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SELF-CONCORDANCE AT WORK: TOWARD UNDERSTANDING THE MOTIVATIONAL EFFECTS OF TRANSFORMATIONAL LEADERS

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We extend existing theories by linking transformational leadership to "self-concordance" at work. In two studies using diverse samples and methods, leader behaviors were associated with follower tendencies to set self-concordant goals. In general, followers of transformational leaders viewed their work as more important and as more self-congruent. The effects of self-concordant work goals on job attitudes and performance were generally positive; however, the pattern of relationships differed in the field study and the experimental study.

Over the past 20 years, considerable research effort has been invested in the study of transformational, charismatic, visionary, or inspiring leaders. In contrast to rational or "transactional" approaches to leadership, transformational and charismatic theories have been framed to recognize the affective and emotional needs and responses of followers. Whereas each of the extant theories (Bass, 1985; Burns, 1978; House, 1977) is unique in some ways, most studies devoted to this type of leadership focus on describing transformational and charismatic leaders or empirically documenting their effects on followers, work groups, and organizations (see House and Shamir [1993] for a review and integration of the various theories). Indeed, there is little controversy regarding the positive associations between such leadership and follower attitudes, such as trust, job satisfaction, and organizational commitment, and behaviors, such as job performance at the individual, group, and organizational levels. Two meta-analytic reviews reached consistent and positive conclusions regarding the validity of transformational and charismatic leadership in predicting outcomes such as satisfaction and performance (Fuller, Patterson, Hester, & Stringer, 1996; Lowe, Kroeck, & Sivasubramanian, 1996).

In light of this impressive support, it is surprising that so little is known about the processes by which transformational or charismatic leaders have their effects on followers. According to Bass, "Much more explanation is needed about the inner workings of transformational leadership" (1999: 24). Noting that current rational and economic theories of motivation cannot explain the transformational leadership process, Shamir, House, and Arthur (1993) offered a self-concept-based theory. Although their theory is one of the best articulated theories regarding the motivational effects of charismatic leaders, it received only limited support in a recent empirical test (Shamir, Zakay, Breinin, & Popper, 1998).

The present investigation was designed to extend the self-concept-based theory by linking some elements of the theory with the self-concordance model, a motivational theory that links internal self-regulation, goal-directed effort, and goal attainment. Our purpose was to gain a better understanding of the reasons *why* followers of transformational leaders exhibit increased motivation, job satisfaction, organizational commitment, and job performance. We did this by testing one of the most fundamental notions underlying transformational leadership theory and the self-concept-based theory—that followers of transformational leaders find their work more meaningful and thus, are more self-engaged. In two studies, we used the self-concordance model to demonstrate how transfor-

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mational leaders affect follower engagement with their work.

THEORY AND HYPOTHESES

Transformational Leadership

One of the vexing issues in research on charismatic and transformational leadership is the extent to which the various theories overlap, both conceptually and operationally. These differing approaches lend depth and breadth to academic and practitioner knowledge of this genre of leadership. However, it is difficult to specify the motivational mechanisms linking leaders and followers without very clear conceptual definitions, including the specification of leader behaviors. Recent theories of charisma in organizations (House, 1977; Shamir et al., 1993) have reduced the emphasis on the magical or mystical properties of charisma, further blurring the boundaries between charismatic and transformational leadership. Some leadership scholars have adopted the practice of referring to both charisma and transformational leadership when referencing theory and empirical research (e.g., Shamir, 1999). In this article, we drew heavily from the Bass (1985) model, in which charisma is part, but not the whole, of transformational leadership, but our ideas were influenced by both the charismatic and transformational leadership literatures.

Self-Concept-Based Theory and the Self-Concordance Model

With self-concept-based theory, Shamir and his coauthors (1993) advanced transformational leadership research by outlining the motivational processes linking leaders and their followers. In self-concept-based theory, there are three key ways in which transformational leaders motivate followers: by increasing follower self-efficacy, by facilitating followers' social identification with their group, and by linking work values to follower values—thus increasing the extent to which followers view their work as self-expressive.

First, by providing a sense of direction (vision) and expressing high expectations and confidence in followers' ability to meet these expectations (Eden, 1992), transformational leaders increase follower self-efficacy. There is mixed support for this idea. Kirkpatrick and Locke (1996) found that vision quality and vision implementation were related to follower self-efficacy, which in turn had a positive effect on performance, though these effects were not large. In contrast, Shamir and colleagues (1998) found a negative relationship between leader charisma and follower self-efficacy in a field study.

Second, transformational leaders increase followers' social identification with their group. Social identification is the process by which individuals identify with a group, feel pride in belonging, and see membership in the group as an important aspect of their identities or self-concepts. This aspect of the self-concept-based theory also received mixed support in the Shamir et al. (1998) study. Some leader behaviors (those targeted toward emphasizing a collective identity) were related to group culture (special slogans, songs, and rituals), but not to the groups' collective efficacy. Unexpectedly, leader behaviors focused on ideology were unrelated to group culture and negatively related to group potency.

The third way that transformational leaders influence followers is through value internalization and "self-engagement" with work. When transformational leaders describe work in ideological terms, and focus on higher-order values (such as high achievement as a value in and of itself [Burns, 1978]), followers come to see their work as congruent with personally held values and thus as more meaningful. Burns (1978) noted that leaders who can activate intrinsic values may inculcate in followers a desire to follow the dictates of the values even in the absence of incentives or sanctions. With respect to commitment in this context, Shamir and his coauthors (1993) referred to an internalized personal or moral commitment. They suggested that such a commitment becomes possible when a role or course of action is consistent with and expressive of an individual's self-concept. Thus, work activities not only represent the job but the person doing the job. Furthermore, transformational leaders emphasize intrinsic rewards, such as self-expression, self-consistency, and self-efficacy, rather than extrinsic rewards. Shamir and colleagues argued that doing so "increases the chances that followers will attribute their behavior to internal self-related causes" (1993: 583), which adds to the followers' commitment to a course of action. Although the idea of self-engagement is central to self-concept-based theory, we are aware of no direct empirical test of these ideas.

An assumption underlying self-concept-based theory is that employees who view their work as congruent with their own motives, goals, and/or values (or as self-congruent) will be more motivated and more satisfied and will perform better. Indeed, the self-concordance model—a psychological theory of motivation and self-regulation—suggests that this is true. Thus, we sought to gain a better understanding of the effects of transforma-

tional or charismatic leaders by considering self-concordance as a motivational mechanism.

Self-concordance refers to the extent to which activities such as job-related tasks or goals express individuals' authentic interests and values (Sheldon & Elliot, 1999). The self-concordance model is a theory of self-regulation, that is based in self-determination theory (Ryan & Deci, 2000). According to Ryan and Deci, intentional behavior can be chosen freely or it can be chosen because of internal or external constraints or controls. Thus, individuals' reasons for acting range on a continuum from complete control by reward or punishment (such as, I go to work in the morning so I am not fired) to full integration and internalization (such as, I stay late and help a coworker because I believe that the work we do is important and makes a difference in the world). In a series of studies, Ryan and Connell (1989) identified and labeled four types of reasons for engaging in academic achievement behaviors and prosocial behaviors: "external" (avoid punishment), "introjected" (garner others' approval), "identified" (achieve a self-valued or personally important goal), and "intrinsic" (experience fun or enjoyment). These reasons form a continuum ranging from external to intrinsic, with the reasons closer on the continuum (such as "external" and "introjected") being more highly correlated than those at opposite ends (such as "intrinsic" and "external"). Thus, it is possible to form a single motivational score from the four reasons for acting.

