

TRANSFORMATIONAL LEADERSHIP AND JOB BEHAVIORS: THE MEDIATING ROLE OF CORE JOB CHARACTERISTICS

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Although the effects of transformational leadership on task performance and organizational citizenship behavior (OCB) are well-documented, the mechanisms that explain those effects remain unclear. We propose that transformational leadership is associated with the way followers view their jobs, in terms of Hackman and Oldham's (1976) core job characteristics. Results of our study support a structural model whereby indirect effects supplement the direct effects of transformational leadership on task performance and OCB through the mechanisms of job characteristics, intrinsic motivation, and goal commitment. Additional analyses revealed that transformational leadership relationships were significantly stronger for followers who perceived high-quality leader-member exchange.

Over the past two decades, transformational leadership has emerged as one of the most popular approaches to understanding leader effectiveness. Transformational leadership theory rests on the assertion that certain leader behaviors can arouse followers to a higher level of thinking (Bass, 1985; Burns, 1978). By appealing to followers' ideals and values, transformational leaders enhance commitment to a well-articulated vision and inspire followers to develop new ways of thinking about problems. Indeed, the positive association between transformational leadership and follower behaviors is well documented (Fuller, Patterson, Hester, & Stringer, 1996; Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996), and studies have begun to examine the process by which those effects are ultimately realized (e.g., Bono & Judge, 2003; Dvir, Eden, Avolio, & Shamir, 2002; Kark, Shamir, & Chen, 2003).

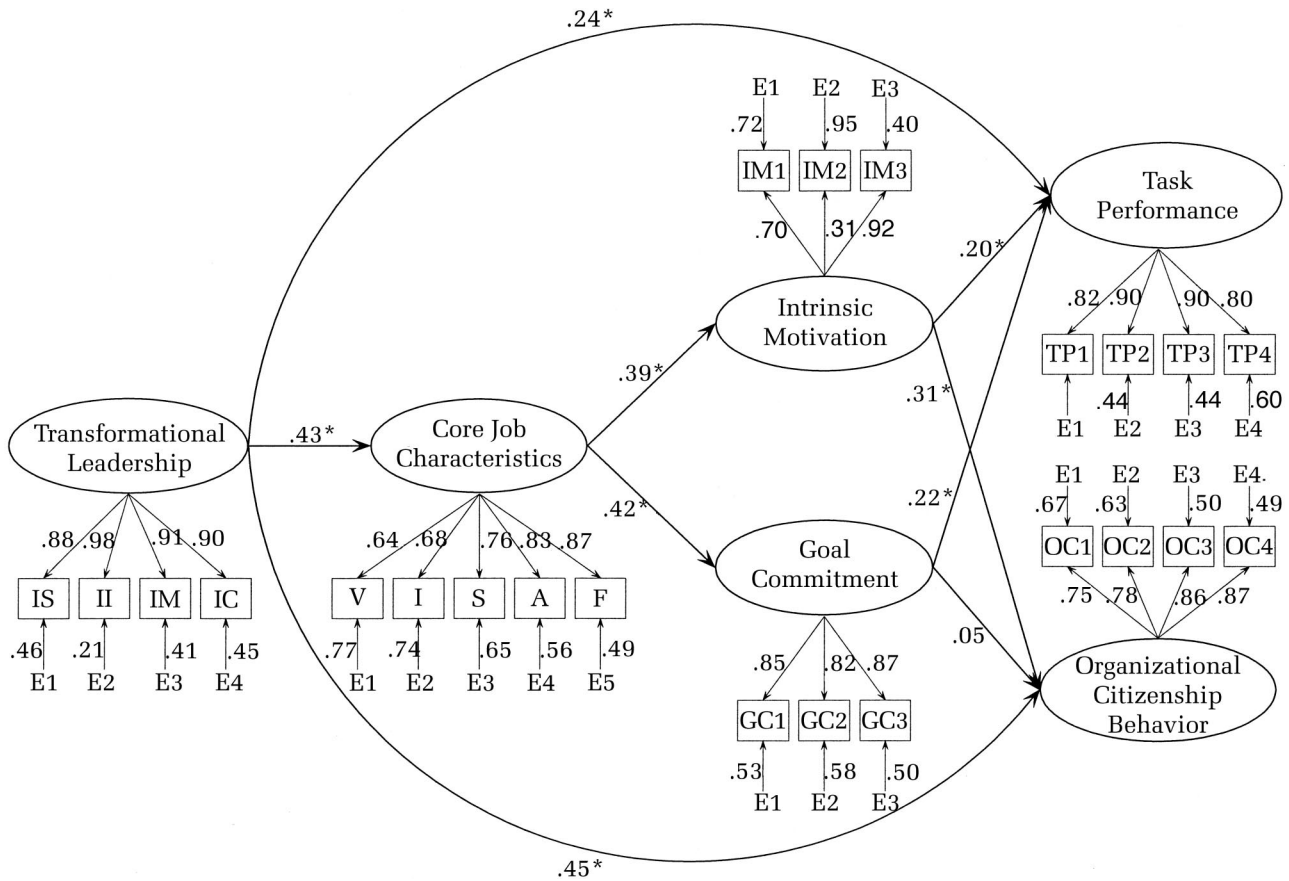
A central tenet of the transformational approach is that such effects are transmitted through follower reactions to a leader. Early studies of the transformational process, therefore, tended to emphasize the mediating role of followers' attitudes toward leaders, such as trust, satisfaction, personal identification, and perceived fairness (e.g., Kark et al.,

2003; Pillai, Schreishem, & Williams, 1999; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Other studies have suggested that transformational effects are explained by how followers come to feel about themselves or their group, in terms of self-efficacy or group potency (Bono & Judge, 2003; Shamir, House, & Arthur, 1993; Sosik, Avolio, & Kahai, 1997).

