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TRANSFORMATIONAL LEADER BEHAVIORS AND THEIR EFFECTS ON FOLLOWERS' TRUST IN LEADER, SATISFACTION, AND ORGANIZATIONAL CITIZENSHIP BEHAVIORS

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This study examines the impact of transformational leader behaviors on organizational citizenship behaviors, and the potential mediating role played by subordinates' trust and satisfaction in that process. Measures of six transformational leader behaviors (Articulating a Vision, Providing an Appropriate Model, Fostering the Acceptance of Group Goals, High Performance Expectations, Individualized Support, and Intellectual Stimulation), one transactional leader behavior (Contingent Reward Behavior), employees' trust in their leader, and satisfaction were obtained from 988 exempt employees of a large petrochemical company. Matching evaluations of five citizenship behaviors of these employees (Altruism, Conscientiousness, Courtesy, Civic Virtue, and Sportsmanship) were obtained from their supervisors. In order to determine whether transformational behaviors augment the impact of transactional behaviors, their effects on followers' trust, satisfaction, and citizenship behaviors were examined in the context of the effect of transactional leader behaviors on these same

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variables. The results indicate that the effects of the transformational leader behaviors on citizenship behaviors are indirect, rather than direct, in that they are mediated by followers' trust in their leaders. Moreover, these results were found not to be wholly attributable to the effects of common method biases. The implications of these findings for future research on transformational leader behaviors, trust, and organizational citizenship behavior are then discussed.

The search for and identification of those behaviors that increase a leader's effectiveness has been a major concern of practicing managers and leadership researchers alike for the past several decades (cf. Bass, 1981; House, 1971; 1988; House & Baetz, 1979; Stogdill, 1974; Yukl, 1989a; 1989b). Traditional views of leadership effectiveness have focused primarily, although not exclusively, on what Burns (1978) and Bass (1985) have called *transactional* leader behaviors. According to Burns (1978), transactional behaviors are founded on an exchange process in which the leader provides rewards in return for the subordinate's effort.

More recently, however, the focus of leadership research has shifted from one of examining the effects of transactional leadership to the identification and examination of those behaviors exhibited by the leader that make followers more aware of the importance and values of task outcomes, activate their higher-order needs, and induce them to transcend self-interests for the sake of the organization (Bass, 1985; Yukl, 1989a, 1989b). These *transformational* or *charismatic* behaviors[1] are believed to *augment* the impact of transactional leader behaviors on employee outcome variables, because "followers feel trust and respect toward the leader and they are motivated to do more than they are expected to do" (Yukl, 1989b, p. 272). Examples of this new focus on leadership include the work of House, Bass, and others (e.g., Avolio & Bass, 1988; Bass, 1985; Bass, Avolio, & Goodheim, 1987; Bass, Waldman, Avolio, & Bebb, 1987; Bennis & Nanus, 1985; Boal & Bryson, 1988; House, 1977; House, Spangler, & Woycke, 1989; House, Woycke, & Fodor, 1988; Howell & Frost, 1989; Conger & Kanungo, 1987; Shamir, House, & Arthur, 1988; Tichy & DeVanna, 1986). While each of these approaches differs somewhat in the specific behaviors they associate with transformational leadership, all of them share the common perspective that effective leaders transform or change the basic values, beliefs, and attitudes of followers so that they are willing to perform beyond the minimum levels specified by the organization.

Preliminary research on transformational leadership has been rather promising. Some of this research (Bass, 1985; Bennis & Nanus, 1985; Boal & Bryson, 1988; Conger & Kanungo, 1987; House, 1977; House, Woycke, & Fodor, 1988; Howell & Frost 1989; Kouzes & Posner, 1987; Tichy & DeVanna, 1986) has been primarily conceptual in nature, focusing on the identification of the key transformational behaviors, and the development of theories of their antecedents and consequences. The remainder of this research has focused on empirically testing these conceptual frameworks. Generally speaking, the empirical results have verified the impact of transformational leader behaviors on employee attitudes, effort, and "in-role" performance. For example, Bass (1985) cites a variety of field studies demonstrating that transformational leader behaviors are positively related to employees' satisfaction, self-reported effort, and job performance. Similar results have been reported by Howell and Frost (1989). They manipulated the behavior of leaders in a laboratory setting and found that charismatic leader behaviors produced better performance, greater satisfaction, and enhanced role perceptions (less role conflict) than directive leader behaviors.

Despite these encouraging results, it is important to note that the majority of the empirical research in this area has focused on the impact of transformational leader behaviors on in-role performance and follower satisfaction, rather than "extra-role" performance. While the effects of transformational behaviors on employee in-role performance are interesting, they do not capture the most important effects of transformational leader behaviors. The real essence of transformational leadership is that these leaders "lift ordinary people to extraordinary heights" (Boal & Bryson, 1988, p. 11), and cause followers to "do more than they are expected to do" (Yukl, 1989a, p. 272), and "perform beyond the level of expectations" (Bass, 1985). In other words, as noted by Graham (1988), the most important effects of transformational leaders should be on extra-role performance, rather than in-role performance. Transformational leaders should motivate followers to perform at a level "over and above mechanical compliance with the routine directives of the organization" (Katz & Kahn, 1978, p. 528).

Also surprising, given the theoretical discussions of Bennis and Nanus (1985), Boal and Bryson (1988), and Yukl (1989a, 1989b), is that a follower's *trust* in his or her leader has not been given more attention in empirical research as a potential mediator of the effects of transformational leader behaviors on criterion variables. Bennis and Nanus (1985), for example, have suggested that effective leaders are ones that earn the trust of their followers. Similarly, trust in and loyalty to the leader play a critical role in the transformational leadership model of Boal and Bryson (1988). Finally, as noted by Yukl (1989b), one of the key reasons why followers are motivated by transformational leaders to perform beyond expectations is that followers trust and respect them. Indeed, Kouzes and Posner (1987) cite several studies, all of which indicate that the leader characteristics most valued by followers are honesty, integrity, and truthfulness. Thus, trust is viewed as playing an important mediating role in the transformational leadership process.

Another potential mediator of the impact of transformational leader behaviors on extra-role performance, in addition to trust, is employee satisfaction. Organ (1988a, 1988b, in press) has reviewed empirical research which demonstrates that employee job satisfaction is an important determinant of extra-role (e.g., "organizational citizenship") behavior. Moreover, virtually all models of transformational leadership postulate that transformational leaders enhance followers' work attitudes and satisfaction. Thus, when Organ's research on the antecedents of organizational citizenship behaviors (OCBs) is combined with models of the effects of transformational leadership, satisfaction emerges as a potential mediator of the impact of transformational leader behavior on the extra-role performance of followers.