In a recent series of studies, Sheldon and colleagues (e.g., Sheldon & Elliot, 1998, 1999) found that autonomous (versus controlled) motivation was associated with goal-directed effort, goal attainment, and satisfaction with goal achievement. This relationship exists because autonomously motivated goals fit with a person's values and beliefs and are consistent with personal convictions. They represent core values and enduring interests of the self. In contrast, controlled motivation represents goals adopted in response to environmental contingencies, such as financial rewards, or those resulting from internal processes, such as guilt or shame. Whether a goal is perceived to be autonomous or controlled is not necessarily a function of the goal's content. Rather, it is the assessments individuals make about their reasons for goal pursuit that are important.

On the basis of these studies, Sheldon and Elliot (1999) posited a self-concordance model, arguing that goals that are self-concordant (that is, consistent with one's values and interests) lead to goal attainment and well-being. Like Ryan and Connell (1989), Sheldon and Elliot treated self-concordance as a continuum, forming a composite of the two controlled (external and introjected) and two autonomously motivated (identified and intrinsic) reasons for acting. Sheldon and colleagues' studies provide impressive evidence that self-concordant goals are associated with positive outcomes (such as goal attainment and well-being). Furthermore, their findings are consistent with those of O'Reilly and Chatman (1986), who found that individuals with an internalized (versus a compliant) commitment to their organizations exhibited more extra-role behaviors, were less likely to leave, and contributed more to fund raising.

Given our adoption of a "new" concept—self-concordance—we believe it is important to provide a brief discussion of the relationships between this construct and other related organizational variables, such as psychological empowerment, and to justify our reasons for linking the self-concordance model with self-concept-based theory. With respect to the first issue, there is conceptual overlap between psychological empowerment (Thomas & Velthouse, 1990) and the self-concordance model. Indeed, psychological empowerment has direct links to self-determination theory, as self-determination (along with autonomy, competence, and impact) is a dimension of empowerment. However, there are some fundamental differences in the definitions of and the assumptions underlying these constructs. Although Spreitzer (1996) recognized the importance of individual cognitions, psychological empowerment reflects elements of an individual's work environment. Specifically, Spreitzer noted that self-determination involves "autonomy over the initiation and continuation of work behavior and processes" and that impact "is the degree to which a person can influence strategic, administrative, or operating outcomes" (1996: 485). Thus, psychological empowerment explicitly includes an element of voice or participation that is not necessary for self-concordance. This difference is an important issue for our study, as transformational leaders are not necessarily participative (Bass, 1999), nor do identification or intrinsic motivation (elements of autonomous motivation in the self-concordance model) require participation. Nonetheless, we recognize some overlap between self-concordance and psychological empowerment and believe these literatures can be used in concert to advance our understanding of leadership and work motivation.

One might ask what the concept of self-concordance adds to earlier work on intrinsic motivation and self-determination. Is self-concordance simply "old wine in a new bottle"? Although it is clearly derived from thinking on self-determination, the self-concordance concept represents an advance in

several ways. Perhaps most importantly, self-concordance is explicitly a goal-oriented or conative concept (Sheldon & Elliot, 1998). Earlier theorizing on intrinsic motivation did not place much emphasis on goal-directed behavior. In contrast, goals, and the associated reasons for their pursuit, are the defining feature of self-concordance. More generally, whereas self-determination theory was developed to account for the effects of contextual forces on intrinsic motivation (Sheldon & Elliot, 1999), the self-concordance model focuses on individuals' proactive and self-generated plans. This focus fits well with the literature on charismatic/transformational leadership, which was explicitly developed as an alternative to leadership models that were predicated on a distinction between prescribed behavior on the job and performance *beyond expectations* (Bass, 1985).

There is surprising congruency between the self-concordance model and Shamir and colleagues' (1993) self-concept-based theory. Shamir et al. noted that charismatic leaders link work behavior to followers' self-concepts, values, and identities, thereby increasing the value of their work activities and "harnessing the motivational forces of self-expression, self-esteem, and self-worth" (1993: 585). Similarly, Sheldon and Elliott (1998) linked autonomous goals to individuals' core values, which are a key part of the self. Moreover, the behaviors of transformational leaders, which lead to follower self-engagement, appear to have a great deal in common with one of the primary environmental (social) determinants of self-concordance. Specifically, when individuals in authority (such as leaders) provide a meaningful rationale for the work to be done, self-concordance is increased (Ryan & Deci, 2000). Transformational leaders provide a meaningful rationale for work by articulating an ideological vision and framing the work in terms of commonly endorsed values (Shamir et al., 1993).

With respect to our link between the self-concordance model and self-concept-based theory, we believe that the self-concordance model is an ideal means to address the *motivational* hypotheses underlying self-concept-based theory—that transformational or charismatic leaders influence follower self-engagement. The self-concordance model allows us to get directly at motives without confounding them with self-efficacy or job autonomy, though both of these may influence motives. For example, although Shamir and his colleagues (1998) provided many new insights into the links between leaders and followers, in their study heightened motivation was linked with self-sacrifice. The self-concordance model suggests that when individuals internalize work values—as suggested by the self-concept based theory—they do *not* perceive themselves to be sacrificing self-interests for the greater good. Rather, if followers internalize leader and group goals, subsequent actions are motivated by *personally held* values. Indeed, considerable evidence from the self-concordance model demonstrates motivational differences in goals pursued for an "other," such as a transformational leader, and goals pursued because they represent personally held values. Because self-concept engagement is at the heart of self-concept-based theory, testing the self-concordance model provides an important, direct test of self-concept-based theory.

In summary, we suggest that when transformational leaders present work in terms of ideology and values endorsed by most followers (higher-order values [Burns, 1978] that transcend individual interests), followers see their work as more meaningful and self-expressive and thus perceive work-related activities as more self-concordant. These perceptions lead to increased motivation, effort, performance, and satisfaction. Linking transformational leadership theory, the self-concept based theory, and the self-concordance model, we offer three hypotheses.

Hypothesis 1. Transformational leadership behaviors and followers' tendencies to view their work as self-concordant are positively associated.

Hypothesis 2. Self-concordance partially mediates the relationship between leader behaviors and follower attitudes (satisfaction with job and leader, and organizational commitment).

Hypothesis 3. Self-concordance partially mediates the relationship between leader behaviors and follower work performance.

STUDY 1: METHODS

Participants and Procedures

Participants were 247 individuals (leaders) holding supervisory or managerial positions within a participating organization and 954 of the individuals who reported directly to them. For this study, a leader was defined by formal position. Individuals who were supervised by these leaders are referred to as followers. We recruited nine organizations (seven business, one governmental, and one nonprofit), in industries ranging from advertising to aerospace, including both service and manufacturing organizations. Each organization identified a group of managers for participation in the study (such as all managers in the organization, or all managers in a particular geographic location or di-

vision). The leaders we studied held positions ranging from upper-level manager to entry-level supervisor, such as a team leader. They had 2–248 followers; the mode was 4 followers per leader. On average, leaders had held their current jobs for 5.5 years and worked in their current organizations 9.7 years. Twenty percent of the leaders held graduate degrees, 42 percent had bachelor's degrees, 63 percent were men, and their average age was 43 years.