We propose a different mechanism for explaining the effects of transformational leaders—one rooted not in perceptions of leader or self, but rather, rooted in the job. One of the more powerful influences a leader can have on followers is in the “management of meaning” (Smircich & Morgan, 1982), as leaders define and shape the “reality” in which followers work. Hackman and Oldham's (1976, 1980) five core job characteristics—variety, identity, significance, autonomy, and feedback—offer one means of capturing key facets of that reality. We therefore tested the model shown in Figure 1, in which the direct effects of transformational leadership on task performance and organizational citizenship behavior (OCB) are supplemented by effects on followers' perceptions of core job characteristics. Those perceptions then go on to predict intrinsic motivation and goal commitment, which are themselves related to the two outcomes. This study therefore offers a unique integration of two of the more visible literatures in the organizational behavior domain: transformational leadership and job characteristics theory.

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FIGURE 1
Proposed Model of Transformational Leadership and Core Job Characteristic Effects



EXPLAINING TRANSFORMATIONAL LEADERSHIP EFFECTS

Since its introduction by Burns (1978) and Bass (1985), transformational leadership theory has evolved to describe four dimensions of leader behavior. *Idealized influence* is the degree to which leaders behave in charismatic ways that cause followers to identify with them. *Inspirational motivation* is the degree to which leaders articulate visions that are appealing to followers. *Intellectual stimulation* is the degree to which leaders challenge assumptions, take risks, and solicit followers' ideas. *Individualized consideration* is the degree to which leaders attend to followers' needs, act as mentors or coaches, and listen to followers' concerns.

Of all the transformational leadership effects, perhaps the most often studied are its associations with beneficial job behaviors. Transformational leaders have the ability to raise follower task performance while also encouraging OCB—those “extra-role” behaviors that are discretionary and not directly recognized by an organization’s formal re-

ward system, and that help improve organizational functioning (Smith, Organ, & Near, 1983). As three separate meta-analytic reviews have summarized (Fuller et al., 1996; Judge & Piccolo, 2004; Lowe et al., 1996), the transformational leadership dimensions have displayed strong and consistent correlations with task performance and OCB across organizations.

According to Bass (1985), transformational leaders provide constructive feedback to their followers, convince followers to exhibit extra effort, and encourage followers to think creatively about complex problems. As a result, followers tend to behave in ways that facilitate high levels of task performance. In addition, transformational leaders make their organizations’ missions salient and persuade followers to forgo personal interests for the sake of the collective. When followers equate their own success with that of their organizations’ and identify with the organizations’ values and goals, they become more willing to cooperate in order to make a positive contribution to the work context (Podsakoff et al., 1990).

Hypothesis 1. Transformational leadership is positively related to follower task performance and OCB.

Transformational Leadership and Core Job Characteristics

Of course, the contribution of the present study lies not in testing Hypothesis 1, but rather in exploring whether core job characteristics provide one mechanism for explaining those effects. Hackman and Oldham (1976) introduced job characteristics theory to explain conditions in which employees would be intrinsically motivated when performing a job. According to the theory, organizations can encourage positive work attitudes and increased work quality by enhancing jobs along five dimensions. These include *variety* (the degree to which a job requires the use of a number of different skills and talents); *identity* (the degree to which the job requires completion of a “whole” piece of work, or doing a task from beginning to end with a visible outcome); *significance* (the degree to which the job has a substantial impact on the lives of other people); *autonomy* (the degree to which the job provides substantial freedom); and *feedback* (the degree to which the job provides clear information about performance levels).

Although perceptions of core job characteristics are clearly dependent on structural aspects of one’s formal job description, transformational leaders can foster such perceptions through their own actions. Smircich and Morgan suggested that leaders influence followers by “mobilizing meaning, articulating and defining what has previously remained implicit or unsaid, by inventing images and meanings that provide a focus for new attention, and by consolidating, confronting, or changing prevailing wisdom” (1982: 258). Leaders “frame” or “bracket” followers’ work experiences to create a new point of reference for understanding the day-to-day flow of work (Goffman, 1974; Schutz, 1967; Smircich & Morgan, 1982).

This “management of meaning” perspective on leadership is similar to the social information processing model introduced by Salancik and Pfeffer (1978). These authors suggested that individuals rely on informational cues from their social contexts when making assessments about work environments. Leaders, for example, as central characteristics of a work context, are relevant information points when followers make judgments about their jobs. Both Salancik and Pfeffer (1978) and Griffin, Bateman, Wayne, and Head (1987) argued that job perceptions do not depend exclusively on objective characteristics of actual jobs, but instead on social

constructions of the information available to workers at the time they make judgments.

Griffin (1981) was among the first to test the notion that leaders can influence job perceptions without making any adjustments to objective job characteristics. He argued that individual task perceptions stem from five basic sources of information: (1) technology, (2) organizational structure, (3) coworkers, (4) characteristics of a job incumbent and—most relevant in the current study—(5) an individual’s immediate supervisor. In Griffin’s study of leader behaviors and job characteristics, managers reported the extent to which they exhibited behaviors intended to influence job perceptions. Three months later, subordinates in an experimental group reported higher ratings of core job characteristics, even though no tangible changes to their actual jobs had been made. Griffin (1981) explained these results by suggesting that informational cues from supervisors may have caused employees to perceive their tasks differently.

Transformational leaders may play a particularly strong role in the management of meaning and social information. Shamir and his coauthors (1993) suggested that leaders who exhibit transformational behaviors can influence how followers judge a work environment by using verbal persuasion and by clearly communicating the value of an organization’s mission. Similarly, Bono and Judge (2003) suggested that transformational leaders help followers view work goals as congruent with their own values. There are reasons to expect that the same management of meaning processes may be used to influence job perceptions.

In addition, many of the behaviors subsumed by the transformational pattern have direct implications for levels of core characteristics. Leaders who utilize intellectual stimulation by seeking new perspectives and developing new ways to perform job tasks may enhance follower perceptions of variety and autonomy. Leaders who engage in individualized consideration by coaching and teaching should have followers who see more autonomy and feedback in their jobs. When leaders engage in idealized influence (by emphasizing the moral and ethical consequences of work decisions) or inspirational motivation (by articulating a compelling vision of the future), followers may view their jobs as more significant. Shamir and colleagues (1993) provided indirect support for these assertions by suggesting that leaders who appeal to ideological values and engage in intellectual stimulation interject meaningfulness into their organization and their followers’ work.

