate for
low core self-evaluation in followers, and that these followers may have comparable levels of job
satisfaction and satisfaction with the leader. These findings provided strong support for
individual differences in followers moderating the effectiveness of leadership.

In addition to the findings demonstrating the moderating effect of core self-evaluation,
the current study also examined the extent to which affect-based trust in the leader mediates the
effect of transformational leadership behaviors. The SEM analyses summarized above indicated
that affect-based trust in the leader fully mediated the relationship between transformational
leadership behaviors and the satisfaction variables (follower job satisfaction and satisfaction with
the leader). The presence of a fully mediated relationship suggested that affect-based trust in the
leader must be fostered in the follower before transformational leadership behaviors can impact a
follower’s job satisfaction or satisfaction with the leader. This finding informs us as to a potential
mechanism through which transformational leadership behaviors impact satisfaction attitudes.
The fully mediated relationships suggest that the behaviors associated with transformational
leadership do not impact satisfaction directly; followers derive satisfaction from the affect-based
trust they develop in their leader.

Affect-based trust in the leader was found to partially mediate the effects of the
transformational leadership behaviors on organizational citizenship behaviors and perceptions of
core job characteristics. The partially mediated relationships suggest that though the effect of
affect-based trust is an important factor in follower organizational citizenship behaviors and
perceptions of core job characteristics, other factors play a role as well.
In the SEM analyses, the best fitting model was one where the affect-based trust in the leader fully mediated the relationship between transformational leadership behaviors and the satisfaction variables. The relationships between transformational leadership behaviors and evaluations of the job (perception of core job characteristics) and evaluations of on-the-job behaviors (organizational citizenship behaviors) were partially mediated. There is perhaps an interesting distinction here. Having an affect-based trust in a leader is very personal. Both satisfaction variables involve a person-oriented attitude target. It follows that another person-oriented attitude is an important mechanism through which transformational leadership impacts the satisfaction variables. Perception of core job characteristics and organizational citizenship behaviors are both not evaluations of people, but rather of the job and behavior. It stands to reason then that affect-based trust in the leader is a mechanism through which transformational leadership behaviors impact these variables, but not the sole mechanism.

An alternative explanation is that the satisfaction measures and the affect-based trust in the leader measures are both heavily focused on affect, whereas the perceptions of core job characteristics and organizational citizenship behavior measures are not. This notion is supported by previous research has established a link between affect and transformational leadership (Bono & Ilies, 2006; Cherulnik, Donley, Wiewel, & Miller, 2001). The magnitude of the standardized regression coefficients from the SEM analyses between affect-based trust in the leader and satisfaction with the leader suggest that they are mathematically equivalent as they are measured in the current study. The relationship was not as strong between affect-based trust in the leader and overall job satisfaction, but it was still substantial. Thus, the amount of variance accounted for in the affect-based outcomes (e.g., satisfaction with the leader and overall job satisfaction) by
affect-based trust in the leader was so substantial that very little variance was left to be accounted for by the indirect path from the transformational leadership behavior composite.

Somewhat contrary to previous meta-analytic research (Judge & Piccolo, 2004), the current results suggested that the relationships between transformational leadership behaviors and follower job satisfaction and satisfaction with the leader were stronger than the relationships between those same outcomes and contingent rewards. Judge and Piccolo (2004) found that contingent reward behaviors generally exhibit stronger relationships with follower job satisfaction than do transformational leadership behaviors.

The structure of the transactional leadership behavior construct made examining how personal characteristics impact it’s effectiveness on work outcomes difficult. The transactional construct is comprised of two subscale dimensions; contingent reward (sometimes called the “constructive style”) and management by exception-active (the “corrective style,” Avolio & Bass, 2004). These dimensions were not significantly correlated in the current study, nor were they in the data presented by Avolio and Bass (2004). Analyses examining transactional leadership as a whole suffered because the two components had markedly different relationships with the work outcomes in this study. Contingent reward showed consistent, positive and significant relationships whereas management by exception-active had non-significant or significant, but negative relationships. Similarly, Lyons and Schneider (in press) found that experimentally manipulated transformational leadership had a stronger effect on performance than the transactional leadership component of management by exception, but not the transformational leadership component of contingent reward. In many cases, there is nothing theoretically wrong with two facets of a single construct being uncorrelated with each other. In
these cases, separate tests of each facet are a more appropriate test than a composite where tests are likely to be hampered by low internal consistency.

Follower core self-evaluation moderated the impact of contingent reward on both follower overall job satisfaction and satisfaction with the leader (see Table 5). In this respect, contingent reward behaved much more like a dimension of transformational leadership. The current results, namely the noted differences between the two elements of transactional leadership, suggest that the impact of personal characteristics on transactional leadership is more appropriately studied at the dimension level. Future research may wish to examine additional personal characteristics that moderate or mediate the impact of contingent reward behaviors.

The results from the current study have several important theoretical implications. The significant moderator effect of follower core self-evaluation on the transformational leadership – follower job satisfaction and transformational leadership – follower satisfaction with the leader relationships demonstrate that follower disposition can influence the extent to which transformational leadership behaviors impact follower job attitudes. From a theoretical perspective, perhaps the most significant implication is that the results indicate that personal characteristics outside of those suggested by Kerr and Jermier (1978) can have an impact on the effectiveness of leadership behaviors. This finding does not contradict the findings of previous meta-analyses (e.g., Podsakoff et al., 1996a; 1996b), as these investigations did not include follower core self-evaluation or affect-based trust in the leader.