Of 324 leaders invited to participate, 247 (76%) completed surveys. For each leader, up to 6 followers were also invited to participate (selection criteria are discussed below), resulting in a total of 1,368 followers who were potential participants. Of these, 954 followers (70%) completed our initial (time 1) surveys. Follow-up (time 2) surveys were completed by 98 percent (243) of the leaders and by 86 percent of the followers (775 of 904; 50 followers did not provide complete data at time 1 and thus did not receive time 2 surveys). The overall response rates were thus 70 percent, for the leaders, and 57 percent, for the followers. Matched data (leader and follower at times 1 and 2) were obtained for 173 leaders and 680 of their followers.

Data were collected over the Internet. At time 1, leaders identified their followers from a company list. Six followers were randomly selected (by an algorithm built into the Web site) for inclusion in the study. If a leader had fewer than 6 followers, all were included. An e-mail was sent to followers asking them to participate in the study by completing a leadership survey (for the target leader) and a measure of goal self-concordance. Approximately 60 days later (time 2), leaders completed job performance surveys for each of the randomly selected followers, and followers completed job attitude surveys. Also at time 2, a significant other (a close friend or family member) completed a job satisfaction survey for 510 (56%) of the followers. Paper surveys were distributed to followers, who passed them along to a significant other. Completed surveys were returned to the authors, and all individual responses were confidential, although summary reports were provided to leaders and organization executives.

Measures

Leadership. Transformational leadership behaviors were measured with the Multifactor Leadership Questionnaire (MLQ—Form 5X), the most frequently used measure of transformational leadership. Although early versions of this measure were criticized as assessing follower attributions rather than leader behaviors, more recent versions focus on leader behaviors. Considerable evidence of the validity and reliability of the MLQ has been compiled. However, some controversy over its dimensionality remains. In most studies, including a recent large-scale study (Avolio, Bass, & Jung, 1999), an adequate fit for a multidimensional model of transformational leadership can be found. However, equally good fit and greater parsimony tend to be found with a single-factor model (Carless, 1998). Thus, we measured each of the four dimensions with the four-item scale for that dimension (there are eight items for idealized influence) using a five-point response format (1 = "not at all," to 5 = "frequently, if not always"). The following are some sample items, listed by dimension: idealized influence, "talks to us about his/her most important values and beliefs"; inspirational motivation, "articulates a compelling vision of the future"; intellectual stimulation, "re-examines critical assumptions to question whether they are appropriate"; and individualized consideration, "spends time teaching and coaching me." Each follower responded to these items for his or her target leader, and items were averaged to form a score for each dimension.

Follower satisfaction with leader. Follower satisfaction with the leader was measured with the three-item Job Diagnostic Survey (JDS) satisfaction with supervision scale (Hackman & Oldham, 1980). A sample item is, "I am satisfied with the overall quality of supervision I receive in my work." Responses, made on a five-point scale (1, = "strongly disagree," to 5, = "strongly agree"), were averaged to form a single score. All subsequent scales were also created by averaging items, and unless otherwise noted, the same 1–5 response format was used.

Follower job satisfaction. We measured job satisfaction using five items from the Brayfield Rothe scale (Brayfield & Rothe, 1951). This short form of the Brayfield Rothe is reliable and has been used in past research (Judge, Bono, & Locke, 2000). The five items are, "Most days I am enthusiastic about my work," "I feel fairly satisfied with my present job," "I find real enjoyment in my work," "Each day at work seems like it will never end," and "I consider my job rather unpleasant." The last two items are reverse-scored. A significant other also completed these items for each target follower. Past research suggests that others' ratings of job satisfaction provide an independent assessment that correlates with self-reported job satisfaction at a level higher than self- and peer ratings of personality correlate (Judge et al., 2000).

Follower organizational commitment. Organizational commitment was measured with the eight-

item affective commitment scale (Allen & Meyer, 1990). A sample item is "I would be very happy to spend the rest of my career with this organization."

Follower job performance. We used a 15-item measure of job performance including both task performance and initiative aspects of performance, including innovation, personal initiative, and self-direction. Leaders provided reports of job performance for each of their selected followers. Self-direction items (4) were adapted from a scale developed by Stewart, Carson, and Cardy (1996). Personal initiative items (4) were measured with a scale developed for this study and based on a prior, qualitative measure (see Freese, Kring, Soose, & Zempel, 1996). The Role-Based Performance Scale (Welbourne, Johnson, & Erez, 1998) was used to measure innovation (4 items) and task performance (3 items). Following Welbourne et al., we used a five-point response scale (1, "needs improvement," to 5, "excellent"). The items are provided in the Appendix. We averaged responses to the items to form an overall job performance score and standardized these scores within company to control for differences between organizations.

Self-concordance. A goal-based measure of self-concordance was used, a practice that was consistent with research by Sheldon and colleagues (see Sheldon & Elliot, 1998). Followers were asked to identify six of their short-term, job-related goals. Because of constraints imposed by participating organizations, and because it fit within the time frame of other self-concordance research, we defined a short-term goal as one that could be accomplished in 60 days. After participants identified goals, we asked for their reasons for pursuing each goal. An individual's first goal appeared on the computer screen followed by four questions representing a continuum of self-concordant reasons for goal pursuit. The questions were "You choose this goal because somebody else wants you to or because the situation demands it" and "You pursue this goal because you would feel anxious, guilty, or ashamed if you didn't" (external and introjected items represent controlled motivation); "You pursue this goal because you really believe it's an important goal to have" and "You pursue this goal because of the fun and enjoyment it provides you" (identified and intrinsic items represent autonomous motivation). Participants answered all four questions for each of their six goals using a nine-point scale (1 = "not at all for this reason," to 9, "completely for this reason"). As our Web-based survey did not allow skipping items, six goals were obtained for all participants.

STUDY 1: ANALYSES AND RESULTS

Levels of Analysis

Before examining the statistical properties of our data, we followed recommendations made by Kozlowski and Klein (2000), who pointed out the importance of specifying the level of analysis at which variables and associations are conceptualized. Although we recognize that leaders may not behave in a completely uniform manner across followers, in this study we do not view leadership as a dyadic process. Rather, we are interested in the behaviors that leaders tend to exhibit across situations and followers—behaviors exhibited to a group as a whole. A benefit of this approach is that individual differences in follower reactions to leaders or biases in reporting are treated as error. Whereas we are interested in leadership at the *group* level, we are interested in motivation, attitudes, and performance at the *individual* level. Since the primary purpose of our study was to examine self-concept engagement—an individual-level variable—and the relations between self-concept engagement and attitudes and performance, we treated motivation, attitudes, and performance as individual-level variables. Thus, like Shamir and his colleagues (1998), we estimated a mixed-level model in which leadership at the group level influences individual motivation, attitudes, and performance.