In summary, previous theoretical and empirical research suggests that there is good reason to believe that transformational leader behaviors influence extra-role or organizational citizenship behaviors. There are, however, several potential ways in which this might happen. As shown in Figure 1, one way is for transformational leader behaviors to *directly* influence organizational citizenship behaviors, much in the same way that transactional leader behaviors have been shown to influence in-role performance (e.g., Podsakoff, Todor, & Skov, 1982; Podsakoff, Todor, Grover, & Huber, 1984; Sims & Szilagyi, 1975). This is consistent with Smith, Organ, and Near's (1983) finding that a leader's individualized support behavior, one of the transformational leader behaviors identified by Bass (Avolio & Bass, 1988; Bass, 1985), has a direct effect on some forms of employee citizenship behavior (i.e., conscientiousness).

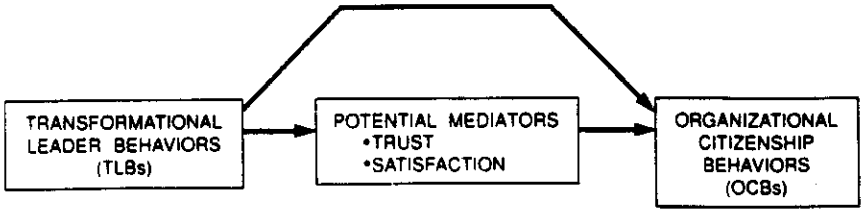


Figure 1. Conceptual relationship between transformational leader behaviors, potential moderators, and organizational citizenship behaviors.

Another possibility, also depicted in Figure 1, is that transformational leader behaviors influence organizational citizenship behaviors *only indirectly,* through their effects on mediators like followers' trust in their leaders and satisfaction. For example, in addition to documenting the direct effects of leader supportiveness on conscientiousness, Smith et al. (1983) also found that employee satisfaction *mediated* the impact of leader supportiveness on employee altruism. Followers' trust in and loyalty to the leader also has been accorded a similar role in several recent discussions of the transformational leadership process (e.g., Boal & Bryson, 1988; Kouzes & Posner, 1987; Yukl, 1989b). Thus, both followers' trust and satisfaction have been identified as potential mediators of the impact of transformational leader behaviors on followers' citizenship behaviors.

Finally, it is possible that transformational leader behaviors influence followers' citizenship behaviors *both directly* and *indirectly.* Their total effects may, in other words, be due to a combination of direct (unmediated) effects, and indirect effects working through mediators like trust and satisfaction.

The purpose of the present study, therefore, is to examine the effects of transformational leader behaviors on organizational citizenship behaviors, and the potential mediating roles of trust and satisfaction in that process. Measures of transformational leader behaviors, trust, and satisfaction were obtained from 988 exempt employees of a large petrochemical company, and measures of these employees' citizenship behaviors were obtained from their leaders. Structural equation modeling then was used to examine the direct and indirect effects of these behaviors on trust, satisfaction, and citizenship behavior. Moreover, because Bass (Avolio & Bass, 1988; Bass, 1985) argues that the effects of transformational leadership behaviors *augment* or *supplement* the effects of transactional leadership behaviors, we examined the effects of the transformational behaviors in the empirical context of the effects of the principal transactional leader behavior identified by him—contingent reward behavior.

METHOD

Sample

Data were collected from all exempt employees of a diversified petrochemical company. The company's corporate offices are located in the Midwest, but divisions throughout the United States, Canada, and Europe were represented in the sample. As indicated in Table 1, the sample was predominantly male (90%), U.S.-based (95%),

Table 1
Summary of Sample Characteristics (in Percent)

Response Rate	80.0
Job Title	
Managerial	
Upper level management	7.1
Middle level management	13.0
Lower level management	33.0
Total	53.1
Nonmanagerial	
Sales	29.7
Nonsales	17.2
Total	46.9
Gender	
Male	90.2
Female	9.8
Annual Pay	
Less than $20,000	0.4
$20,000–$39,999	36.3
$40,000–$59,999	42.2
$60,000–$79,999	14.0
$80,000 and above	7.0
Level of Education	
Less than high school	0.6
High school degree	5.8
Some college	12.3
Associate degree	5.7
Four year degree	55.9
Master's-degree	15.2
Ph.D. or equivalent	4.6
Member of Professional Association	
Yes	60.7
No	39.3
Location	
United States	95.4
Other	4.6
Mean Age (Years)	39.88 (s.d. = 10.31)
Average Organizational Tenure (Years)	10.13 (s.d. = 10.20)
Average Job Tenure (Years)	5.89 (s.d. = 8.40)
Average Tenure with Supervisor (Years)	3.65 (s.d. = 5.04)

and had a mean age of approximately forty years. Survey participants had been employed by the company for an average of approximately 10 years, and they reported being in their current position for approximately 6 years. Respondents had reported to their current immediate supervisor, on average, for slightly over 3.5 years.

The job categories sampled were nearly evenly divided between managers (53%) and nonmanagers (47%). Managerial participants were primarily supervisors and district managers, although senior managers and general managers/vice presidents also were included in the sample. Nonmanagerial participants were primarily salespersons.

More than 80 percent (81.4%) of the respondents had obtained a college degree, with approximately one-fourth of those holding advanced degrees (Master's or Ph.D.). Less than 10 percent (6.4%) of the sample reported having had no college experience. More than three-fourths (78%) of the sample reported annual earnings between $20,000 and $59,999. Professionalism was generally high in the sample, with almost two-thirds (61%) of the group indicating that they belonged to a professional organization.

Data were gathered by questionnaire from both employees and their immediate supervisors. The questionnaires were distributed in packets, each of which contained a letter of support from top management, a letter from the researchers assuring participants of complete confidentiality, and a questionnaire. Completed surveys were mailed by the respondents directly to the researchers in pre-addressed envelopes.

Measures

Transformational Leader Behaviors

Although broadly speaking, the topic of transformational leadership has received a great deal of attention in recent years, our understanding of what is involved in transformational leadership still is somewhat unclear. The one thing that is clear, however, is that transformational leadership is multidimensional in nature. Our review of the extant literature suggests that there are at least six key behaviors associated with transformational leaders:

- *Identifying and Articulating a Vision*—Behavior on the part of the leader aimed at identifying new opportunities for his or her unit/division/company, and developing, articulating, and inspiring others with his or her vision of the future.
- *Providing an Appropriate Model*—Behavior on the part of the leader that sets an example for employees to follow that is consistent with the values the leader espouses.
- *Fostering the Acceptance of Group Goals*—Behavior on the part of the leader aimed at promoting cooperation among employees and getting them to work together toward a common goal.
- *High Performance Expectations*—Behavior that demonstrates the leader's expectations for excellence, quality, and/or high performance on the part of followers.
- *Providing Individualized Support*—Behavior on the part of the leader that indicates that he/she respects followers and is concerned about their personal feelings and needs.
- *Intellectual Stimulation*—Behavior on the part of the leader that challenges followers to re-examine some of their assumptions about their work and rethink how it can be performed.