Hypothesis 2. Transformational leadership is positively related to follower perceptions of core job characteristics.

Effects of Core Job Characteristics

One of the central predictions of job characteristics theory is that enhanced core job characteristics are associated with higher levels of what Hackman and Oldham termed “internal motivation,” described as a “self-perpetuating cycle of positive work motivation driven by self-generated (rather than external) rewards for good work” (1980: 72). The authors likened internal motivation to Csikszentmihalyi’s (1975) “flow” concept and Deci’s discussion of “intrinsic motivation,” described as involvement in “an ongoing process of seeking and conquering challenges” (1975: 131). Our model uses Deci’s intrinsic motivation terminology, which has come to be the more common label in the larger motivation literature (e.g., Kanfer, 1991).

Comprehensive summaries of the literature on job characteristics theory have provided support for the notion that jobs regarded as challenging, important, and autonomous are more intrinsically motivating. For example, Fried and Ferris (1987) meta-analyzed over 200 studies and reported corrected correlations ranging from .22 to .52 between the five core characteristics and intrinsic motivation. Path analysis studies have suggested that the intrinsic motivation effects are driven by multiple characteristics and are particularly reliant on the characteristics that create perceived meaningfulness in one’s job (Johns, Xie, & Fang, 1992).

Hypothesis 3. Follower perceptions of core job characteristics are positively related to follower intrinsic motivation.

Hackman and Oldham (1980) argued that employees who are intrinsically motivated engage in higher levels of task performance because performing well creates positive affect. Staw (1977) made a similar argument, suggesting that intrinsically motivated individuals derive satisfaction from task accomplishment and therefore work harder to excel. Although these arguments apply most obviously to work quality, Hackman and Oldham (1980) also provided conceptual arguments for the effects of intrinsic motivation on work quantity. Specifically, the authors argued that intrinsic motivation should reduce the forms of task withdrawal (e.g., daydreaming, breaks, socializing) that slow work efforts. Kanfer (1991) made a similar point, noting that one of the key mechanisms for explaining the performance effects of intrinsic motivation is consistency of task engagement. Intrinsically moti-

vated individuals are more likely to choose to work on particular tasks at a given moment. Indeed, that engagement not only increases work quantity over time, but can also improve the acquisition of task-related skills, thereby affecting work quality (Kanfer, 1991).

Unfortunately, these types of arguments have received very little empirical testing. Most of the research on intrinsic motivation in the larger motivation literature has treated it as a dependent variable and used either job characteristics or the presence of extrinsic rewards as predictors of motivated behavior (see Fried and Ferris [1987] and Deci, Koestner, and Ryan [1999] for meta-analytic reviews). The most recent studies linking intrinsic motivation with task performance have come out of the related area of psychological empowerment (e.g., Thomas & Velthouse, 1990). For example, Spreitzer (1995) linked the empowerment version of intrinsic motivation to subordinate perceptions of managerial task performance in an industrial firm.

Research relating intrinsic motivation to OCB is surprisingly rare, yet there appear to be natural links between the two constructs. Individuals likely execute discretionary behaviors that go beyond the formal requirements of a job to satisfy some higher-order individual need or to align work behavior with individual values. Because such behaviors are less likely to be formally rewarded than are required job behaviors, they are presumably performed for self-generated, intrinsic reasons. Some support for this assertion was found by Lee and Allen (2002), who linked “intrinsic cognitions” to some forms of OCB, and by Rioux and Penner (2001), who linked the outcome to an organizational concern motive that captured, among other things, having a genuine interest in work.

Hypothesis 4. Follower intrinsic motivation is positively related to follower task performance and OCB.

Our model also draws a link between job characteristics and goal commitment in explicating the reasons for transformational effects. Following Locke, Shaw, Saari, and Latham (1981), Hollenbeck, Williams, and Klein defined goal commitment as “the determination to try for a goal and the persistence in pursuing it over time” (1989: 18). We are not aware of any research linking the five core job characteristics to goal commitment, but there are conceptual reasons to expect a relationship. Klein, Wesson, Hollenbeck, and Alge (1999), for example, identified antecedents of goal commitment beyond expectancy and goal attainment, the two most proximal drivers of commitment. Among those antecedents was *volition*, which overlaps

substantially with autonomy, and performance *feedback*, which is a central aspect of job characteristics theory. Both volition and feedback were proposed to have an influence on goal commitment through their effects on expectations of goal attainment. Thus, by shaping expectancies for accomplishment of work-related goals, core characteristics appear to be linked to expressions of goal commitment.

Hypothesis 5. Follower perceptions of core job characteristics are positively related to follower goal commitment.

In most studies of goal setting theory, goal commitment has been regarded as a moderator of the relationship between goal difficulty and performance. However, Locke, Latham, and Erez (1988) suggested that goal commitment would also have a direct link to performance and introduced a model of job performance with goal commitment as the most proximal predictor. Drawing on earlier work by Salancik (1977), the authors noted that commitment is the binding of individuals to specific behavioral acts. Thus, individuals who are more committed to goals should try harder to achieve them and persist in that effort longer (Locke et al., 1988). Such persistence is one of the most powerful drivers of task performance (Locke & Latham, 2002). In support of this view, two meta-analyses concluded that goal commitment does indeed have a positive, moderate relationship with task performance (Klein et al., 1999; Wofford, Goodwin, & Premack, 1992).

In contrast, the relationship between goal commitment and OCB remains unclear and untested. On the one hand, many individual goals do not include a citizenship component, and extra-role behaviors that distract from goal-based duties might hinder the achievement of such goals. On the other hand, group- or organization-level goals inherently encourage cooperation and helping behaviors among employees, and a commitment to those goals should facilitate altruistic behaviors that are not directly rooted in an individual's job description. Indeed, a leader's ability to foster acceptance of group goals is a strong predictor of OCB (Podsakoff, MacKenzie, Paine, & Bachrach, 2000).