Measurement Issues

We used structural equation modeling (LISREL 8.3) to test our hypotheses. Prior to conducting our analyses, we examined several aspects of our data. We examined the relationship between leaders' demographic characteristics—age, sex, and organizational tenure—and transformational leadership. No associations were found. We also examined the measurement properties of some of our variables. As is typically found (Lowe et al., 1996), the four dimensions of transformational leadership were highly interrelated in our data, with an average correlation coefficient *(r)* of .77 before aggregation. Exploratory factor analysis revealed that the items formed a single factor with an eigenvalue over 1.00. This factor explained 83 percent of the variance among the 20 items. Furthermore, a second-order confirmatory factor analysis (loading items on the four dimensions and the four dimensions on a single transformational factor) demonstrated a reasonable fit for the data (χ^2 = 1,152.99, df = 165, $p <$ .001, CFI = .91, IFI = .91, SRMR = .06, RMSEA = .08). Whereas this model is not a perfect fit for the data, because of cross-loadings among some of the items, it is a better fit than a single-factor model, in

which items are loaded directly on transformational leadership (χ^2 = 1,367.13, df = 170, $p < .001$, CFI = .88, IFI = .88, SRMR = .06, RMSEA = .10). Thus, subsequent analyses were conducted using a single transformational leadership factor.

As noted earlier, it was our intention to obtain a comprehensive measure of overall job performance. Because we drew items from a number of performance scales, we conducted an exploratory factor analysis on the 15 items. Results indicated that a single factor with an eigenvalue greater than 1.00 explained 84 percent of the variance in the items. Results, which are shown in Table 1, indicate that these items form a reliable scale (α = .91).

Because we conceptualized transformational leadership at the group level, we averaged the transformational leadership scores of all followers for each leader (the average was four followers per leader). This procedure was consistent with past research (Shamir et al., 1998) and was deemed justifiable in these data under James, Demaree, and Wolf's (1993) recommendations for data assumed to have a slight negative skew (ICC[1] = .25, F = 2.29, ICC [2] = .57; r_{wg} = .83). Although no absolute standard for aggregation based on the ICC(1) or r_{wg} has been established, Bliese (2000) reported values in organizational research from .05 to .20 and rare instances of values exceeding .30. Typically, r_{wg} values greater than .70 are used to justify aggregation. As expected, our individual-level variables exhibited much lower agreement within-groups than did leadership. The average ICC (1) for motivation, attitudes, and performance was .10 (ranging from .05 to .17), and the average r_{wg} for the *individual-level* variables was .65. Thus, we treated self-concordance, job attitudes, and job performance as individual-level variables.

We examined the data for consistency in goal self-concordance across the six goals for each follower. Results indicated consistency in responses across goals, as indicated by coefficients alpha of .82 and .83, respectively, for controlled and autonomous motivation. In some studies (Sheldon & Kasser, 1998), autonomous and controlled motivation scores are computed in addition to a composite self-concordance score. Because this was the first study to examine goal self-concordance at work, we computed both an overall score (self-concordance) and two dimensional scores (controlled and autonomous motivation). We averaged the two controlled motivation items (external and introjected) and the two autonomous items (intrinsic and identified) to form controlled and autonomous motivation scales. In keeping with prior research (e.g., Ryan & Connell, 1989; Sheldon & Elliot, 1998), we also formed a self-concordance composite by subtracting the controlled motivation score from the autonomous motivation score.

Although there are reasons to exercise caution in the use of difference scores (Edwards & Parry, 1993), we believed it was important for the advancement of knowledge about self-concordance to "operationalize" the construct as it has been measured in past research (e.g., Sheldon & Elliot, 1999). Moreover, because some of the items that made up our difference score (external and intrinsic items) are negatively correlated, the reliability problems found when computing difference scores from positively correlated items are not of concern here. Indeed, the composite reliability (Hunter & Schmidt, 1990) for the self-concordance composite is .84 (see Table 1). Another concern with difference scores is the loss of information that occurs when scores are combined to form a composite. In conducting our analyses, we report correlations between study variables and both the self-concordance composite and its dimensions (autonomy and control). Thus, though we are mindful of the limitations of difference scores, we believe our demonstration of the reliability of our measure, and

TABLE 1
Means, Standard Deviations, and Correlations among Study 1 Variables[a]

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9
1. Leader transformational leadership	3.70	0.52	**.94**								
2. Follower self-concordance	2.90	3.52	.13	**.86**							
3. Follower autonomous reasons for goal pursuit	5.90	0.93	.21	.65	**.83**						
4. Follower controlled reasons for goal pursuit	4.40	0.87	.05	−.58	.23	**.79**					
5. Follower job satisfaction, self-report	3.80	0.65	.17	.18	.24	.00	**.82**				
6. Follower job satisfaction, significant-other report	3.90	0.62	.14	.12	.16	.01	.61	**.88**			
7. Follower satisfaction with supervision	3.70	0.75	.42	.08	.13	.01	.43	.33	**.90**		
8. Follower organizational commitment	3.50	0.46	.25	.12	.24	−.07	.65	.47	.47	**.85**	
9. Follower job performance	0.00	0.60	.16	.02	−.02	−.04	.25	.12	.25	.17	**.91**

[a] For significant-other reports of job satisfaction n = 440; n = 680 for all other variables. Scale reliabilities are on the diagonal in boldface. Correlations greater than .08 are significant at $p < .05$, and correlations greater than .11 are significant at $p < .01$.

our undertaking analyses without reliance on difference scores, make their use here less of an issue than is often the case.

Prior to aggregating the data across organizations, we conducted a one-way analysis of variance (ANOVA) looking for mean-level differences between the organizations. Results revealed small, albeit significant, mean-level differences for some variables (such as transformational leadership and self-concordance), but not others (such as job satisfaction). However, organizations in which mean levels of transformational leadership were high were not the same organizations in which levels of self-concordance were high. We also conducted five meta-analyses, examining associations among transformational leadership, self-concordance, job attitudes, and job performance. Our goal was to determine whether sampling error could explain differences between organizations. Results indicated that sampling error accounted for most of the differences in relationships between companies: more than 70 percent of the variance in correlations across organizations was a consequence of sampling error. Thus, we deemed it appropriate to aggregate our data across companies.

Finally, to prevent interpretational problems inherent in simultaneous estimation of measurement and structural models, we tested a measurement model, loading each of the latent and observed variables on the intended construct. This model demonstrated a good fit for the data ($\chi^2 = 25.99$, $df = 14$, $p = .02$, CFI = 1.00, IFI = 1.00, SRMR = .01, RMSEA = .04). In cases in which we used a single observed variable to measure a latent construct (job attitudes), we corrected for measurement error by setting an error variance equal to ($[1 - \alpha] \times$ s.d.^{2}).

Results

Table 1 presents means, standard deviations, reliability coefficients, and correlations among the variables. As expected, transformational leadership is positively associated with both follower job attitudes and job performance. The association between transformational leadership and self-concordance is positive and significant, though not large ($r = .13$), supporting Hypothesis 1. Examination of the relationship between transformational leadership and the controlled and autonomous motivation dimensions of self-concordance reveals that transformational leadership is not associated with controlled motivation ($r = .05$). Rather, transformational leadership appears to be related only to autonomous motivation ($r = .21$).

No association was found between self-concordance and job performance. Positive associations were found between self-concordance and job satisfaction ($r = .18$ and $r = .12$ for self- and significant-other reports), organizational commitment ($r = .12$), and satisfaction with the leader ($r = .08$). Further examination of the data reveals that these associations are due to the autonomous motivation–job attitudes association, as there is no association between controlled motivation and job attitudes.