As shown in Table 2, each of these behaviors has been identified as an important element of the transformational leadership process. There is a great deal of consensus among the researchers on some of these behaviors, but not on others. For example, Identifying and Articulating a Vision has been identified by virtually all of the authors as an important component of the transformational leadership process. Similarly, Facilitating the Acceptance of Group Goals and Providing an Appropriate Model were identified by at least four different authors as elements of transformational leadership. In contrast, only Bass and his colleagues (Avolio & Bass, 1988; Bass, 1985) argue that Intellectual Stimulation should be considered an aspect of transformational leadership. However, in order to make certain that the domain of transformational leader behaviors was adequately tapped, and that our test of the impact of these behaviors was comprehensive, we chose to include all six of the categories identified above in the present study.

Following the recommendations of Schwab (1980) and Churchill (1979), the development of the measures to assess the six transformational leadership behaviors progressed through several stages. In the first step, a pool of approximately 100 items, consistent with the construct definitions described above, was developed. This was done by searching the literature for previous operationalizations of the transformational leadership constructs (e.g., Avolio & Bass, 1988; Bass, 1985; Bradford & Cohen, 1984; Conger & Kanungo, 1987; House, 1987), and comparing the items from previous operationalizations to our construct definitions. Where prior operationalizations were deficient in wholly tapping the domain of each transformational leadership construct, we developed additional items.

Next, we conducted a Q-Sort of the list of items using a panel of twelve content experts. These colleagues were given definitions for the six dimensions of transformational leadership behaviors. They were then instructed to evaluate each of the items and place them in the most appropriate transformational leadership category, or a seventh "other" category for any item which did not fit any of the conceptual definitions. The final scale consisted of only those items on which at least 80% of the judges agreed on the item's coding. Following the Q-Sort process, the final set of items was arranged in random order on the questionnaire.

Transactional Leader Behavior

Five items taken from Podsakoff et al.'s (1984) contingent reward behavior scale were used to measure transactional leader behavior. Contingent reward behavior captures the exchange notions fundamental to transactional leader behavior, and is the principal behavior identified by Bass (Avolio & Bass, 1988; Bass, 1985) to represent this category. The specific items chosen from this scale were the following: "Always gives me positive feedback when I perform well"; "Gives me special recognition when my work is very good"; "Commends me when I do a better than average job"; "Personally compliments me when I do outstanding work"; and "Frequently does not acknowledge my good performance" (reverse coded). All of these items tap the extent to which a leader provides rewards in exchange for a follower's effort.

Trust In/Loyalty To the Leader

Although a number of current conceptualizations of trust exist (e.g., Cook & Wall, 1980; Giffin, 1967; Rotter, 1967), at present there is no clear consensus as to which one of these is best. In our study, trust was conceptualized as faith in and loyalty to the

Table 2
Behavioral Components of Existing Models of Transformational Leadership

Behavioral Components	*House (1977)*	*Bradford and Cohen (1984)*	*Bass (1985)*	*Bennis and Nanus (1985)*	*Tichy and DeVanna (1986)*	*Conger and Kanungo (1987)*	*Kouzes and Posner (1987)*
Identify and articulate a vision	Provide an appealing vision	Determine and build a common vision	Charismatic leader behavior*	Management of attention through vision	Recognize a need for change and create a new vision	Advocate an appealing yet unconventional vision	Challenge the process and inspire a shared vision
Provide an appropriate model	Set an example for followers to imitate		Charismatic leader behavior			Take a high personal risk to support the vision	Model the way
Fostering the acceptance of group goals		Build a shared responsibility team		Work to develop commitment and trust	Team build to gain support for new vision		Enable others to act
High performance expectations	Communicate high expectations of follower performance		Inspirational leader behavior				
Provide individualized support			Individualized consideration			Be sensitive to the needs of the followers	
Recognize accomplishments						Behave with confidence and enthusiasm	Encourage the heart
Intellectual stimulation			Intellectual stimulation				
Other	Behave to arouse individual motives	Continuously develop the skills of individuals	Charismatic leader Behavior*				

Note: *Bass' (1985) conceptualization of charismatic leadership includes leader vision, as well as respect for the leader and the inspiration and encouragement provided by his or her presence

leader. Six items were used to tap these dimensions. Two of the items—"I feel quite confident that my leader will always try to treat me fairly"; "My manager would never try to gain an advantage by deceiving workers"—were derived from the scale of Interpersonal Trust at Work developed by Cook and Wall (1980), and along with a third item—"I have complete faith in the integrity of my manager/supervisor"—were used to reflect the followers' faith in the intentions of their leaders. The remaining three items—"I feel a strong loyalty to my leader"; "I would support my leader in almost any emergency"; "I have a strong sense of loyalty toward my leader"—were used to reflect the followers' sense of loyalty and allegiance to their leaders.

Follower Satisfaction

Satisfaction was measured by the short-form of the Minnesota Satisfaction Questionnaire (MSQ), developed by Weiss, Dawis, England, and Lofquist (1967). This 20-item scale measures three dimensions of employee satisfaction—(1) intrinsic, (2) extrinsic, and (3) general satisfaction. Prior research on the MSQ has demonstrated the scale's psychometric properties are quite acceptable (Gillet & Schwab, 1975; Weiss et al., 1967). In the present study, scale scores of each of the three dimensions of the MSQ were used as multiple indicators of the employee satisfaction latent construct.

Organizational Citizenship Behaviors

Recently, Organ (1988a) has identified five major types of behavior that he calls "organizational citizenship behaviors" (OCBs). According to Organ, OCBs are "behavior[s] of a discretionary nature that are not part of employees' formal [role] requirements, but nevertheless promote the effective functioning of the organization" (1988a, p. 4). Thus, "citizenship behaviors" are prime examples of the kind of extra-role behavior that transformational leadership is believed to encourage. The following five types of citizenship behavior identified by Organ (1988a, in press) were included in the present study.