Hypothesis 6. Follower goal commitment is positively related to follower task performance and OCB.

Alternative Models

In summary, we propose that the relationship between transformational leadership and beneficial

job behaviors (task performance and OCB) is partially mediated by perceptions of core job characteristics, which are related to intrinsic motivation and goal commitment. The model in Figure 1 therefore offers a new, relatively unexplored set of mechanisms for transformational effects on job behaviors. Of course, one could envision alternate structures for Figure 1 that could also have merit. For example, it may be that the job characteristics mechanisms fully mediate transformational effects, suggesting that direct paths to task performance and OCB should be dropped. On the other hand, it may be that Figure 1 understates the direct effects of transformational leadership, which may have direct links with goal commitment and intrinsic motivation (Shin & Zhou, 2003). We therefore tested two alternate models that provide different representations of transformational effects. Figure 2 depicts these alternate models.

Potential Boundary Condition

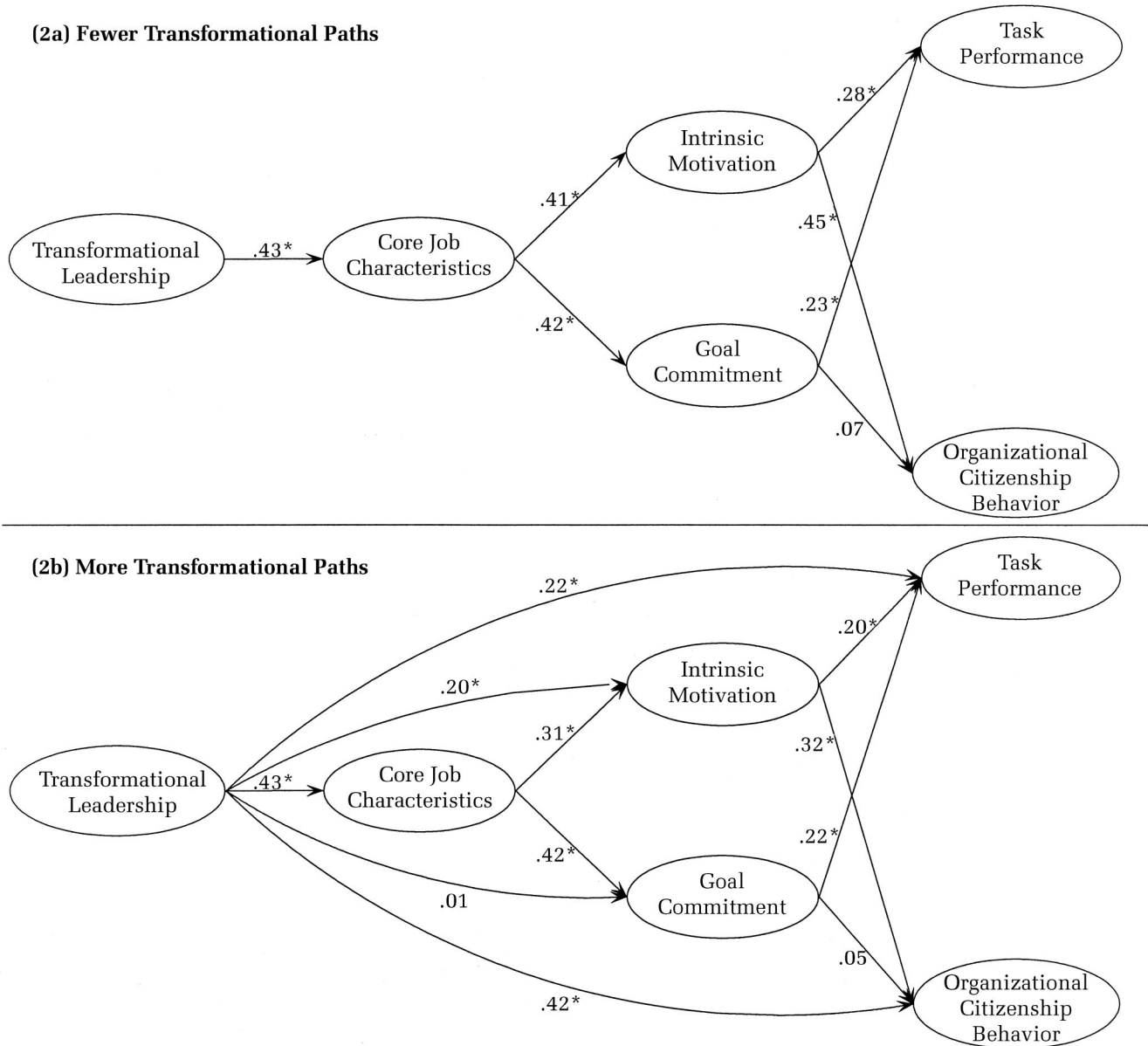
In addition, we explored a potential "boundary condition" for transformational effects. In describing leaders as managers of meaning, Smircich and Morgan noted that some followers can choose to resist such management, writing that leadership "involves a complicity or process of negotiation through which certain individuals, implicitly or explicitly, surrender their power to define the nature of their experience to others. Indeed, leadership depends on the existence of individuals willing, as a result of inclination or pressure, to surrender, at least in part, the powers to shape and define their own reality" (Smircich & Morgan, 1982: 258). This reasoning implies that some followers are resistant to transformational behaviors. One construct that could capture such resistance is leader-member exchange (LMX) quality (Graen & Uhl-Bien, 1995). Followers in high-quality LMX relationships report high levels of trust in leaders and commitment to their visions, so they may be more responsive to transformational behaviors. In contrast, followers in low-quality LMX relationships have formal, impersonal communication patterns with leaders that could prove insufficient for transmitting changes in job perceptions.