The current finding that affect-based trust in the leader is a mechanism through which transformational leadership behaviors impact follower work outcomes is a novel finding in the literature. Although the more general construct of trust has been the subject of meta-analyses (e.g., Dirks & Ferrin, 2002) and considerable integrative theorizing (Mayer et al., 1995;
Rousseau et al., 1998), affect-based trust has not previously been investigated as a mediator of transformational leadership behaviors. This mediating relationship expands the previous work by Pillai et al. (1999) and addresses a lack of consideration for the mediating model (Dionne et al., 2002; Jermier & Kerr, 1997).

The results of this study also illuminate some potential differences between transformational and transactional leadership. Follower core self-evaluation did not moderate the effect of transactional leadership behaviors on satisfaction outcomes. In other words, the behaviors associated with transactional leadership were not more strongly related to job satisfaction for low core self-evaluation followers than for high core self-evaluation followers. When framed against the differences in the main objectives of the two leadership styles, the reason for the different statistical results become clearer.

However, the structure of the transactional leadership composite makes it difficult to definitively conclude that follower core self-evaluation does not moderate the impact of transactional leadership behaviors on the satisfaction variables. As mentioned above, the two scales that make up the transactional composite are not correlated ($r = .06$, n/s). Additionally, one of the scales, contingent reward, is highly correlated with the transformational leadership composite and has a similar pattern of relationships with the outcome variables. The expected structure of transactional leadership was not found in these data. In addition to the contingent reward subscale not correlating with the management by exception-active subscale, contingent reward was strongly correlated with the transformational leadership subscales (a range of .79 to .83, see Table 2). There appeared to be lack of construct validity for the measurement of transactional leadership, suggesting that results in regards to transactional leadership should be interpreted with caution.
The current study also has practical implications for practitioners. The results suggest that organizations may be able to use measures of core self-evaluation as a way to identify individuals who are likely to benefit from the effects of a transformational leader. If an organization has identified leaders who exhibit transformational behaviors, low core self-evaluation employees who might have low levels of job satisfaction could be redeployed to be under these leaders. Additionally, the results suggest that fostering and, to the extent possible, training leaders to exhibit transformational leadership behaviors could be advantageous for organizations. A benefit could be derived from having leaders and managers who are likely to have subordinates who are more satisfied with the job than their disposition would suggest they might be. Although the concept is poorly defined, engagement has become particularly interesting to practitioners. This study suggests that though individuals with high core self-evaluation are more likely to be engaged, individuals with low core self-evaluation may become similarly in the presence of strong transformational leadership.

Recent literature has suggested that effective leadership can be boiled down to three main components (Dewett, 2008): reducing ambiguity in the follower by maintaining constant expectations, fairness and transparency, and staying positive. This view is consistent with the augmentation hypothesis in that it argues that both transactional behaviors (reducing ambiguity and acting with fairness and transparency) and transformational behaviors (staying positive and communicating supreme confidence in subordinates) are more effective in conjunction with one another than they are in isolation. The current results support this view as well, in that exploratory regression analyses indicated that the effect on work outcomes was larger when both styles of leadership behaviors were considered together than when either was considered individually. From a leadership training perspective, the augmentation hypothesis supported by
the results of the current research indicated that training leaders to effectively employ both transformational and transactional behaviors is the best strategy.

For practitioners, these results bring forth an interesting question regarding workforce planning. If, as the study suggests, transformational leaders have stronger effects on followers with low core-self evaluation than those with high core self-evaluation, this leaves organizations with an intriguing choice. Are organizations better off trying to maximize the already high satisfaction of their high core self-evaluation followers or trying to improve the low satisfaction of their low core self-evaluation followers? This question may be even more difficult to answer if we are concerned differential effect on job performance. With job satisfaction, one could easily adopt a position suggesting that best course action is to help low core self-evaluation people increase their job satisfaction to an average level. With job performance, the answer would likely depend on the variance of job performance. To the extent that high core self-evaluation is related to top performance (Judge et al., 2003), organizations may experience a greater return on their investment by targeting high CSE individuals even though the may get a smaller increase in performance. However, the current research suggests that both high and low CSE individuals would benefit from an intervention, so focusing on one group at the expense of another reduces the potential total impact of the intervention.

Similarly, demographic transitions in the United States workforce, such as the impending retirement of workers from the Baby Boomer generation and subsequent shortage of talent, may push employers away from a “selection” focus to more of a “placement” focus. That is, the goal will be to figure out where and into which job employees can be placed, rather than hiring a specific person for a specific job. The current research can help inform those kinds of decisions,
as the most effective organizations will be those who can build the highest-performing teams out of the available talent pool.

Previous studies have examined situational moderators of transformational leadership behaviors (e.g., Wofford et al., 2001), leading to the conclusion that transformational leaders are better in some contexts or environments than in others. The current study advances to this line of research by demonstrating that followers’ personal characteristics help to make up the environment in which leaders operate.