Next we estimated a structural model testing our mediation hypothesis (Hypothesis 2) for job attitudes. Results of this model, which are displayed in Figure 1 and in Table 2, model 1, revealed positive links from transformational leadership to self-concordance, job and leader satisfaction, and organizational commitment. Positive paths from self-concordance to job satisfaction and organizational commitment were also found. However, there was no association between self-concordance and satisfaction with supervision. In partial support of Hypothesis 2, we found that self-concordance partially mediated the relationship between leadership and job satisfaction and between leadership and organizational commitment. Total, direct, and indirect effects of leadership on job attitudes are presented in Table 3 ("effects" refer to links between the variables and are not meant to imply causal associations). Fit statistics indicate that the partial mediation model is a good fit for the data (Table 2, model 1). However, given the small degree of mediation, we tested two alternative models, one testing no mediation (model 2; paths from self-

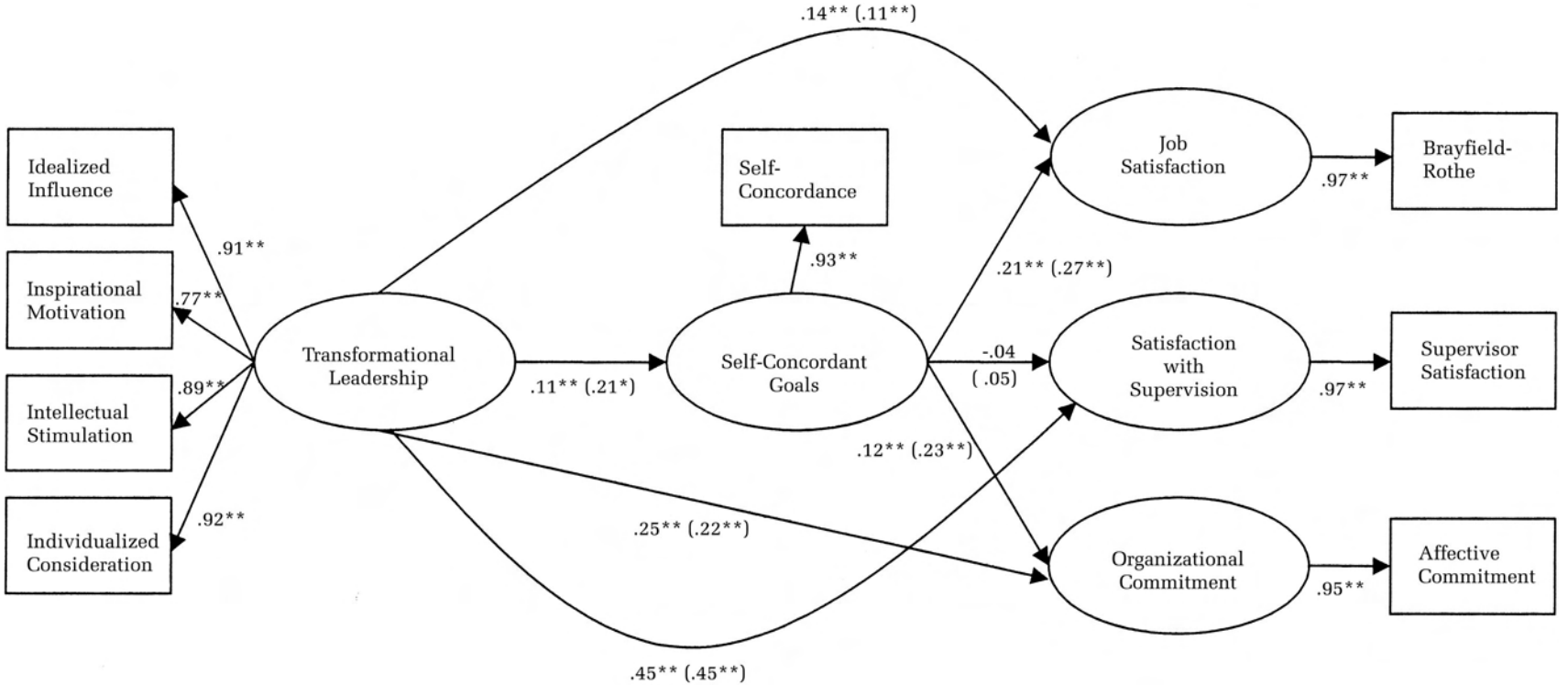
TABLE 2
Fit Indexes for Hypothesized and Alternative Models[a]

Model	χ^2	*df*	*p*[b]	*n*	CFI	IFI	RMSEA
Job attitudes							
Model 1	26.39	13	.05	716	1.00	1.00	0.04
Model 1a	27.42	13	.01	716	1.00	1.00	0.04
Model 2	53.03	16	.01	716	0.99	0.99	0.06
Model 3	174.89	16	.01	716	0.95	0.95	0.11
Job performance							
Model 4	101.05	24	.01	795	0.99	0.99	0.06
Model 4a	103.34	24	.01	795	0.99	0.99	0.06
Model 5	101.06	25	.01	795	0.99	0.99	0.06

[a] Models 1–3 are for the job attitudes model. Model 1 is the hypothesized model; model 1a, the hypothesized model with autonomy only; model 2, an alternative model with no mediation; model 3, an alternative model with full mediation. Models 4–5 are for the job performance model. Model 4 is the hypothesized model; model 4a, the hypothesized model with autonomy only; model 5, an alternative model with no mediation.

[b] Less than.

FIGURE 1
Relationships among Transformational Leadership, Goal Self-Concordance, and Job Attitudes[a]



[a] n = 716. Job attitudes were allowed to correlate (job satisfaction–satisfaction with supervision, r = .37; job satisfaction–organizational commitment, r = .63; satisfaction with supervision–organizational commitment, r = .38). Values in parentheses represent the relationship between leadership and job attitudes with only the autonomous motivation dimension of goal self-concordance as a mediator.

* $p < .05$
** $p < .01$

TABLE 3
Direct, Indirect, and Total Effects of Transformational Leadership on Self-Concordance, Job Attitudes, and Performance[a]

Transformational Leadership Effects	Self-Concordance	Job Attitudes: Job Satisfaction	Job Attitudes: Satisfaction with Supervision	Job Attitudes: Organizational Commitment	Job Performance
Direct effect	.11**	.14**	.45**	.25*	.13**
Indirect effect through self-concordance		.02**	.00	.01*	.00
Total effect	.11**	.16**	.46**	.26**	.13**
Percent mediation[b]		13	0	4	0
Model R^2	.01	.07	.21	.08	.02

[a] Values in the first three rows represent path coefficients from the structural model.
[b] Results of the model using only the autonomy dimensions of self-concordance as a mediator are not included in the table (38 percent of the effects of leadership on job satisfaction were mediated through autonomy).
* $p < .05$
** $p < .05$

concordance to job attitudes were not estimated), and another testing full mediation (model 3; paths from leadership to job attitudes were not estimated). Results (Table 2) indicate that the partial mediation model (model 1) is a better fit for the data (on the basis of fit indexes and a significant change in chi-square) than either of the alternative models (model 2 or 3). This finding suggests that self-concordance partially (rather than completely or not at all) mediates the relationship between leadership and job satisfaction and organizational commitment.