METHODS

Respondents

Respondents included 283 individuals from a broad cross-section of job types. The most common job categories were administration/support (11%), Web design and computer networking/technology

FIGURE 2
Alternate Models of Transformational Leadership and Core Job Characteristic Effects



(10%), and education/training (9%); but as participants were drawn from multiple organizations in several industries, we cannot assert that the sample is representative of any definable population. Forty-four percent of the respondents were men, 56 percent were women, and 78 percent were Caucasian. Their average age was 34 years, and their average tenure in their current jobs was 7 years. We recruited respondents from the StudyResponse service (Stanton & Weiss, 2002), a nonprofit academic service that attempts to match researchers in need of samples with individuals willing to complete surveys. In exchange for this service, the StudyResponse researchers examine the relationship be-

tween study characteristics (e.g., survey length) and survey effectiveness (e.g., response rate, missing data rates). As of the most recent update (August 10, 2005), 95,574 individuals had registered with the StudyResponse service.

For the present study, recruits were limited to full-time employees who reported to a supervisor. A random sample of 1,491 such employees was generated. The StudyResponse staff sent out recruitment e-mails with links to an online survey. In accordance with our Institutional Review Board's protocols, participants were told that the research was voluntary and that the study pertained to "the relationship between job attitudes and job behav-

iors.” Respondents were further told that they would receive a \$10 Amazon.com gift certificate if they filled out the survey and their supervisors filled out a shorter set of questions. Respondents signed on to the online survey using their StudyResponse ID number, which was the only identifier included with their data. Once the participants had filled out their survey, they e-mailed their supervisors a link to the supervisory survey, so the supervisor data were identified with the same ID numbers. A total of 283 individuals completed the self-survey, resulting in a response rate of 19 percent. Of these, 217 had supervisors who filled out the supervisor survey; thus, the overall response rate was 15 percent.

Measures

Unless otherwise indicated, all measures used a response scale in which 1 was “strongly disagree” and 5 was “strongly agree.”

Transformational leadership. The four dimensions of transformational leadership were measured with items from the Multifactor Leadership Questionnaire (MLQ Form 5X; Bass & Avolio, 1995). Four items were used to measure intellectual stimulation (e.g., “My supervisor . . . seeks differing perspectives when solving problems”), inspirational motivation (e.g., “. . . articulates a compelling vision of the future”), and individualized consideration (e.g., “. . . treats me as an individual rather than just a member of a group”). Eight items were used to measure idealized influence (e.g., “. . . instills pride in me for being associated with him/her”). Transformational leadership was measured at the individual level because the level of theory—dictated by the outcome variables—was at the individual level (Rousseau, 1985).

Job characteristics. The ten Likert items from the revised form of the Job Diagnostic Survey (Idaszak & Drasgow, 1987; see Hackman & Oldham, 1974) were used. On a seven-point scale (1, “very inaccurate,” to 7, “very accurate”), participants indicated the accuracy of statements such as, “The job requires me to use a number of complex high-level skills” (variety), “The job provides me the chance to completely finish the pieces of work I begin” (identity), “The job is very significant and important in the broader scheme of things” (significance), “The job gives me considerable opportunity for independence and freedom in how I do the work” (autonomy), and “After I finish a job, I know whether I have performed well” (feedback).

Intrinsic motivation. This variable was measured with four items developed by Hackman and Oldham (1974). Sample items are, “My opinion of

myself goes up when I do this job well” and “I feel bad and unhappy when I discover that I have performed poorly on this job.”

Goal commitment. The five items validated by Klein, Wesson, Hollenbeck, Wright, and DeShon (2001), based on the earlier work of Hollenbeck, Klein, O’Leary, and Wright (1989), were used. Sample items (both reverse-coded) are, “It’s hard to take my work goals seriously” and “Quite frankly, I don’t care if I achieve my work goals or not.”

LMX. This was assessed using Graen and Uhl-Bien’s (1995) seven-item scale. Sample items are, “How would you characterize your working relationship with your supervisor?” (1, “extremely ineffective,” to 5, “extremely effective”) and “How well does your supervisor recognize your potential?” (1, “not at all,” to 5, “fully”).

Task performance. Supervisors were asked to complete the seven-item scale developed by Williams and Anderson (1991). Supervisors indicated the extent to which they agreed with statements about their subordinates’ performance, such as, “This employee . . . adequately completes assigned duties” and “. . . fulfills responsibilities specified in his/her job description.”

OCB. Supervisors also completed the 16-item measure of OCB published by Lee and Allen (2002), indicating the extent to which they agreed with statements about their subordinates’ behavior. Items included, “This employee . . . helps others who have been absent,” “. . . assists others with their duties,” “. . . attends functions that are not required but that help the organizational image,” and “. . . offers ideas to improve the functioning of the organization.”

Measurement model. Confirmatory factor analyses revealed the existence of coding factors in scales on which minorities of items were worded in an opposite direction (i.e., were reverse-coded; see Schmitt and Stults [1985] for a discussion of this common problem). These items exhibited lower factor loadings and/or highly correlated error terms. We therefore dropped the negatively worded item in the intrinsic motivation scale, both positively worded items in the goal commitment scale, and both negatively worded items in the task performance scale. Our analyses also revealed an unacceptably low loading for a task performance item with vague item content (“Engages in activities that will directly affect his/her performance”), so this item was also dropped. The four facet scores were used as manifest indicators of the latent transformational leadership factor, and the same technique was used to represent job characteristics. Given the length of the OCB scale, we used four 4-item parcels as manifest indicators of the latent variable.

The resulting measurement model provided an adequate fit to the data ($\chi^2[215] = 467.22$; $\chi^2/df = 2.17$; CFI = .93; SRMR = .05; RMSEA = .08).

RESULTS

Table 1 provides the descriptive statistics and correlations for the study variables. We assessed the fit of the structural model in Figure 1 by adding the predicted paths to the measurement model. We allowed the disturbance terms for task performance and OCB to covary in order to provide a noncausal association between the two. The structural model provided an adequate fit to the data ($\chi^2[219] = 481.93$; $\chi^2/df = 2.20$; CFI = .92; SRMR = .07; RMSEA = .08). The path coefficients in Figure 1 supported all of the hypotheses except for Hypothesis 6 (goal commitment and OCB). Transformational leadership was significantly related to task performance and OCB and, more important to this study, transformational leadership was also significantly related to perceptions of core job characteristics, which were related to intrinsic motivation and goal commitment. Intrinsic motivation was then related to both outcomes, while goal commitment was only related to task performance.