A recent meta-analysis has suggested that the relationship between job satisfaction and job performance is largely spurious, caused by each having correlations with other factors such as personality, work locus of control, and organization-based self-esteem (Bowling, in press). Transformational leadership has demonstrated effects with both job performance (Judge & Bono, 2001) and job satisfaction (Judge & Piccolo, 2004; Lowe et al., 1996). One could suggest that transformational leadership could be another factor that contributes to the meta-analytic correlations observed between job satisfaction and job performance (Iaffaldono & Muchinsky, 1985; Judge, Thoresen, Bono, & Patton, 2001). This study shows that researchers investigating the relationship between job satisfaction and job performance should consider measuring and controlling for common leadership effects.

Future Research Directions

The current study examined how CSE, which includes generalized self-efficacy, moderates the leadership style on follower job satisfaction. Future research could focus on the potential mediating role played by task-specific self-efficacy. Whereas generalized self-efficacy is a global appraisal of one’s ability to impact their surrounding (and therefore is relatively stable), task-based self-efficacy is an appraisal of competence in a particular task. One could
argue that transformational leaders may be able to raise the task-specific self-efficacy of their followers, thereby leading to increased follower performance. This would suggest a possible mediating relationship, such as that found with affect-based trust in the current study. A study incorporating this hypothesis and the results of the current study could be informative in trying to understand the mechanisms through which transformational leadership impacts followers.

Training leaders to be transformational has been a long standing goal of many leadership training programs. The effectiveness of this training has been examined in limited studies. Using a non-equivalent dependent variable design (Sackett & Mullen, 1993), Frese, Beimal, and Schoenborn (2003) found that both trained and untrained variables showed improvement after training designed to impact inspirational vision was received. Thus, it is not possible to conclude that the training was responsible for the improvement. Towler (2003) found that training can increase the declarative knowledge of charismatic influence and frequency of behaviors (e.g., body gestures, use of analogies) shortly after the conclusion of training, but no effort was made to determine longer term effects or impacts on other outcome variables.

The current study has demonstrated that affect-based trust in the leader is an important mechanism in the effectiveness of transformational leadership behaviors. If it is in fact possible to train leaders to demonstrate transformational behaviors, gaining an understanding of how specific behaviors that develop affect-based trust in the leader would be beneficial in training effective leaders. One specific behavior could be associated with individualized consideration. Perhaps one barrier to developing affect-based trust is a suspicion that the leader cares about the employee only to the extent that they can directly benefit the organization. By demonstrating individual consideration, transformational leaders may be able to demonstrate to followers that they care about them beyond their utility to the organization. Additional research may investigate
variability in the psychological mechanisms associated with specific transformational leadership behavior impact and effectiveness.

Use of advanced statistical techniques might also elucidate interesting causal relationships. Increasingly, researchers and practitioners have begun to recognize the hierarchical and nested nature of organizational data. Because leaders typically have more than one follower, leadership behavior could be considered as variance common to all followers. While the LMX literature would suggest that variance is unique to each leader-follower relationship, the utilization of multilevel random coefficient modeling could be one way to partition variance at different levels in the organization (LaHuis & Avis, 2007). In the context of the current study, transformational leadership behaviors could be considered as a Level 2 variables and follower CSE as a Level 1 variable. Interesting research designs could examine how transformational leadership influence group satisfaction, controlling for each group members’ CSE. Also, the relationship between follower CSE and follower job satisfaction could be examined controlling for the Level 2 effect of transformational leadership. MLM has been used to examine leader-subordinate relationships in the literature (e.g., Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Mathieu, Ahearne, & Taylor, 2007). Future research that utilizes specialized statistical procedures can increase the theoretical and practical implications of the current study.

Although both job attitudes (overall job satisfaction, satisfaction with the leader, and perceptions of core job characteristics) and behaviors (organizational citizenship behaviors) served as the dependent variables of interest in the current study, practitioners and researchers may also be interested in determining if the results generalize to other organizational outcomes, such as follower job performance. A key question would be how follower core self-evaluation affects the relationship of transformational leadership to behavior, rather than on an attitude
(such as job satisfaction or satisfaction with the leader). Although meta-analyses suggest that the magnitude of the relationship between transformational leadership behaviors are stronger with job satisfaction than with job performance (Judge & Bono, 2001; Judge & Piccolo, 2004), similar moderating or mediating effects might be found with job performance.

Further, one could debate the direction of the potential interaction. It could be that the relationship would be similar to the current results, in that followers with low core self-evaluation benefit more from a leader’s transformational behaviors than do high core self-evaluation followers. Another potential outcome is that by drawing on some of the resources associated with a high-CSE (e.g., emotional stability, high generalized self-efficacy, high self-esteem), high-CSE followers will thrive even more under transformational leaders than do low-CSE followers. This effect is seen in the test-wiseness literature where test-taking training tends to exacerbate differences between high and low ability individuals rather than bring the two groups closer together (Barrett, Miguel, & Doverspike, 1997; Kulik, Kulik, & Bangert, 1984).

Applying the current results with job satisfaction to job performance would suggest that rather than exacerbating performance differences, strong transformational leadership may compensate for low core self-evaluation in followers so that all employees have comparatively equal and high levels of performance. Thus, future research may wish to evaluate job performance as an outcome and examine moderating and mediating effects of personal characteristics in that context.

The design of the current study makes common method variance a limitation. Common method variance occurs when the use of a single measure, or single-type of measure, inflates correlations beyond the actual relationship that exists between the constructs of interest (Spector, 2006). For example, systematic rater error (such as leniency) present in multiple measures could
lead to inflated correlations. Cross-sectional, self-report designs are thought to be most prone. Recent commentary has suggested that the prevalence and effect of common method variance may be somewhat overstated (Spector, 2006). To avoid this limitation, future studies may have one set of subordinates evaluate the leadership style of their manager and use those data to examine the effect of follower core self-evaluation on employee performance. This approach may be particularly useful in jobs such as sales, where objective performance metrics are often available.