- *Altruism*—Discretionary behaviors that have the effect of helping a specific other person with an *organizationally relevant* task or problem.
- *Conscientiousness*—Discretionary behaviors on the part of the employee that go *well beyond the minimum role requirements* of the organization, in the areas of attendance, obeying rules and regulations, taking breaks, and so forth.
- *Sportsmanship*—Willingness of the employee to tolerate less than ideal circumstances without complaining—to "avoid complaining, petty grievances, railing against real or imagined slights, and making federal cases out of small potatoes" (Organ, 1988, p. 11).
- *Courtesy*—Discretionary behavior on the part of an individual aimed at *preventing* work-related problems with others from occurring.
- *Civic Virtue*—Behavior on the part of an individual that indicates that he/she responsibly participates in, is involved in, or is concerned about the life of the company.

The scales used to measure the five organizational citizenship behaviors were developed in a manner similar to the development of the transformational leader behavior scales. The definitions provided above were used to generate items for each of the constructs.[2] These items were then given to a group of ten colleagues in order to conduct a Q-Sort. These colleagues were given definitions for the five dimensions and were asked to place each item in the most appropriate citizenship behavior category, or a sixth "other" category for any item which, in their judgment, did not fit any of the conceptual definitions. The final scale consisted of only those items on which at least 80% of the judges agreed on the item's coding.

Seven-point Likert scales ranging from (1) "Strongly Disagree" to (7) "Strongly Agree" were utilized to assess all of the constructs measured in the present study, with the exception of the 20 MSQ items, which were assessed with the traditional 5-point scales ranging from (1) "Very Dissatisfied" to (5) "Very Satisfied" used in previous research (Weiss et al., 1967).

Analytical Procedures

Prior to evaluating the impact of the transformational leader behaviors on the organizational citizenship behaviors, we first examined the psychometric properties of the scales developed for our study. As a first step, we conducted separate confirmatory factor analyses for the leader behavior, trust in leader, and OCB scales. The goal of these preliminary analyses was to evaluate the factor structure of these scales.[3] Next, we conducted an overall confirmatory factor analysis (including all of the leader behaviors, trust, satisfaction, and OCB measures) to simultaneously assess the convergent and discriminant validities of all of the constructs used in this study. Following this, we used covariance structure analysis procedures (Joreskog & Sorbom, 1986) to determine whether transformational behaviors augment the impact of transactional behaviors on organizational citizenship behaviors, and to examine the potential mediating role of trust and satisfaction in that process.

RESULTS

Confirmatory Factor Analyses

Leader Behaviors

The initial confirmatory factor analysis of the leader behavior measures (both transformational and transactional) indicated that all of the items used to assess the seven leader behavior dimensions had significant and substantial loadings on their hypothesized factors. However, an examination of the factor intercorrelations indicated that, although all of the constructs met the criterion for discriminant validity (all correlations were significantly less than 1.00),[4] the correlations among three of the transformational leadership constructs—articulating a vision, providing an appropriate model, and fostering the acceptance of group goals factors—were very large (all approaching or exceeding .90). This suggested that these three transformational leader behaviors might

be multiple indicators of an underlying "core" transformational leader behavior dimension.

To examine this possibility, we included a second-order latent factor in our analysis along with the first-order factors initially specified. The second-order latent construct had three first-order factors as indicators (articulating a vision, providing an appropriate model, and fostering the acceptance of group goals). The results of this factor analysis are reported in the Table 3. As shown in the table, all of the items had significant loadings on their hypothesized first-order factors, and the articulating a vision, providing an appropriate model, and fostering the acceptance of group goals first-order factors had significant loadings on the second-order "core" transformational leader behavior construct. The chi-square for this model is 877.07 (df = 337), and the Tucker-Lewis (1973) goodness-of-fit index (TLI), which is a measure of how well the model accounts for the sample variances and covariances, is .97.

At first glance, it appears that the χ^2 and TLI lead to conflicting conclusions regarding the overall fit of this model. The χ^2 statistic is significant, which is indicative of a poor fit, while the TLI is considerably above .90, which is generally regarded as evidence of a excellent fit. The reason for the discrepancy, however, is the well documented dependence of the chi-square statistic on sample size (Joreskog & Sorbom, 1986; Marsh, Balla, & McDonald, 1988). Marsh et al.'s (1988) recent Monte Carlo simulation study of the impact of sample size on 30 widely used goodness-of-fit indices, including Joreskog and Sorbom's (1986) *GFI*, Bentler and Bonett's (1980) *NFI*, and the traditional chi-square statistic, indicated that the TLI and others derived from it are the only goodness-of-fit indices that are relatively independent of sample size. Based on their findings, we relied on the TLI as the primary index of model fit throughout this paper.

Consequently, in our subsequent analyses the leader behaviors were represented by four first-order transformational leader behavior constructs—high performance expectations, individualized support, intellectual stimulation, and a "core" transformational behavior construct—as well as one first-order transactional leader behavior construct—contingent reward behavior. All of these constructs were modelled as having the items shown in Table 3 as indicators, while the "core" transformational construct (CTB) was modeled as having three factor scores as indicators—one for articulating a vision first-order construct, one for providing an appropriate model first-order construct, and one for fostering the acceptance of group goals construct.

Trust in Leader

Table 4 reports the results of the confirmatory factor analysis of the trust in leader scale. The overall pattern of results clearly indicates that all of the items load on the intended factor, the construct is unidimensional, and this one-factor model fits the data very well in an absolute sense (TLI = .96).

Organizational Citizenship Behaviors

Table 5 reports the results of the confirmatory factor analysis of the organizational citizenship behavior scale. As shown in this table, the overall fit of the 5-factor model hypothesized by Organ (1988a, in press) to the data was quite good (TLI = .94), with

Table 3
Confirmatory Factor Analysis of the Leader Behavior Scale

Item No.	*Item*	*Mean*	*S.D.*	*Artic. Vision*	*Provide Approp. Model*	*Foster. Accept. Goals*	*High Perf. Expect.*	*Individ. Support*	*Intell. Stim.*	*Contin. Reward*
First-Order Transformational Leader Behavior Factors										
12	Has a clear understanding of where we are going.	5.07	1.67	1.000						
4	Paints an interesting picture of the future for our group.	4.68	1.72	0.910						
24	Is always seeking new opportunities for the organization.	4.90	1.91	1.070						
18	Inspires others with his/her plans for the future.	4.41	1.68	1.146						
20	Is able to get others committed to his/her dream.	4.43	1.57	1.045						
5	Leads by "doing," rather than simply by "telling."	4.35	1.93		1.000					
8	Provides a good model for me to follow.	4.80	1.84		1.135					
26	Leads by example.	4.87	1.87		1.189					
16	Fosters collaboration among work groups.	4.72	1.66			1.00				
22	Encourages employees to be "team players."	5.40	1.62			1.191				
25	Gets the group to work together for the same goal.	5.00	1.62			1.305				
28	Develops a team attitude and spirit among employees.	4.79	1.82			1.485				
1	Shows us that he/she expects a lot from us.	5.75	1.41				1.000			
10	Insists on only the best performance.	5.46	1.39				1.206			
14	Will not settle for second best.	5.12	1.62				1.165			
3	Acts without considering my feelings. (R)	4.48	2.01					1.000		