We compared the fit of our hypothesized model to the two alternate models in Figure 2. The first model predicted complete mediation of transformational leadership effects, with no direct paths between leadership and the outcomes included. This model exhibited a moderately poorer fit to the data ($\chi^2[221] = 522.66$; $\chi^2/df = 2.36$; CFI = .91; SRMR = .12; RMSEA = .08), and that difference in fit was statistically significant ($\chi^2[2] = 40.73$, $p < .001$). The second model added two other transformational paths, to intrinsic motivation and goal commitment. The fit of this model was almost identical to that of Figure 1 ($\chi^2[217] = 476.76$; $\chi^2/df = 2.20$; CFI = .92; SRMR = .06; RMSEA = .08), with the difference in fit nonsignificant ($\chi^2[2] = 5.17$,

n.s.). Figure 1 therefore displays a more parsimonious model that achieves the same fit level.

As noted in the Introduction, we explored whether LMX moderated the transformational relationships in Figure 1 using moderated regression. Transformational leadership explained 10 percent of the variance in core characteristic perceptions ($p < .001$), with LMX explaining an incremental 1 percent ($p < .10$). The product of the two explained an additional 2 percent ($p < .05$). Transformational leadership explained 9 percent of the variance in task performance ($p < .001$), with LMX explaining an incremental 2 percent ($p < .05$). The product term explained an incremental 8 percent ($p < .001$). Transformational leadership explained 21 percent of the variance in OCB ($p < .001$), with LMX not contributing incremental variance. However, the product term explained an additional 9 percent of the variance ($p < .05$). The plots of these interactions are shown in Figure 3, with each illustrating that transformational leadership relationships are stronger when LMX is high rather than low.

DISCUSSION

In this study, we introduced and tested a model that used job characteristics theory as a tool for explaining the relationship between transformational leadership and beneficial job behaviors. What stands out most from our results is that followers of truly exceptional leaders regarded their jobs as more challenging and important. That is, followers of leaders who engaged in inspirational motivation, idealized influence, intellectual stimulation, and individualized consideration behaviors perceived higher levels of Hackman and Oldham’s (1976, 1980) five core job characteristics (variety, identity, significance, autonomy, and feedback). We had reasoned that transformational leaders could “manage meaning” by using language and imagery to frame followers’ job experiences (Salancik & Pfeffer, 1978; Smircich & Morgan, 1982). This

TABLE 1
Descriptive Statistics and Zero-Order Correlations^a

Variable	α	Mean	s.d.	1	2	3	4	5	6
1. Transformational leadership	.96	3.43	0.87						
2. Core characteristic perceptions	.90	5.20	1.07	.32*					
3. Intrinsic motivation	.68	3.84	0.65	.33*	.25*				
4. Goal commitment	.86	3.96	0.83	.27*	.35*	.52*			
5. Task performance	.93	4.31	0.57	.30*	.36*	.30*	.42*		
6. Organizational citizenship behavior	.94	4.07	0.64	.46*	.41*	.35*	.30*	.64*	
7. Leader-member exchange	.93	3.59	0.94	.70*	.32*	.40*	.33*	.31*	.38*

^a $n = 202$ after listwise deletion of missing data.

* $p < .05$.

FIGURE 3a
Leader-Member Exchange as a Boundary Condition of Transformational Leadership Effects on Core Characteristic Perceptions

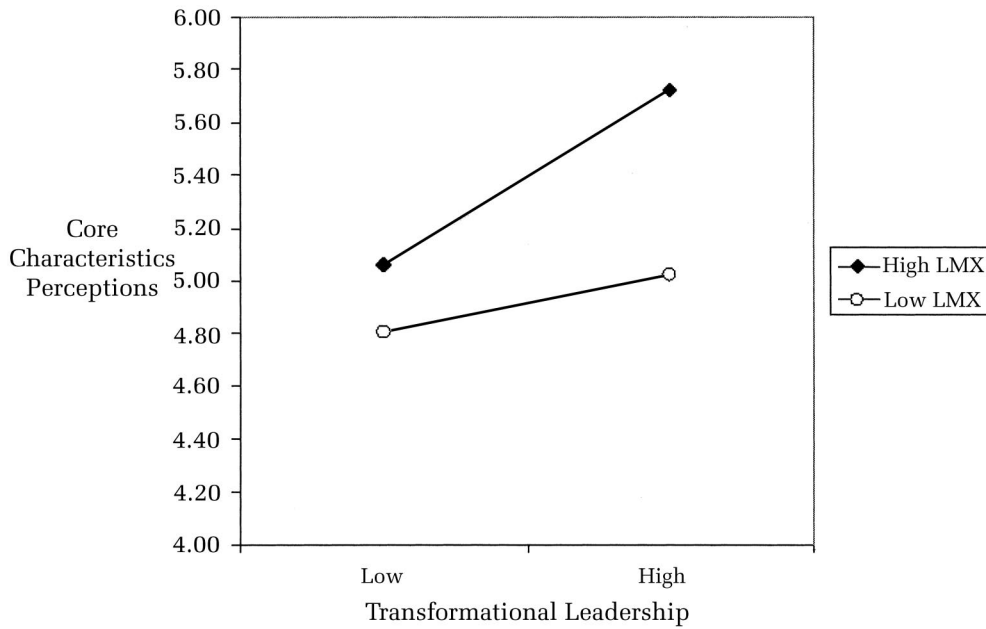
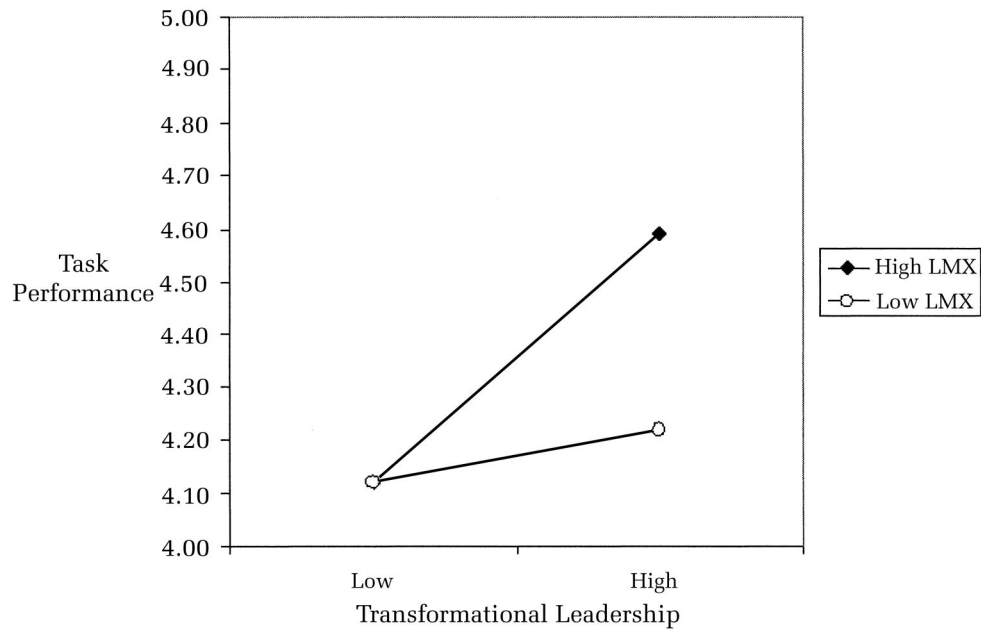