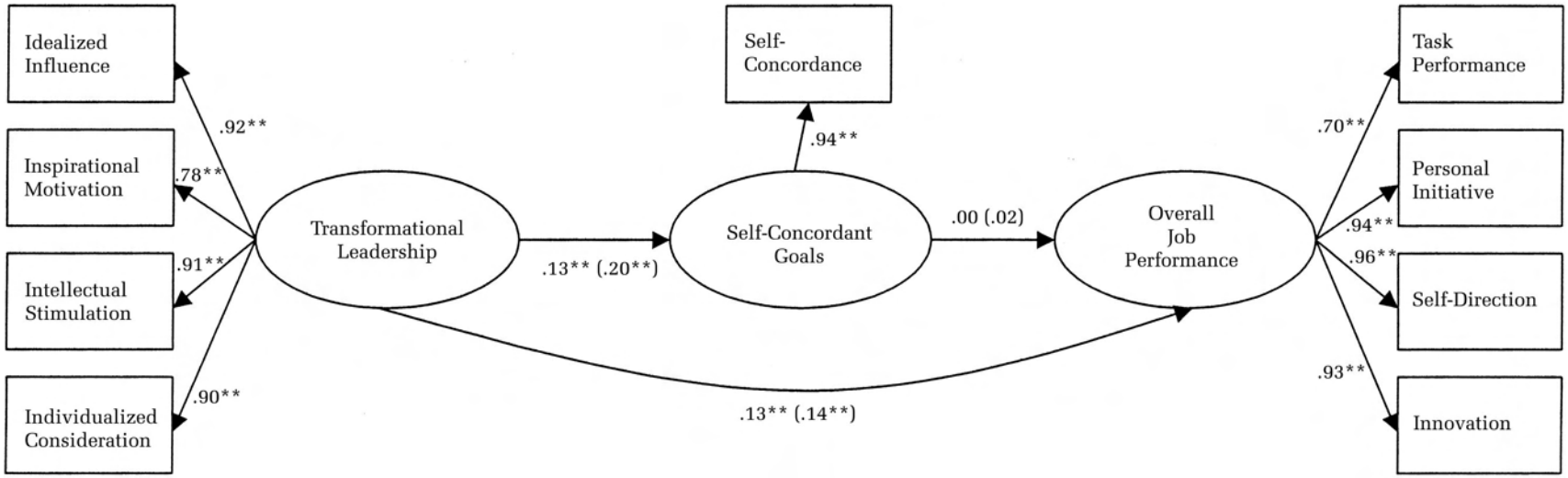
Because the association between transformational leadership and self-concordance appears to rest largely on the autonomous motivation component, we also estimated a partial mediation model using autonomous motivation as the mediator. Parameter estimates for this model are presented in parentheses in Figure 1 (see Table 2, model 1a for fit statistics). They follow the same pattern of relationships as those of the self-concordance model. However, because the relationships between leadership, autonomous motivation, and job satisfaction were slightly stronger in this model, the indirect effects were also larger: 38 percent of the link between transformational leadership and job satisfaction was mediated through autonomous motivation.

We estimated one final attitudes model using significant others' reports of job satisfaction. Results of this model ($n = 440$) follow the same pattern of relationships found in models 1 and 1a, though the path coefficients are smaller. Significant results in this model suggest that the relationships shown in Figure 1 were not due solely to the effects of common-method, same-source biases. Yet, weaker results in the significant-other model do suggest that some common source effects are present in the Figure 1 results.

We replicated the analyses described above for job performance. Figure 2 presents the results of the hypothesized partial mediation model. There are positive links between transformational leadership and both self-concordance and job performance, but there is no link between self-concordance and job performance. Although the partial mediation model is a good fit for the data (Table 2, model 4), significant, indirect effects were *not* found. Thus, for job performance, we tested only one alternative model—a no-mediation model (the path from self-concordance to job performance was not estimated). The no-mediation model fits the data equally well (Table 2). Under rules of parsimony, the no-mediation model (model 5) best represents the relationships in our data. Hence, we conclude that self-concordance did not mediate the transformational leadership–job performance association in these data. For the reasons noted earlier, we also tested a model using autonomous motivation as a mediator. Results (see the parentheses in Figure 2) follow the same pattern of relationships as the self-concordance model, thus not supporting Hypothesis 3.

Overall, results of this study provided mixed support for our hypotheses. Transformational leadership was associated with self-concordance (supporting Hypothesis 1), and this link was primarily through the autonomous motivation dimension. Furthermore, self-concordant work goals were associated positively with job satisfaction and organizational commitment, partially mediating the relationship between leadership and these job attitudes. Neither self-concordance nor the autonomous motivation dimension mediated the link

FIGURE 2
Relationships among Transformational Leadership, Goal Self-Concordance, and Job Performance[a]



[a] $n = 716$. Values in parentheses represent the relationship between leadership and job attitudes with only the autonomous motivation dimension of goal self-concordance as a mediator.

** $p < .01$

between leadership and satisfaction with supervision. Thus, Hypothesis 2 received only partial support. Finally, as there was no relationship between self-concordance and job performance, Hypothesis 3 was not supported.

To examine these relationships more closely, we conducted a follow-up laboratory experiment with two goals: (1) to provide evidence of causality (transformational leadership → self-concordance), and (2) to assess the effects of self-concordance on performance in a more controlled setting.

STUDY 2: METHODS

Participants and Procedures

Participants in this study were 162 undergraduate management students at a public university who were offered extra credit in exchange for their participation in this study. They were predominantly Caucasian (92%); 53 percent were men, and the average age was 21 years.

This experiment was conducted in a computer lab. Participants were randomly assigned to an experimental condition (follower of either a transformational or a nontransformational leader). They were told that the purpose of the study was "to better understand how individuals respond to leaders" and that they would be participating in a business simulation in which the CEO of a college town restaurant would be seeking their assistance. After reading a set of instructions, participants watched a five-minute video-taped speech by the CEO; the video conveyed the leadership experimental treatment. Next, they set goals and worked on a series of tasks. After completing the task, they responded to a series of surveys. The entire experiment was conducted at the computer.

Leadership treatment. As in past laboratory experiments on transformational leadership (Kirkpatrick & Locke, 1996), a trained actor was hired to convey both leader conditions. Though video is impersonal, this method provided two benefits. First, the leadership treatment was entirely consistent across participants. Second, in live actor studies, participants generally work on a group task in which the performance of one group member influences another. Because the task in this study was an individual task, we desired a measure of motivation and performance that would be unaffected by the behaviors of other participants.

We developed two leader scripts—transformational and nontransformational—modeling these on Kirkpatrick and Locke's (1996) work. The transformational script had several key content elements: an inspiring vision, a focus on values, illustrations of how the CEO had challenged traditional restaurant practices, and an expression of the CEO's high performance expectations. The transformational script also included elements of rhetorical style used by transformational leaders (Fiol, Harris, & House, 1999). Specifically, the transformational script contained stories and examples to illustrate the leader's vision, repetition of key phrases, and imagery. The actor was made aware of the dimensions of transformational leadership. For example, he was told about inspirational motivation, which involved having a sense of direction (vision) and communicating that vision with optimism. Thus, for the transformational condition, he was told to express optimism and passion. To the extent possible, this was done through scripting, though voice inflection and facial expressions also were used. The actor was naïve in that he had no knowledge of our hypotheses or of transformational leadership theory per se.