Though we have specified a causal direction in the SEM models based on the framework provided by the substitute and neutralizer research (Kerr & Jermier, 1978), the casual directions cannot be tested with the current data. Thus, it should be noted that the fit statistics alone do not support a causal direction hypothesis and that future research may wish to employ a longitudinal design that is more conducive to testing causal relationships.

Conclusions

Results from this study indicate that transformational leadership outcomes, specifically satisfaction attitudes about the job and the supervisor depend in part on the follower themselves. This is a departure from traditional models of transformational leadership impact that have not considered follower attributes as moderator variables. The findings indicate that core self-evaluation and affect-based trust in the leader are both important personal characteristics that have a substantial impact on the effectiveness of transformational leadership behaviors. In sum, the current study highlights the importance of considering the follower as a central component to understanding the factors related to leadership effectiveness.
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beginning of the new millennium: What do we know and where do we go next?


*Journal of Applied Psychology, 94*, 909-927.


Eden, D., Geller, D., Gewirtz, A., Gordon-Terner, R., Inbar, I., Liberman, M., Pass, Y.,


Appendix A

Text of Invitation to Participate

Dear StudyResponse Project Participant:

We are requesting your assistance with a study on leadership conducted by a researcher at Wright State University. You must be at least 18 years of age to participate and you must currently be employed full-time. The study will take you approximately 45 minutes to complete. If you choose not to respond within the first week, we will send you a reminder in one week. Note that instructions on how to discontinue your participation in StudyResponse and stop receiving emails from us appear at the end of this message.

This study is anonymous, so please do not enter any identifying information into the research instrument except your StudyResponse ID, which is [ID]. The researcher has pledged to keep your data confidential and only to report aggregated results in any published scientific study.

In appreciation of your choice to participate in the project, we will enter you into a random drawing for several gift certificates to Amazon.com. The researchers have provided StudyResponse with funding for 13 gift certificates to Amazon.com in the amount of $50 each. The drawing will be conducted by StudyResponse on or about one week after last reminder. Note that your StudyResponse ID number is [ID] (also shown in the subject line of this message) and that you must enter that number into the survey to be eligible for the gift certificates. Follow this link to participate:

<<link here>>

Participation in this study is voluntary and you may withdraw from participation at any time. If you have any questions you may contact the researcher:

Charles N. Thompson, M.S.
Wright State University

3640 Colonel Glenn Highway

Dayton, OH 45435

thompson.182@wright.edu

(937) 775-2520
Appendix B

Sample items from the Multifactor Leadership Questionnaire (Avolio & Bass, 2004)

Instructions: This questionnaire is to describe the leadership style of your direct supervisor as you perceive it. Please answer all items in this answer sheet. If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank. Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing. Use the following rating scale:

0 = Not at all
1 = Once in a while
2 = Sometimes
3 = Fairly often
4 = Frequently, if not always

1. Talks optimistically about the future
2. Spends time teaching and coaching
3. Avoids making decisions
Appendix C

The Core Self-Evaluations Scale (CSES; Judge, Locke, & Dunham, 1997)

Instructions: Following are several statements about you with which you may agree or disagree. Using the response scale provided, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

1 = Strongly disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly agree

1. I am confident I get the success I deserve in life.
2. Sometimes I feel depressed. (R)
3. When I try, I generally succeed.
4. Sometimes I fail when I feel worthless. (R)
5. I complete tasks successfully.
6. Sometimes, I do not feel in control of my work. (R)
7. Overall, I am satisfied with myself.
8. I am filled with doubts about my competence. (R)
9. I determine what will happen in my life.
10. I do not feel in control of my success in my career. (R)
11. I am capable of coping with most of my problems.
12. There are times when things look pretty bleak and hopeless to me. (R)
Appendix D

*Interpersonal Trust Measure (McAllister, 1995)*

Instructions: Below are some statements about your current direct manager. Please indicate your level of agreement with the statement, using the provided scale.

1 = Strongly disagree

2 = Disagree

3 = Slightly disagree

4 = Neither agree nor disagree

5 = Slightly agree

6 = Agree

7 = Strongly agree

1. My manager and I have a sharing relationship. We can both freely share our ideas, feelings, and hopes.

2. I can talk freely to my manager about difficulties I am having at work and know that (s)he will want to listen.

3. My manager and I would both feel a sense of loss if one of us was transferred and we could no longer work together.

4. If I shared my problems with my manager, I know (s)he would respond constructively and caringly.

5. I would have to say that my manager and I have both made considerable emotional investments in our working relationship.

6. My manager approaches his/her job with professionalism and dedication.

7. Given my manager’s track record, I see no reason to doubt his/her competence and preparation for the job.

8. I can rely on my manager not to make my job more difficult by careless work.

9. Most people, even those who aren’t close friends of my manager, trust and respect him/her as a coworker.

10. Other work associates of mine who must interact with this individual consider him/her to be trustworthy.

11. If people knew more about my manager and his/her background, they would be more concerned and monitor his/her performance more closely (R).