FIGURE 3b
Leader-Member Exchange as a Boundary Condition of Transformational Leadership Effects on Task Performance

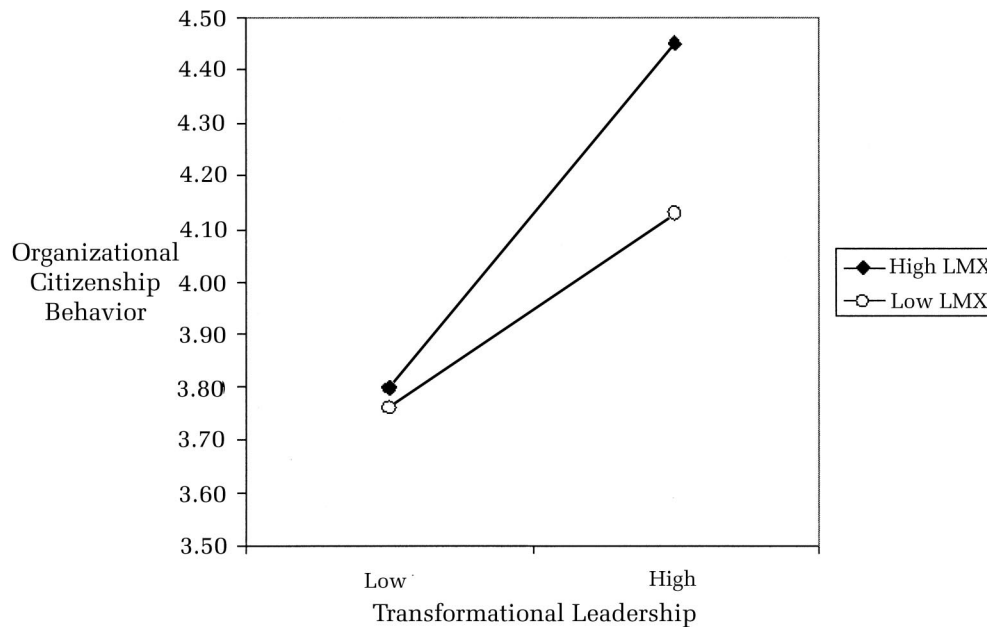


management of meaning provides one explanation for the association observed in our data.

The relationship between transformational leadership and core job characteristics is important, as those characteristics were significantly related to intrinsic motivation. Hackman and Oldham (1976,

1980) pointed to the importance of intrinsic motivation, suggesting that individuals whose actions were powered by self-generating, internal rewards would prove to be more effective employees. Our results support this assertion, as intrinsic motivation was significantly associated with task perfor-

FIGURE 3c
Leader-Member Exchange as a Boundary Condition of Transformational Leadership Effects on Organizational Citizenship Behaviors



mance. Moreover, our study is among the first to link intrinsic motivation to OCB, as individuals driven by self-generating rewards were more likely to perform discretionary behaviors that are rarely associated with external rewards.

The relationship between transformational leadership and job characteristics is important for another reason, as job characteristics were significantly related to goal commitment. Goal commitment, which is characterized by a determination to try for goals and to persist in that pursuit over time, has been linked to task performance across a wide variety of contexts (Klein et al., 1999; Wofford et al., 1992). Yet this is perhaps the first study to link job characteristics to goal commitment—a significant predictor of task performance in our sample. We are also among the first to explore the relationship between goal commitment and OCB, which was near zero in our sample. Goal-committed individuals may regard extra-role behaviors as a means to support team-level goals, but they may also view extra-role behaviors as a distraction from individual goal achievement. Thus, the link between goal commitment and OCB remains unclear.

The marriage of transformational leadership and job characteristics theory opens up a new domain of potential mediators of transformational effects. Our focus on core job characteristics complements the content of other research that is beginning to explore the process whereby transformational lead-

ership is associated with beneficial job behaviors. That is, our results point to a potential job-based mediator that adds to the leader-based and self-based mechanisms explored in past research, such as trust, satisfaction, identification, perceived fairness, and efficacy (e.g., Bono & Judge, 2003; Dvir et al., 2002; Kark et al., 2003; Pillai et al., 1999; Podsakoff et al., 1990; Shamir et al., 1993). In line with that other research, our tests of alternate models showed that the core job characteristics only partially mediated transformational relationships; the completely mediated model in Figure 2 provided a significantly worse fit to the data.