7	Shows respect for my personal feelings.	4.79	1.78	1.063			
9	Behaves in a manner thoughtful of my personal needs.	4.76	1.71	1.031			
11	Treats me without considering my personal feelings. (R)	4.85	1.84	1.008			
19	Challenges me to think about old problems in new ways.	4.97	1.46		1.000		
21	Asks questions that prompt me to think.	5.16	1.41		0.930		
23	Has stimulated me to rethink the way I do things.	5.00	1.50		1.057		
27	Has ideas that have challenged me to reexamine some of basic assumptions about my work.	4.90	1.47		1.018		
First-Order Transactional Leader Behavior Factor							
2	Always gives me positive feedback when I perform well.	4.78	1.90				1.000
6	Gives me special recognition when my work is very good.	4.70	1.75				0.937
13	Commends me when I do a better than average job.	4.89	1.60				0.912
15	Personally compliments me when I do outstanding work.	5.01	1.71				0.975
17	Frequently does not acknowledge my good performance. (R)	4.73	1.81				0.916

Second-Order Transformational Leader Behavior Construct	**"Core" Transformational Behaviors**
Articulating a vision	1.000
Providing an appropriate model	1.078
Fostering acceptance of group goals	0.832

Notes: TLI = 0.973.
Chi-Square with 337 degrees of freedom = 877.07 ($p < .001$).
(R) denotes reverse coded item.

Table 4
Confirmatory Factor Analysis for the Trust in/Loyalty to the Leader Scale

No.	Item	*Mean*	*S.D.*	*Trust in/Loyalty to the Leader*
1	I feel quite confident that my leader will always try to treat me fairly.	5.23	1.87	1.667
2	My manager would never try to gain an advantage by deceiving workers.	5.19	1.99	1.645
3	I have complete faith in the integrity of my manager/supervisor.	5.25	1.89	1.774
4	I feel a strong loyalty to my leader.	5.34	1.80	1.587
5	I would support my leader in almost any emergency.	6.16	1.23	0.798
6	I have a divided sense of loyalty toward my leader. (Reverse coded)	4.97	2.02	1.227

Notes: TLI = 0.960.
Chi-Square with 9 degrees of freedom = 105.63 ($p < .001$).

Table 5
Confirmatory Factor Analysis for the Organizational Citizenship Behavior Scale

Item No.	*Item*	*Mean*	*S.D.*	*Conscientiousness*	*Sportsmanship*	*Civic Virtue*	*Courtesy*	*Altruism*
18	Attendance at work is above the norm.	6.14	1.28	0.873				
21	Does not take extra breaks.	5.97	1.41	0.964				
22	Obeys company rules and regulations even when no one is watching.	6.13	1.13	0.763				
24	Is one of my most conscientious employees.	6.05	1.19	0.871				
3	Believes in giving an honest day's work for an honest day's pay.	6.22	1.01	0.764				
4	Consumes a lot of time complaining about trivial matters. (R)	5.33	1.69		1.344			
16	Always focuses on what's wrong, rather than the positive side. (R)	5.11	1.68		1.189			
7	Tends to make "mountains out of molehills." (R)	4.81	1.86		1.364			
19	Always finds fault with what the organization is doing. (R)	5.36	1.60		1.117			
2	Is the classic "squeaky wheel" that always needs greasing. (R)	5.06	1.77		1.125			
9	Attends meetings that are not mandatory, but are considered important.	5.31	1.40			0.795		
11	Attends functions that are not required, but help the company image.	5.18	1.44			0.776		
6	Keeps abreast of changes in the organization.	5.75	1.13			0.520		
12	Reads and keeps up with organization announcements, memos, and so on.	5.81	1.15			0.618		
17	Takes steps to try to prevent problems with other workers.	5.55	1.33				1.058	
20	Is mindful of how his/her behavior affects other people's jobs.	5.35	1.38				1.052	
14	Does not abuse the rights of others.	5.99	1.25				0.805	
4	Tries to avoid creating problems for coworkers.	5.80	1.29				0.926	
8	Considers the impact of his/her actions on coworkers.	5.48	1.31				0.938	
13	Helps others who have been absent.	5.47	1.30					0.912
1	Helps others who have heavy work loads.	5.37	1.32					0.908
23	Helps orient new people even though it is not required.	5.62	1.27					0.809
15	Willingly helps others who have work related problems.	5.71	1.21					0.947
10	Is always ready to lend a helping hand to those around him/her.	5.81	1.18					0.995

Notes: TLI = 0.941.
Chi-Square with 235 degrees of freedom = 790.88 ($p < .001$).
(R) denotes items that have been reverse coded.

all of the items used to assess the five OCB factors loading significantly on their intended factors.

Overall Confirmatory Factor Analysis

Up to this point, the analysis has focused on the convergent validity of the constructs used in the study. However, little attention has been given to their discriminant validity. Thus, the next step was to examine the discriminant validity of the complete set of constructs by conducting an overall confirmatory factor analysis, and examining the factor intercorrelations. The complete set of constructs is shown in Figure 2.

This figure includes two sets of relationships: measurement relationships and structural relationships. The measurement portion of the model specifies the relationships between the underlying (latent) constructs, which are represented in the figure by circles, and the measures listed in Tables 3, 4, and 5, which are represented by boxes. The influence of the latent constructs on these indicators is represented by the lines from the ηs to the individual indicators. The structural component of the model specifies the hypothesized theoretical relationships among the transformational and transactional leader behaviors, trust, satisfaction, and organizational citizenship behaviors. These "causal" relationships are represented by γs and βs.

The results of the overall confirmatory factor analysis are reported in Tables 6 and 7. Table 6 shows the unstandardized factor loadings for the twelve-factor confirmatory analysis. Consistent with the results of our previous analyses, this table shows that all of the items loaded significantly on their hypothesized factors. Moreover, the fit of this overall model to the data was quite respectable (TLI = .92). Thus, even when all of the measures are examined simultaneously, the hypothesized 12-factor solution is supported.