Note: Items 1-5 are on the Affect-Based subscale, Items 6-11 are on the Cognitive-Based subscale.
Appendix E

The Michigan Organizational Assessment Questionnaire (MOAQ; Cammann et al., 1983)

Instructions: Below are some questions about your level of job satisfaction. Using the scale provided, please indicate your level agreement with each statement.

1 = Strongly disagree
2 = Disagree
3 = Slightly disagree
4 = Neither agree nor disagree
5 = Slightly agree
6 = Agree
7 = Strongly agree

1. All in all I am satisfied with my job
2. In general, I don’t like my job (R)
3. In general, I like working here.
Appendix F

Satisfaction with Leader Scale (Beehr et al., 2006)

1 = Strongly disagree
2 = Disagree
3 = Slightly disagree
4 = Neither agree nor disagree
5 = Slightly agree
6 = Agree
7 = Strongly agree

1. Overall, I am very pleased to have this person as my leader.
2. I would be more content with my job if this person was not my leader. (R)
3. I am more satisfied with this person than with almost anyone who has been my leader.
4. All in all, I am satisfied with this person as my leader.
5. All in all, I would rather have someone else as my leader. (R)
Appendix G

*Job Diagnostic Survey (JDS; Hackman & Oldham, 1976)*

**SECTION ONE**

This part of the questionnaire asks you to describe your job as objectively as you can. Please do not use this part of the questionnaire to show how much you like or dislike your job. Instead, try to make your descriptions as accurate and objective as you can. You are to indicate the number which is the most accurate description of your job.

1. How much autonomy is there in your job? That is, to what extent does your job permit you to decide on your own how to go about doing the work?
   
   1 = very little; the job gives me almost no personal “say” about how and when the work is done
   2
   3
   4 = moderate autonomy; many things are standardized and not under my control, but I can make some decisions about the work
   5
   6
   7 = very much; the job gives me almost complete responsibility for deciding how and when the work is done

2. To what extent does your job involve doing a “whole” and identifiable piece of work? That is, is the job a complete piece of work that has an obvious beginning and end? Or is it only part of the small overall piece of work, which is finished by other people or by automatic machines?

   1 = my job is only a tiny part of the overall piece of work; the results of my activities cannot be seen in the final product or service
   2
   3
   4 = my job is a moderate-sized “chunk” of the overall piece of work; my own contributions can be seen in the final outcome.
   5
   6
   7 = my job involves doing the whole piece of work from start to finish; the results of my activities are easily seen in the final product or service

3. How much variety is there in your job? That is, to what extent does the job require you to do many different things at work, using a variety of your skills and talents?

   1 = very little; the job requires me to do the same things over and over again
   2
   3
4 = moderate variety
5
6
7 = very much; the job requires me to do many different things, using a number of different skills and talents

4. In general, how significant or important is your job? That is, are the results of your work likely to significantly affect the lives or well-being of other people?

1 = not very significant; the outcomes of my work are not likely to have important effects on other people
2
3
4 = moderately significant
5
6
7 = highly significant; the outcomes of my work can affect other people in very important ways

5. To what extent does the job itself provide you with information about your work performance? That is, does the actual work itself provide clues about how well you are doing – aside from any “feedback” co-workers or supervisors may provide?

1 = very little; the job itself is set-up so I could work forever without finding out how well I am doing
2
3
4 = moderately; sometimes doing the job provides “feedback” to me; sometimes it does not
5
6
7 = very much; the job is set up so that I get almost constant “feedback” as I work about how well I am doing
SECTION TWO

Select a number beside each statement, based on the following scale
1 = very inaccurate
2 = mostly inaccurate
3 = slightly inaccurate
4 = uncertain
5 = slightly accurate
6 = mostly accurate
7 = very accurate

How accurate is this statement in describing your job?

1. The job requires me to use a number of complex or high-level skills
2. The job is arranged so that I do not have the chance to do an entire piece of work from beginning to end (R)
3. Just doing the work required by the job provides many chances for me to figure out how well I am doing.
4. The job is quite simple and repetitive (R)
5. This job is one where a lot of other people can be affected by how well the work gets done
6. The job denies me any chance to use my personal initiative or judgment in carrying out the work (R)
7. The job provides me the chance to completely finish the piece of work I begin.
8. The job provides me very few clues about whether or not I am performing well. (R)
9. The job gives me considerable opportunity for independence and freedom in how I do the work.
10. The job itself is not very significant or important in the broader scheme of things (R).
Appendix H

*Organizational Citizenship Measure (Lee & Allen, 2002)*

1. I help others who have been absent.
2. I attend functions that are not required but that help the organizational image.
3. I willingly give my time to help others who have work-related problems.
4. I keep up with developments in the organization.
5. I adjust my work schedule to accommodate other employees’ requests for time off.
6. I defend the organization when other employees criticize it.
7. I go out of the way to make newer employees feel welcome in the work group.
8. I show pride when representing the organization in public.
9. I show genuine concern and courtesy toward coworkers, even under the most trying business or personal situations.
10. I offer ideas to improve the functioning of the organization.
11. I give up time to help others who have work or nonwork problems.
12. I express loyalty toward the organization.
13. I assist others with their duties.
14. I take action to protect the organization from potential problems.
15. I share personal property with others to help their work.
16. I demonstrate concern about the image of the organization.