We should also note that our LMX results point to potential boundary conditions for transformational relationships. Although the results should be interpreted with the requisite caution, given that they were not predicted a priori, transformational relationships were significantly stronger for followers who perceived high-quality exchange relationships with their supervisors. Smircich and Morgan (1982) noted that leaders could not manage or frame the realities of their followers if those individuals did not grant the leaders such power. It may be that followers in high-quality LMX relationships are more open to the social influence of transformational leaders, given that the leaders have earned their trust and commitment. It may also be that the iterative role-taking/role-making process that has occurred in high-quality LMX relationships (Graen & Scandura, 1987) makes followers

more open to being “stretched” by behaviors such as intellectual stimulation or individualized consideration. In contrast, the occurrence of transformational behaviors in relationships with low-quality LMX could be met with resistance, because leaders may not have engaged in the more routine actions needed to foster effective working relationships. At the very least, this result points to the need for more integration of leadership perspectives in future research, as many studies in the literature focus on a single theory or approach.

Limitations

The theoretical contributions discussed above should be interpreted in light of this study's limitations. The data that were collected are cross-sectional, so alternative explanations for observed results may exist. There may be ambiguity in causal direction, for example, such that highly enriched jobs provide a medium for the emergence of transformational leadership, and jobs regarded as low along the core characteristics constrain transformational behaviors and ultimately make transformational leadership impractical. Individual characteristics of followers may also have an important role in the transformational leadership process (Dvir & Shamir, 2003) in such a way that some traits (e.g., extraversion, self-esteem) both facilitate assignments to jobs rich in core characteristics and also make employees more receptive to transformational leadership. It may also be that followers who engage in high levels of task performance and OCB enable leaders to act more transformationally, accounting for the observed associations.

Another possibility is that the observed relationship between transformational leadership and perceived job characteristics is spurious, in that an unmodeled variable (e.g., affective disposition) accounts for the association between the two. Some links in the model did include variables measured from a common source, raising concerns about effect size inflation due to same-source bias. However, we collected the two outcome variables (task and citizenship performance) from supervisors; thus, their source differs. All variables were collected with survey measures, and are therefore subject to monomethod bias. We should also note that our survey measure of goal commitment was not referenced to explicitly assigned or identified goals—a departure from common practice in that literature.

The sample used in the study also offers some important limitations. Because of our use of the StudyResponse service, we have little knowledge of who respondents were or why they chose to

participate. For example, the individuals who signed up for the service may be more likely to engage in OCB on their jobs, or be more likely to earn high ratings of task performance. We can therefore make no claims as to the generalizability or representativeness of our results. Our sampling strategy also prevented us from collecting data from multiple followers per leader and aggregating data to the unit level of analysis, something that has become a common approach in the transformational leadership literature (e.g., Bass, Avolio, Jung, & Berson, 2003).

Practical Implications

If the association between transformational leadership and core job characteristics does indeed represent a causal connection between the two, then our results have important implications for jobs that are low on those characteristics. Traditionally, the job design literature has looked to potentially expensive and time-consuming initiatives like job enlargement or enrichment to boost core characteristic levels. Our results suggest that leaders could influence perceived core characteristic levels by changing the language, imagery, and symbols used to communicate meaning on the job. This is not to assert that the manipulation of imagery should replace well-grounded enrichment of objective job characteristics when feasible, only that task perceptions can be influenced by how leaders communicate with followers. Indeed, both tangible, objective characteristics of a job and an individual's social construction of information provided by a work context determine task perceptions (Griffin et al., 1987). Alternatively, day-to-day job assignments and interactions could be altered with the goal of using transformational actions to stretch followers in such a way that perceptions of the core characteristics are fostered.

Of course, such efforts would require specific initiatives geared toward increasing leaders' use of transformational language and imagery. Transformational behaviors could be incorporated into the training courses that new leaders are often required to complete. Dvir and coauthors (2002) recently demonstrated that transformational leadership training could improve follower outcomes and that transformational training yielded better results than did eclectic leadership training (see also Barling, Weber, & Kelloway, 1996). Such training programs often occur after a detailed needs assessment that identifies which units are most in need of such training. Assessments of core job characteristics could be used as one tool in such a needs assessment. However, we would also suggest build-

ing a transformational component into the yearly developmental assessments (e.g., managerial skills surveys, 360-degree feedback instruments) that leaders fill out, to make the improvement of transformational behaviors more continuous.

Suggestions for Future Research

This study offers some suggestions for future research. First and foremost, experimental and longitudinal research in the laboratory and in the field is needed to ascertain the causal nature of the relationship between transformational leadership and the five core characteristics. Such work could also bring a finer-grained approach to the topic by clarifying the mediators of the relationship or by identifying which aspects of the transformational pattern account for favorable task assessments. For example, does intellectual stimulation have a more or less powerful effect on job perceptions than individualized consideration or idealized influence? Moreover, future research should broaden the job-focused concepts connected to transformational leadership, as leaders could manage meaning in other respects. For example, transformational leaders could alter the way stressors are perceived on the job, potentially framing stressors as “challenges” rather than “hindrances” (LePine, LePine, & Jackson, 2004). In addition, future studies could examine the mediating role of goal commitment with studies that manipulate or measure specific goals, rather than the general goals referenced by our measure.

Future research should also explore boundary conditions for transformational relationships, both with job characteristics and with beneficial job behaviors like task performance or OCB. If such research replicated the LMX moderation effect found here, and depicted in Figure 3, then a potentially powerful boundary condition will have been identified. Of course, the quality of leader-member exchange is only one means of classifying follower-authority relationships (e.g., Shore & Coyle-Shapiro, 2003). Other examples include assessment of psychological contract breach and of the amount of support offered by the authority. These variables could have moderating effects that mimic the LMX results observed in our data. If so, such effects would shed more light on when transformational leaders can and cannot be expected to have the most significant effects on follower reactions.

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