Table 7 shows the factor reliabilities and intercorrelations. As indicated by the diagonal entries in this table, the internal consistency reliabilities (coefficient alphas) for all of the constructs met or exceeded Nunally's (1978) recommended level of .70 for newly developed scales. The sub-diagonal entries show the factor intercorrelations. Two things should be noted about these correlations. First, individual tests of the correlations showed that all of them are significantly less than 1.00, thus suggesting that all of the constructs are distinct. In spite of this, it is also important to note that several of the correlations were quite high. For example, courtesy and altruism were highly correlated (r = .86). However, this finding might have been expected since Organ's (1988a) distinction between these two constructs is a subtle one. He notes that altruism is "coming to the aid of someone who already has a problem," while courtesy is "helping someone prevent a problem from occurring, or 'aking steps in advance to mitigate the problem" (Organ, 1988a, p. 12). Thus, one might expect that these two forms of helping behavior would be highly correlated.

Similarly, the "core" transformational leadership construct and intellectual stimulation also were highly correlated (r = .84). While the reason for this is not as obvious as the reason for the high correlation between courtesy and altruism, Bass (1985, p. 110) suggested that transformational leader behaviors (especially articulating and propagating new ideas and beliefs) may be a key determinant of the intellectual stimulation of followers. If so, then perhaps we should not be surprised to find that our "core" transformational behavior construct, which includes articulating a vision, is highly

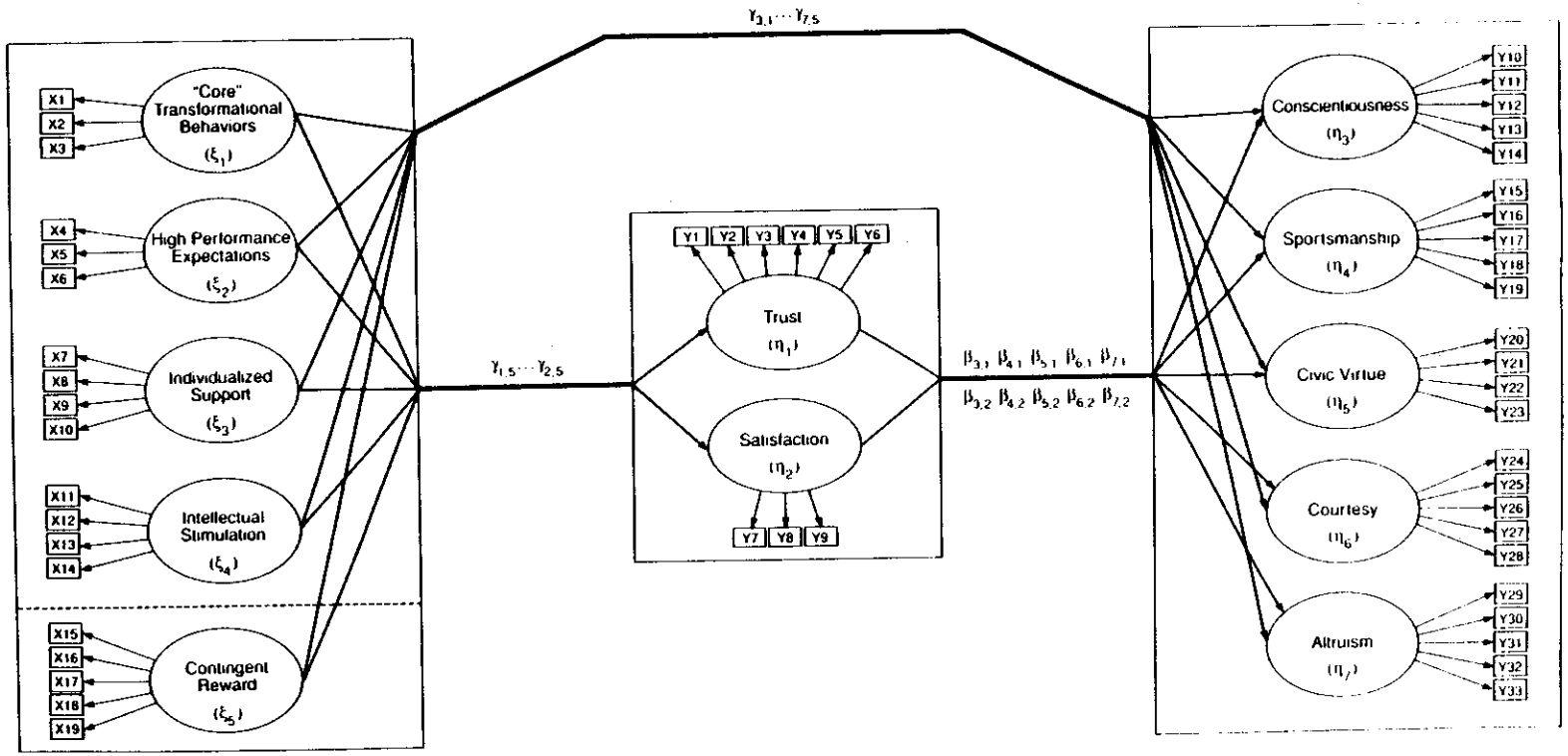


Figure 2. "Saturated model" tested in the present study. *Note:* Correlations among the transformational leader behavior latent constructs and among the OCB latent constructs have been omitted for the sake of clarity.

Table 6
Confirmatory Factor Analysis for the Overall Model

Item	*"Core" Trans. Behav.*	*High Perf. Expect.*	*Individ. Support.*	*Intell. Stim.*	*Contin. Rewards*	*Trust*	*Satis-faction*	*Conscien-tiousness*	*Sports-manship*	*Civic Virtue*	*Courtesy*	*Altruism*
LX(1,1)	1.000											
LX(2,1)	1.155											
LX(3,1)	0.994											
LX(4,2)		1.000										
LX(5,2)		1.213										
LX(6,2)		1.162										
LX(7,3)			1.000									
LX(8,3)			1.055									
LX(9,3)			1.023									
LX(10,3)			1.005									
LX(11,4)				1.000								
LX(12,4)				0.932								
LX(13,4)				1.058								
LX(14,4)				1.020								
LX(15,5)					1.000							
LX(16,5)					0.937							
LX(17,5)					0.911							
LX(18,5)					0.975							
LX(19,5)					0.915							
LY(1,1)						1.000						
LY(2,1)						0.989						
LY(3,1)						1.046						
LY(4,1)						0.967						
LY(5,1)						0.457						
LY(6,1)						0.753						

| | | |

Table 7
Reliabilities and Intercorrelations Among the Variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. "Core" transformational leader behaviors	(.87)											
2. High performance expectations	.62	(.78)										
3. Individualized support	.73	.23	(.90)									
4. Intellectual stimulation	.84	.68	.56	(.91)								
5. Contingent reward behavior	.73	.37	.75	.63	(.92)							
6. Trust	.87	.41	.84	.67	.72	(.90)						
7. Satisfaction	.77	.48	.65	.61	.64	.75	(.73)					
8. Conscientiousness	.27	.15	.24	.22	.22	.30	.20	(.82)				
9. Sportsmanship	.20	.09	.26	.16	.26	.26	.20	.57	(.85)			
10. Civic Virtue	.12	.07	.14	.12	.15	.15	.14	.63	.45	(.70)		
11. Courtesy	.23	.13	.24	.19	.23	.30	.22	.74	.64	.63	(.85)	
12. Altruism	.22	.10	.22	.17	.24	.26	.20	.81	.57	.73	.86	(.85)

correlated with intellectual stimulation. In fact, Bass (1985, p. 101) reports high correlations between intellectual stimulation and charismatic leadership, which is similar to our "core" transformational behavior construct in several respects.