Note: Odd items are on the Interpersonal subscale, even items are on the Organizational subscale
Appendix I
Social Identity Measure

1. I am accurately described as a typical member of my work group.
2. I acknowledge the fact that I am a member of my work group to others.
3. I would be pleased to be described as a typical member of my work group.
4. I am proud to introduce myself as a member of my work group.
5. I feel a sense of attachment to my work group.
6. I am influenced by members of my work group.
7. My most talented colleagues are in my work group.
8. I am proud to be a part of my work group.
9. My work group is a close-knit unit.
Table 1A
Demographic Frequencies

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| Caucasian         | 232 | 75.0|
| Hispanic          | 5   | 1.6|
| Native American   | 5   | 1.6|
| Other             | 15  | 4.8|

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Note: All numbers in each category do not sum to 312 due to optional reporting
Table 1B  
*Correlations Between Study Variables and Demographics*

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</table>

Note: **p < .01, *p < .05. N = 308.
### Table 2
Means, Standard Deviations, and Correlation Matrix of Study Variables

| Variable                                      | Mean | SD  | 1   | 2  | 3   | 4   | 5   | 6   | 7   | 8   |
|-----------------------------------------------|------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|
| 1. Transformational Leadership Composite      | 12.69| 3.69| (.96)|   |     |     |     |     |     |     |     |
| 2. Idealized Influence - Attributed           | 12.90| 4.20| (.83)| (.93)**|     |     |     |     |     |     |     |
| 5. Intellectual Stimulation                   | 11.93| 3.70| (.80)| (.90)**| (.77)**| (.78)**| (.75)**|     |     |     |     |
| 6. Individualized Consideration               | 12.52| 4.13| (.78)| (.92)**| (.81)**| (.76)**| (.79)**| (.83)**|     |     |     |
| 7. Transactional Leadership Composite         | 11.21| 2.03| (.76)| (.35)**| (.28)**| (.35)**| (.29)**| (.38)**| (.31)**| (.67)| (.)   |
| 9. Management by Exception - Active           | 10.71| 3.53| (.05)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.70)**|
| 10. Management by Exception - Passive         | 10.12| 3.73| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.70)**|
| 11. Laissez-Faire Leadership                  | 8.89 | 4.24| (.15)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 12. Core Self-Evaluation                      | 42.62| 7.25| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 13. Interpersonal Trust - Affect-Based        | 25.29| 7.25| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 14. Interpersonal Trust - Cognitive-Based     | 34.30| 7.25| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 15. Overall Job Satisfaction                  | 16.01| 4.87| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 16. Satisfaction with the Leader              | 24.19| 8.91| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 17. OCB - Interpersonal                       | 43.45| 6.97| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 18. OCB - Organizational                      | 43.02| 8.91| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 19. Motivating Potential Score                | 3941.86| 2068.72| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 20. Task Significance                         | 16.35| 4.68| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 21. Task Variety                              | 14.80| 3.86| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 22. Task Identity                             | 15.32| 4.16| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 23. Autonomy                                  | 15.74| 4.00| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |
| 24. Feedback                                  | 15.03| 3.96| (.07)| (.02)| (.11*)| (.02)| (.12*)| (.01)| (.69)**| (.06)| (.)    |

Note: N = 312. *p < .05. **p < .01. SD = Standard Deviation. OCB = Organizational Citizenship Behavior.
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<td>.48**</td>
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<td>.30**</td>
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<td>.46**</td>
<td>.43**</td>
<td>.39**</td>
<td>.51**</td>
<td>(.73)</td>
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Table 3  
Hierarchical Linear Regression Results for Hypotheses 3 and 4 (N = 312)  

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Job Satisfaction</th>
<th>Satisfaction with the Leader</th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td>Core Self-Evaluation</td>
<td>0.22</td>
<td>0.03</td>
</tr>
<tr>
<td>Transformational Leadership Composite</td>
<td>0.46</td>
<td>0.06</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Self-Evaluation</td>
<td>0.24</td>
<td>0.03</td>
</tr>
<tr>
<td>Transformational Leadership Composite</td>
<td>0.48</td>
<td>0.06</td>
</tr>
<tr>
<td>Interaction Term</td>
<td>-0.03</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note. For overall job satisfaction, $R^2 = .36$ for Step 1; $\Delta R^2 = .03$ for Step 2 ($ps < .01$). For satisfaction with the leader, $R^2 = .57$ for Step 1; $\Delta R^2 = .01$ for Step 2 ($ps < .01$). *$p < .05$. **$p < .01$. 
Table 4  
*Fit Indices for SEM Models*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>CFI</th>
<th>RMSEA</th>
<th>SRMR</th>
<th>$\Delta \chi^2_{\text{diff}}$</th>
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<tr>
<td>1. Fully mediated model</td>
<td>499.80**</td>
<td>.91</td>
<td>.10</td>
<td>.11</td>
<td></td>
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<tr>
<td>1b. Fully mediated model (correlated disturbances)</td>
<td>386.77**</td>
<td>.93</td>
<td>.09</td>
<td>.08</td>
<td>113.03**</td>
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<td>Difference between Model 1 and Model 1b</td>
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<tr>
<td>2. Partially mediated model</td>
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<td>.91</td>
<td>.10</td>
<td>.11</td>
<td></td>
</tr>
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<td>2b. Partially mediated model (correlated disturbances)</td>
<td>377.08**</td>
<td>.93</td>
<td>.09</td>
<td>.08</td>
<td>116.62**</td>
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<tr>
<td>Difference between Model 2 and Model 2b</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Difference between Model 1b and 2b</td>
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<td></td>
<td></td>
<td></td>
<td>9.69*</td>
</tr>
<tr>
<td>3. Trimmed model</td>
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<td>.93</td>
<td>.09</td>
<td>.08</td>
<td></td>
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<tr>
<td>Difference between Model 2b and Model 3</td>
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<td>1.53</td>
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Note: N = 312 for all models. *p < .05. **p < .01.
Table 5  
Hierarchical Linear Regression for Contingent Reward (N = 312)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Job Satisfaction</th>
<th></th>
<th></th>
<th>Satisfaction with the Leader</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
<td>β</td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Core Self-Evaluation</td>
<td>0.24</td>
<td>0.03</td>
<td>.34**</td>
<td>0.18</td>
<td>0.05</td>
</tr>
<tr>
<td>Transformational Composite</td>
<td>0.39</td>
<td>0.06</td>
<td>.38**</td>
<td>1.45</td>
<td>0.10</td>
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<tr>
<td>Step 2</td>
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<tr>
<td>Core Self-Evaluation</td>
<td>0.25</td>
<td>0.03</td>
<td>.41**</td>
<td>0.20</td>
<td>0.05</td>
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<tr>
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<td>0.41</td>
<td>0.06</td>
<td>.36**</td>
<td>1.48</td>
<td>0.10</td>
</tr>
<tr>
<td>Interaction Term</td>
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<td>0.01</td>
<td>-.14**</td>
<td>-0.03</td>
<td>0.01</td>
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</table>