Although all the factual information about the restaurant was duplicated in the nontransformational script (the number of the restaurant's current locations, the fact that it catered to college students, and the CEO's intention to open a new location), there was no vision statement and no reference to the CEO's vision or values. Rather, following procedures used by Kirkpatrick and Locke (1996), we put information regarding restaurant operations into the nontransformational script. Thus, the nontransformational script was factual rather than inspiring and excluded any reference to values or visions. The language was direct and straightforward but did not include stories or rhetorical techniques known to be inspirational.

To control for any context effects, we used one actor, wearing the same clothing in the same physical setting, to deliver the scripts. We also matched body movement and camera changes across conditions. The scripts were the same length (four and a half minutes each). The leadership treatment was digitized for viewing on a computer screen. In addition, we created two short "boosters" (each 15–30 seconds long) for each condition to reinforce the leadership treatment. Tasks and boosters were linked. One of these booster videos would play immediately after a participant completed the first and second tasks. For example, after task 2, the booster told participants that they had now completed the second task. Then, for participants in the transformational leadership condition, the leader stated that the tasks were "an important part of realizing the vision of a kitchen just for students." For those in the nontransformational condition, the leader stated that work would be "entered into a database along with the work of other students."

Business simulation tasks. Participants completed three tasks. In the first task, they were asked to think of names for a new location of the restaurant. In the second, they were asked to proofread a draft of the new restaurant's menu. In the third, they were asked to list possible slogans for the restaurant. After completing the third task, participants were informed that they had completed all required tasks. However, a message on the screen informed them that the CEO was interested in having them complete one more, optional task that would take about five minutes. They were told that if they chose to complete the final task, the value of their contribution to the project would be "substantially increased." Participants who elected to complete the final task were asked to provide "thoughts on what we can do to best serve college students."

Measures

Self-concordance. Self-concordance was measured as in Study 1. However, in this study participants chose from a list of 20 possible goals created by having a small group of undergraduate students (not in the study) generate goals they might have as participants in an extra-credit study. These included such goals as "to get done quickly" and "to provide the most accurate responses for each task." After the leadership treatment, Study 2 participants were asked to adopt 6 goals from the list and report their reasons for choosing each goal.

Performance. Three measures of performance were obtained: creative performance, accuracy performance, and extrarole performance. Creative performance was measured in two ways, as the number of restaurant names (task 1) and the number of logos (task 3) a participant generated. We averaged the numbers of ideas from tasks 1 and 3 to form a measure of creative performance ($\alpha = .72$). Accuracy performance was the number of mistakes found in the menu (task 2). The number of ideas provided in task 4—the voluntary task—was the measure of extrarole performance. Tasks 1, 2, and 3 represent very simple simulations of task performance. However, our measure of extrarole performance is unique in that it closely models extrarole performance in an actual job context.

Manipulation check. At the end of the study, ten items from the MLQ were used to verify the efficacy of the leadership treatment. We used items from the idealized influence and inspirational motivation dimensions, excluding two items deemed inappropriate for our brief leadership treatment (for example, "Goes beyond self-interest for the good of the group"). Although we did attempt to include some intellectual stimulation in our leadership treatment, we did not use intellectual stimulation or individualized consideration items in our manipulation check, as we felt they were not appropriate for our brief leadership treatment (two excluded items were "Seeks differing perspectives when solving problems" and "Treats me as an individual rather than just as a member of a group"). We averaged the ten items to form a transformational leadership score.

STUDY 2: ANALYSES AND RESULTS

Maintaining consistency with the Study 1 procedures, we formed an overall goal self-concordance composite as well as autonomous and controlled motivation dimensions. To confirm the efficacy of our leadership treatment, we compared the mean levels of responses to the MLQ items in the two experimental conditions. A significant difference ($t = 7.2$, $p < .01$) confirmed that perceptions of transformational leadership were significantly higher among the participants in the transformational condition. Furthermore, confirming that our levels of leadership treatment were realistic, we noted that the mean transformational leadership ratings were 4.1 for participants in the transformational condition and 3.2 for those in the nontransformational condition. These values are about one standard deviation above and below the mean in the field data. Results also reveal significant differences in mean levels of the study variables between conditions in the direction expected for self-concordance, creative performance, and extrarole performance, but not for accuracy performance.

For estimating structural models with dichotomous variables, it is recommended that weighted least squares (WLS) regression analysis be used to estimate parameter estimates (see Jöreskog & Sörbom, 1993). WLS procedures demand a large sample *(N)* and thus were not appropriate in this experiment. Hence, we used hierarchical regression to test our mediation hypotheses, correcting for measurement error in observed variables. Table 4 presents descriptive statistics, reliability coefficients, and correlations for the Study 2 variables. As in Study 1, transformational leadership had a positive effect on self-concordance (supporting Hypothesis 1). However, examination of the two self-concordance dimensions revealed that transformational leadership had a negative effect on controlled motivation and no effect on autonomous motivation. Self-concordance (and the autonomous motivation dimension) were associated with creative and extrarole, but not accuracy, performance.

TABLE 4
Means, Standard Deviations, and Correlations among Study 2 Variables[a]

Variable	Mean	s.d.	1	2	3	4	5	6
1. Transformational leadership	1.50	0.50						
2. Follower self-concordance	3.70	6.20	.20	**.86**				
3. Follower autonomous motivation	5.80	1.60	.08	.72	**.81**			
4. Follower controlled motivation	4.40	1.40	−.19	−.60	.09	**.83**		
5. Follower creative performance	4.80	2.60	.20	.30	.32	−.08	**.72**	
6. Follower extrarole performance	0.40	1.60	.19	.24	.19	−.13	.23	
7. Follower accuracy performance	16.50	7.70	−.05	−.09	.00	.10	−.03	.06

[a] $n = 139$. Scale reliabilities are on the diagonal in boldface. Transformational leadership was coded transformational condition, 2; nontransformational condition, 1. Correlations above .17 are significant at $p < .05$, and correlations above .21 are significant at $p < .01$.

As in Study 1, controlled motivation had no effect on performance.

To test for mediation, we used procedures recommended by Baron and Kenny (1986). See Table 5. First, we regressed our dependent variables (creative, accuracy, and extrarole performance) on our independent variable (leadership). Creative and extrarole performance, but not accuracy performance, were related to leadership. Because accuracy performance failed the first Baron and Kenny step in the test for mediation (no relationship between the distal and dependent variable), we conducted subsequent steps in the test for mediation for only extrarole and creative performance. In step 2, our mediating variable (self-concordance) was significantly associated with leadership, meeting the second requirement for mediation. In steps 3 and 4, we regressed both creative and extrarole performance on our independent variable (leadership) and our mediating variable (self-concordance). As shown in Table 5, the results of step 3 are consistent with partial mediation. That is, the beta for transformational leadership is reduced and no longer significant (compare step 1 to step 3), whereas the beta for self-concordance is significant. Thus, we conclude that self-concordance partly mediates the relationship between transformational leadership and both creative and extrarole performance, providing partial support for Hypothesis 3. In Table 5 we also report the incremental variance explained by goal self-concordance (step 3), the multiple squared correlation coefficient (R^2)

TABLE 5
Results of Regression Analysis of Task Performance on Self-Concordance and Transformational Leadership[a]

Variable	Creative Performance	Extrarole Performance	Transformational Leadership
Step 1			
Transformational leadership	.25**	.21*	
R^2	.05**	.04*	
Step 2			
Self-concordance			.25**
R^2			.05**
Steps 3 and 4[b]			
Transformational leadership	.17	.16	
Self-concordance	.35**	.28**	
R^2	.17**	.09**	
ΔR^2	.12**	.05**	
Adjusted R^2	.15**	.08**	
Percent mediation[c]	32	24	

[a] Estimates are standardized regression coefficients. Steps refer to steps in Baron and Kenny (1986) mediated regression procedures.
[b] The R^2 for step 2 and the change in R^2 from step 1 are shown.
[c] Calculated as 1.0 less the direct effect (step 3) divided by the total effect (step 1). Accuracy performance was not included in this analysis as it was unrelated to leadership or self-concordance.
* $p < .05$
** $p < .01$

for the regression model, and the percentage of mediation found.