Effects of Transformational Leadership, Trust, and Satisfaction on OCBs

Aggregate Effects

Because the measurement relationships proposed were consistent with the data, the analysis shifted to an evaluation of the main sets of the theoretical relationships shown in Figure 2. The model shown in the figure includes: (a) direct effects of the leader behaviors (both transformational and transactional) on organizational citizenship, (b) effects of the leader behaviors on trust and satisfaction, and (c) effects of trust and satisfaction on the organizational citizenship behaviors. Our initial step in testing this model was to examine whether these sets of relationships existed—whether the leader behaviors as a group influenced the OCBs, whether the leader behaviors as a group influenced trust, and so forth. To do this, we estimated and statistically compared the models described in Table 8.

Model A in Table 8 is the model in Figure 2. This model includes all of the direct and indirect effects of the leader behaviors on OCBs. As shown in the first row of Table 8, this "saturated" model accounted for the data reasonably well ($\chi^2 = 3554.3$, df = 1211; TLI = .92). Model B, is identical to Model A, except the direct effects of all of the leader behaviors on the organizational citizenship behaviors were omitted. The chi-square difference between these models is an overall test of the *direct* effects of the *set* of leader behaviors on the *set* of citizenship behaviors. As shown in the table, this difference was 30.3, which was not significant at 25 degrees of freedom. Thus, it appears that the leader behaviors, as a group, do not directly influence the citizenship behaviors.

Models C, D, E, and F examine the *indirect* effects of the leader behaviors on citizenship behaviors. Model C is identical to Model B except the effects of the leader behaviors on trust were omitted. The chi-square difference between Model B and Model C was 1292.4, which was highly significant ($p < .001$) at 5 degrees of freedom; thus indicating that the effects of the transformational and transactional leader behaviors (as a group) on trust made an important contribution to the overall fit of the model, and should not be omitted.

Model D is the same as Model B, except that the effects of the leader behaviors (as a group) on employee satisfaction were excluded. The chi-square difference between these models was 478.3, which was significant ($p < .01$) at 5 degrees of freedom. Therefore, as in the case of trust, this indicates that the set of transformational and transactional leader behaviors had an important impact on employee satisfaction, and was essential to the fit of the model.

Model E is also the same as Model B, with the exception that it excludes the trust to organizational citizenship behavior relationships. The change in chi-square between Model E and Model B was statistically significant ($\Delta\chi^2 = 36.8$; df = 5; $p < .01$), which indicates that the Trust → OCB relationships make an important contribution to the fit of the overall model, and these paths should not be omitted.

Finally, the effects of satisfaction on citizenship behaviors were removed from Model

Table 8
Model Descriptions and Comparisons

Model	*Substantive Interpretation*	*Relationships Omitted*	*Goodness of Fi**			*Chi-Square Differences*		
			χ^2	*df*	*TLI*	χ^2	*df*	ΔTLI
A	Full model (i.e., mediating and direct effects)	None	3554.3	1211	.92	—	—	—
B	Full model w/o TLB → OCB relationships (i.e., mediating effects only)	GA(3,1)-GA(7,5)	3585.6	1236	.92	30.3	25	< .01
C	Full model w/o TLB → TRUST relationships	GA(1,1)-GA(1,5)	4878.0	1241	.88	1292.4	5	.04
D	Full model w/o TLB → SAT relationships	GA(2,1)-GA(2,5)	4063.9	1241	.91	478.3	5	.01
E	Full model w/o TRUST → OCB relationships	BE(3,1) BE(4,1) BE(5,1) BE(6,1) BE(7,1)	3622.4	1241	.92	36.8	5	< .01
F	Full model w/o SAT → OCB relationships	BE(3,2) BE(4,2) BE(5,2) BE(6,2) BE(7,2)	3588.1	1241	.92	2.5	5	< .01

Note: *The null model chi-square used to calculate the Tucker-Lewis goodness of fit index (TLI) was 33922.7 (df = 1326).

B to produce Model F. The change in chi-square due to the omission of these relationships was not significant ($\Delta\chi^2 = 2.5$; df = 5; $p > .05$). It, therefore, appears that, as a group, the citizenship behaviors were not influenced by employee satisfaction, and that omitting these relationships would not significantly affect the fit of the model.

Taken together, the model comparisons summarized in Table 8 indicate that (a) the leader behaviors (as a group) do not have any direct effects on OCBs, (b) the leader behaviors (as a group) influence both employee trust and satisfaction, and (c) trust influences OCBs, but follower satisfaction does not. Therefore, it appears that the aggregate effects of the leader behaviors on OCBs are *indirect*, rather than *direct*, in that they are mediated by followers' trust in their leaders.

Individual Relationships

The model comparisons discussed above were conducted to test the aggregate—not individual—relationships depicted in Figure 2. These tests are conceptually analogous to overall F-tests for sets of effects (e.g., MANOVAs). As a result, it is possible that even though the overall chi-square difference test for one set of effects is not significant, individual variables within the set could have significant effects. Conversely, in instances where the aggregate effects are significant, it is possible that some of the individual effects for variables within that set are not. In order to examine the individual effects of each variable, the statistical significance of the parameter estimates for the full (saturated) model were examined.

The first two columns of estimates for the full model are shown in Table 9. The *direct* effects of the transformational and transactional leader behaviors on the organizational citizenship behaviors are shown in the first section of this table. Remember that the overall test of these effects was non-significant, indicating that the leader behaviors as a group do not directly influence the OCBs as a group. Although as shown in the table this appears to be true of the transformational leader behaviors, it is not true of the transactional leader behavior examined in this study. Indeed, as indicated in Table 9, contingent reward behavior actually had a significant positive impact ($p < .01$) on both sportsmanship ($\beta_{std.} = .143$) and altruism ($\beta_{std.} = .147$). Note that this effect is over and above the effects of trust on these two forms of OCB.