Note. For overall job satisfaction, $R^2 = .34$ for Step 1; $\Delta R^2 = .02$ for Step 2 ($p < .01$). For satisfaction with the leader, $R^2 = .48$ for Step 1; $\Delta R^2 = .01$ for Step 2 ($p < .01$). *$p < .05$. **$p < .01$. 


<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Job Satisfaction</th>
<th>Satisfaction with the Leader</th>
<th>Organizational Citizenship Behaviors</th>
<th>Perception of Core Job Characteristics</th>
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<td>.36**</td>
<td>.53**</td>
<td>.49**</td>
<td>.36**</td>
</tr>
<tr>
<td>Laissez-Faire Leadership Behaviors</td>
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<td>-.41**</td>
<td>.11</td>
<td>.11</td>
</tr>
<tr>
<td>Step 2</td>
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<td></td>
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<tr>
<td>Transactional Leadership Behaviors</td>
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<td>-.13**</td>
<td>.07</td>
<td>-.16*</td>
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<tr>
<td>Step 1</td>
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<tr>
<td>Transformational Leadership Behaviors</td>
<td>.17**</td>
<td>.28**</td>
<td>.32**</td>
<td>.11*</td>
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<td>Laissez-Faire Leadership Behaviors</td>
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<td>-.64**</td>
<td>.07</td>
<td>-.27**</td>
</tr>
<tr>
<td>Step 2</td>
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<td></td>
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</tr>
<tr>
<td>Transformational Leadership Behaviors</td>
<td>.40**</td>
<td>.63**</td>
<td>.43**</td>
<td>.48**</td>
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</table>

Note: Standardized regression coefficients are presented. **p < .01. *p < .05.
Table 7
*Means, Standard Deviations, and Correlation of Study Variables (N = 498 item mean replaced)*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td>.66**</td>
<td>.69</td>
<td></td>
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</tr>
<tr>
<td>3. Core Self-Evaluation</td>
<td>42.48</td>
<td>7.22</td>
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<td>.74**</td>
<td>.42**</td>
<td>.32**</td>
<td>(.93)</td>
<td></td>
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</tr>
<tr>
<td>5. Overall Job Satisfaction</td>
<td>15.92</td>
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<td>.27**</td>
<td>.50**</td>
<td>.55**</td>
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<tr>
<td>6. Satisfaction with the Leader</td>
<td>24.18</td>
<td>8.70</td>
<td>.36**</td>
<td>.85**</td>
<td>.59**</td>
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<td>.50**</td>
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<td>(.91)</td>
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<td>2086.13</td>
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<td>.46**</td>
<td>.34**</td>
<td>.49**</td>
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</table>

Note. *p < .05, **p < .01. Internal consistency estimates presented along the diagonal. OCB = Organizational citizenship behaviors. MPS = Motivating potential score.
### Table 8