DISCUSSION

In both of the studies we conducted, we found a small, positive relationship between transformational leadership and follower self-concordance. Thus, consistent with the propositions of the self-concept-based theory, followers of transformational leaders do report greater self-concept engagement with their work. This was true in a natural work context and in a business simulation. Furthermore, because we manipulated leadership in Study 2, we have some confidence that transformational leadership behaviors *influence* follower self-concordance.

However, the nature of the association between transformational leadership and self-concordance was different in the two studies. In the field study, transformational leadership was positively correlated with autonomous motivation but not with controlled motivation. The opposite was true in the experiment, where transformational leadership had its strongest effect on controlled motivation. We do not know why this was true but suspect that the controlled setting of our experiment may have influenced our results. Future studies examining the conditions under which leadership affects controlled and autonomous motivation should be conducted. For example, it would be interesting to determine whether the effect of transformational leadership on controlled and autonomous motivation depends on the presence or absence of incentives (such as money or extra credit). This has been a central issue in self-determination research, and it would be interesting to see if transformational leadership is more likely to affect controlled (autonomous) motivation in the presence (absence) of extrinsic incentives.

We examined the association between self-concordance and work attitudes only in the field study, finding that individuals with more self-concordant work goals were more satisfied with their jobs. This effect was found even when a third party provided the job satisfaction report. When all three job attitudes were entered into the model together, self-concordance was related to job satisfaction and organizational commitment but not to satisfaction with supervision.

With respect to the effects of self-concordance on job performance, our results were inconsistent across studies. In the field study, there was no link between self-concordance and job performance. However, in the lab, we found a link with creative and extrarole performance. In the field study, we assessed self-concordance on a limited set of goals. Perhaps the short-term goals chosen by our participants had little to do with the broad criteria used in the supervisory evaluations of performance. Alternatively, it is possible that self-concordance only affects performance on simple tasks or those with an entirely motivational basis (such as extrarole behaviors). This is an important issue for future research.

Despite somewhat conflicting results, these studies make an important contribution in two ways. First, they lend empirical support to psychological theories of the motivational effects of transformational leadership with respect to follower self-engagement and meaningful work. Second, we have learned that (1) external factors (such as transformational leaders) can influence the extent to which individuals perceive their work activities to be important and self-congruent, and (2) when individuals do have such perceptions, they experience increased job satisfaction, are more willing to help out, and do better on a simple task.

These studies have some limitations as well. First, the leadership–job performance association in our study was smaller than that found in other studies. This finding may be a result of the fact that we randomly selected followers rather than having leaders choose which follower completed the surveys. It may also be because we collected performance data 60 days after the leadership surveys were completed. Other longitudinal studies (Howell & Hall-Merenda, 1999) reported similar small and significant leadership-performance associations.

Second, in a laboratory setting it is very difficult to capture the full range of transformational leadership behaviors. Although we attempted to manipulate more than charisma, it is likely that the charisma dimension of transformational leadership had the strongest effect on participants. Finally, although we labeled our idea generation tasks "creative," we did not evaluate the creativity of the responses. Thus, one might consider creative performance in our experiment to be, in reality, a measure of output quantity.

Despite these limitations, our studies have a number of strengths, including random choice of followers (versus selection by the leader), a diverse sample of leaders and followers from a broad spectrum of organizations, and data collected at two points in time. Replication of our study in both laboratory and field settings lends internal and external validity to our findings. Furthermore, although our results are not entirely free of the inflating effects of same-source bias, we reduced these effects by obtaining data from independent sources.

In particular, we note the relationship between goal self-concordance and job attitudes and job performance, where we measured self-concordance indirectly and obtained third-party reports of job satisfaction and job performance (from significant others and supervisors, respectively). Our experiment also avoids some of the common-method problems inherent in field data.

These results have practical implications for leadership training, as a better understanding of the psychological processes linking leaders and followers allows the design of more effective training programs. In particular, our results highlight the importance of teaching leaders to explicitly discuss links between job tasks and the broader purpose and vision of their organization with their followers. Research also indicates that when leaders recognize individuals' unique perspectives (behaviors consistent with the individualized consideration and intellectual stimulation dimensions of transformational leadership), they are more likely to report autonomous motivation (Deci, Eghrari, Patrick, & Leone, 1994). These studies also highlight the potential importance of self-concordance in organizations, especially with respect to employee attitudes and extrarole performance. Moreover, Ryan and Connell (1989) found that autonomous motivation was associated with more effective coping strategies. Thus, increasing employees' identification with their work (by training leaders) might be particularly valuable in organizations engaged in large-scale (or continuous) change.

From a research perspective, the greatest contribution of these studies is that they bring together two important theories that had previously not been connected to better explain the transformational leadership process. Specifically, we used a contemporary theory in personality/social psychology—the self-concordance model—to test one of the few transformational leadership process theories—the self-concept-based theory. Both our study and Shamir and colleagues' (1998) serve to demystify charismatic/transformational leadership. Shamir and his colleagues found that leaders who emphasized collective identity had followers who better identified with their leaders and their units. Our findings complement Shamir et al.'s results by revealing that transformational leadership is also linked to identification with their work. Followers of charismatic/transformational leaders are more likely to identify with those leaders and their units (Shamir et al., 1998), but they are also more likely to identify with their work—to see it as fulfilling, enjoyable, and important. Nonetheless, given equivocal support in both studies, it is clear that research outside the limits of Shamir and colleagues' (1993) self-concept-based theory is needed to further illuminate the processes underlying transformational leadership.

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APPENDIX

Job Performance Items Used in Study 1

Innovation

1. Coming up with new ideas
2. Working to implement new ideas
3. Finding improved ways to do things
4. Creating better processes and routines

Task

5. Overall performance in the tasks associated with his/her job

6. Quantity of work
7. Quality of work

Self-Direction

8. Coming up with new, original ideas for handling work
9. Redesigning job tasks for greater effectiveness and efficiency
10. Taking initiative and doing whatever is necessary
11. Going against established policies and procedures if he or she thinks it will result in meeting broader organizational goals

Personal Initiative

12. Submitting suggestions to improve work
13. Approaching his or her supervisor with suggestions for improvement when problems are encountered in the work
14. Searching for the cause of work problems he or she encounters
15. Changing something in his/her work in order to improve it

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