*Hierarchical Linear Regression Results for Hypotheses 3 and 4 (N = 498 item mean replaced)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Job Satisfaction</th>
<th>Satisfaction with the Leader</th>
</tr>
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<td>B</td>
<td>SE B</td>
</tr>
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<td><strong>Step 1</strong></td>
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<tr>
<td>Core Self-Evaluation</td>
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<td>0.02</td>
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<tr>
<td>Transformational Leadership Composite</td>
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<td>0.05</td>
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<td><strong>Step 2</strong></td>
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</tr>
<tr>
<td>Core Self-Evaluation</td>
<td>0.24</td>
<td>0.02</td>
</tr>
<tr>
<td>Transformational Leadership Composite</td>
<td>0.52</td>
<td>0.03</td>
</tr>
<tr>
<td>Interaction Term</td>
<td>-0.03</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note. For overall job satisfaction, $R^2 = .38$ for Step 1; $\Delta R^2 = .03$ for Step 2 ($ps < .01$). For satisfaction with the leader, $R^2 = .53$ for Step 1; $\Delta R^2 = .01$ for Step 2 ($ps < .01$). **$p < .01$.**
Table 9  
*Means, Standard Deviations, and Correlation of Study Variables* (N = 498 item mean replaced)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transformational Composite</td>
<td>12.83</td>
<td>3.48</td>
<td>.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Transactional Composite</td>
<td>12.00</td>
<td>2.70</td>
<td>.66**</td>
<td>(.69)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Core Self-Evaluation</td>
<td>42.48</td>
<td>7.22</td>
<td>.34**</td>
<td>.13**</td>
<td>(.85)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interpersonal Trust - Affect</td>
<td>23.73</td>
<td>8.05</td>
<td>.74**</td>
<td>.42**</td>
<td>.32**</td>
<td>(.93)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Overall Job Satisfaction</td>
<td>15.92</td>
<td>4.48</td>
<td>.51**</td>
<td>.27**</td>
<td>.50**</td>
<td>.54**</td>
<td>(.88)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Satisfaction with the Leader</td>
<td>24.18</td>
<td>8.70</td>
<td>.71**</td>
<td>.35**</td>
<td>.36**</td>
<td>.84**</td>
<td>.59**</td>
<td>(.94)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. OCB</td>
<td>85.92</td>
<td>14.13</td>
<td>.46**</td>
<td>.32**</td>
<td>.39**</td>
<td>.52**</td>
<td>.50**</td>
<td>.39**</td>
<td>(.91)</td>
<td></td>
</tr>
<tr>
<td>8. MPS</td>
<td>3937.07</td>
<td>2086.13</td>
<td>.40**</td>
<td>.16**</td>
<td>.44**</td>
<td>.36**</td>
<td>.46**</td>
<td>.34**</td>
<td>.49**</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. *p < .05, **p < .01. Internal consistency estimates presented along the diagonal. OCB = Organizational citizenship behaviors. MPS = Motivating potential score.
Table 10
Hierarchical Linear Regression Results for Hypotheses 3 and 4 (N = 498 scale mean replaced)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Job Satisfaction</th>
<th></th>
<th>Satisfaction with the Leader</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
<td>β</td>
<td>B</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Self-Evaluation</td>
<td>0.23</td>
<td>0.02</td>
<td>.37**</td>
<td>0.16</td>
</tr>
<tr>
<td>Transformational Leadership Composite</td>
<td>0.49</td>
<td>0.05</td>
<td>.39**</td>
<td>1.67</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Self-Evaluation</td>
<td>0.24</td>
<td>0.02</td>
<td>.39**</td>
<td>0.17</td>
</tr>
<tr>
<td>Transformational Leadership Composite</td>
<td>0.51</td>
<td>0.03</td>
<td>.40**</td>
<td>1.68</td>
</tr>
<tr>
<td>Interaction Term</td>
<td>-0.03</td>
<td>0.01</td>
<td>-.16**</td>
<td>-0.03</td>
</tr>
</tbody>
</table>

Note. For overall job satisfaction, $R^2 = .39$ for Step 1; $\Delta R^2 = .03$ for Step 2 ($ps < .01$). For satisfaction with the leader, $R^2 = .52$ for Step 1; $\Delta R^2 = .01$ for Step 2 ($ps < .01$). **$p < .01$. 
Figure 1
Theoretical Model

Transformational Leadership Behaviors

Transactional Leadership Behaviors

Affect-based Trust in Leader

Follower Core Self-Evaluation

• Follower Perceptions of Core Job Characteristics
• Follower Organizational Citizenship Behaviors

• Follower Job Satisfaction
• Follower Satisfaction with the Leader
Figure 2
Theoretical Models from Kerr and Jermier (1978)

Leadership Only Model

Mediation Model

Substitutes Only Model

Moderator Model

Joint Effects Model
Figure 3
*Simple Slopes – Transformational Leadership x Core Self Evaluation on Job Satisfaction*

![Graph showing the relationship between Transformational Leadership and Follower Job Satisfaction for High, Average, and Low Core Self Evaluation (CSE). The graph illustrates the minimum and maximum observed values for each level of CSE.](image-url)
Figure 4
Simple Slopes – Transformational Leadership x Core Self-Evaluation on Satisfaction with the Leader
Figure 5
Model 1b

Note: Correlated disturbances not shown
Figure 6
Model 2b

Transform. Leadership Behaviors → Affect-Based Trust in the Leader

- .19*
- .05
- .85**
- .07
- .30*

Affect-Based Trust in the Leader →
- Org. Citizenship Behaviors
- Overall Follower Job Satisfaction
- Follower Satisfaction w/ the Leader
- Core Job Characteristics

Note: Correlated disturbances not shown
Figure 7
Model 3

Note: Correlated disturbances not shown
Figure 8
Simple Slopes – Contingent Reward x Core Self-Evaluation on Job Satisfaction

Contingent Reward

Follower Job Satisfaction

High CSE
Average CSE
Low CSE

Minimum Observed Value

Maximum Observed Value
Figure 9
Simple Slopes – Contingent Reward x Core Self-Evaluation on Satisfaction with the Leader

Contingent Reward

Follower Satisfaction with the Leader

Minimum Observed Value

Maximum Observed Value

High CSE

Average CSE

Low CSE

5

10

15

20

25

30

35

40