The effects of leader behaviors on both Trust and Follower Satisfaction are shown in the first two columns of the second section of Table 9. The aggregate effects indicated that leader behaviors had a significant impact on both of these constructs, explaining 85% of the variance in trust and 64 percent of the variance in satisfaction. As shown in Table 9, trust was significantly influenced by all of the transformational leader behaviors. It was positively influenced by the "core" transformational leader behaviors ($\beta_{std.} = .800$) and individualized support ($\beta_{std.} = .320$), but was negatively influenced by high performance expectations ($\beta_{std.} = -.078$) and intellectual stimulation ($\beta_{std.} = . - .130$). However, contrary to what was suggested by the aggregate effects, trust was not significantly influenced by transactional leader behavior (i.e., contingent reward behavior). Similarly, although satisfaction was significantly influenced by the core transformational behaviors ($\beta_{std.} = .700$), individualized support ($\beta_{std.} = .165$), and intellectual stimulation ($\beta_{std.} = -.164$), it was not influenced by contingent reward behavior, either.

The final section of Table 9 shows the effects of trust and satisfaction on organiza-

Table 9
Parameter Estimates for Full Model With and Without Common Method Variance

Parameter	*Description*	*Full Model*		*Full Model Controlling for Common Method*	
		Unstd.	*Std.*	*Unstd.*	*Std.*
	Leadership Behavior to OCB Relationships				
GA (3,1)	Transformational leadership → Conscientiousness	−.033	−.047	.035	.038
GA (3,2)	High performance expectations → Conscientiousness	.033	.037	−.019	−.019
GA (3,3)	Individualized support → Conscientiousness	.012	.020	.039	.034
GA (3,4)	Intellectual stimulation → Conscientiousness	.030	.042	−.010	−.010
GA (3,5)	Contingent reward behavior → Conscientiousness	.000	.000	.046	.052
GA (4,1)	Transformational leadership → Sportsmanship	−.287	−.276	−.176	−.127
GA (4,2)	High performance expectations → Sportsmanship	.059	.044	.008	.005
GA (4,3)	Individualized support → Sportsmanship	.080	.094	.112	.066
GA (4,4)	Intellectual stimulation → Sportsmanship	.012	.011	−.010	−.007
GA (4,5)	Contingent reward behavior → Sportsmanship	.118*	.143	.168**	.129
GA (5,1)	Transformational leadership → Civic virtue	−.192	−.254	−.102	−.101
GA (5,2)	High performance expectations → Civic virtue	.024	.025	.010	.010
GA (5,3)	Individualized support → Civic virtue	.004	.007	.021	.017
GA (5,4)	Intellectual stimulation → Civic virtue	.071	.095	.066	.069
GA (5,5)	Contingent reward behavior → Civic virtue	.048	.080	.059	.062
GA (6,1)	Transformational leadership → Courtesy	−.255	−.297	−.109	−.096
GA (6,2)	High performance expectations → Courtesy	.070	.064	.027	.022
GA (6,3)	Individualized support → Courtesy	−.021	−.029	.002	.002
GA (6,4)	Intellectual stimulation → Courtesy	.037	.044	.007	.007
GA (6,5)	Contingent reward behavior → Courtesy	.046	.067	.076	.070

GA (7,1)	Transformational leadership → Altruism	−.108	−.149	.013	.013
GA (7,2)	High performance expectations → Altruism	.014	.015	.030	.030
GA (7,3)	Individualized support → Altruism	−.020	−.034	−.007	.006
GA (7,4)	Intellectual stimulation → Altruism	.003	.004	−.033	.036
GA (7,5)	Contingent reward behavior → Altruism	.085*	.147	.123**	.135
	Leader Behavior to Trust and Satisfaction Relationships				
GA (1,1)	Transformational leadership → Trust	1.070**	0.800	.113*	.329
GA (1,2)	High performance expectations → Trust	−.132*	−.078	.049	.136
GA (1,3)	Individualized support → Trust	.351**	.320	.114**	.267
GA (1,4)	Intellectual stimulation → Trust	−.173**	−.130	.019	.057
GA (1,5)	Contingent reward behavior → Trust	.004	.004	−.043*	−.132
GA (2,1)	Transformational leadership → Satisfaction	.950**	.700	.638**	.500
GA (2,2)	High performance expectations → Satisfaction	.142	.083	.155	.116
GA (2,3)	Individualized support → Satisfaction	.183**	.165	.219**	.139
GA (2,4)	Intellectual stimulation → Satisfaction	−.221*	−.164	−.201*	−.164
GA (2,5)	Contingent reward behavior → Satisfaction	.077	.072	.090	.075
	Trust and Satisfaction to OCB Relationships				
BE (3,1)	Trust → Conscientiousness	.168**	.319	.706**	.259
BE (4,1)	Trust → Sportsmanship	.212*	.273	.733*	.182
BE (5,1)	Trust → Civic virtue	.097	.172	.156	.053
BE (6,1)	Trust → Courtesy	.295**	.459	.660**	.199
BE (7,1)	Trust → Altruism	.149*	.276	.541**	.194
BE (3,2)	Satisfaction → Conscientiousness	−.026	−.050	−.030	−.041
BE (4,2)	Satisfaction → Sportsmanship	.029	.038	.036	.033
BE (5,2)	Satisfaction → Civic Virtue	.048	.087	.040	.051
BE (6,2)	Satisfaction → Courtesy	.020	.031	.016	.018
BE (7,2)	Satisfaction → Altruism	.018	.035	.011	.014

Notes: *$p < .05$.
**$p < .01$.

tional citizenship behaviors. Consistent with the aggregate findings, satisfaction did not have any effects on the individual OCBs. The effects of trust on the individual OCBs also closely paralleled the aggregate findings reported earlier, with trust having a positive influence on conscientiousness ($\beta_{std.} = .319$), sportsmanship ($\beta_{std.} = .273$), courtesy ($\beta_{std.} = .459$), and altruism ($\beta_{std.} = .276$). The one exception was that trust did not have a significant impact on civic virtue.

Assessment of Effects of Same-Source Variance

An interesting finding of our study was that the amount of variance accounted for in trust (85%) and satisfaction (64%) was substantially greater than the amount of variance accounted for in the OCB constructs (conscientiousness = 9%, sportsmanship = 9%, courtesy = 10%, and altruism = 8%). One partial explanation for these rather dramatic differences in the amount of variance explained is that the leader behaviors, trust, and satisfaction measures all were filled out by the same person, and thus trust and satisfaction share common method variance with their antecedents (cf. Podsakoff & Organ, 1986). The OCBs, on the other hand, do not share this source of bias, because they were filled out by the managers.

To assess the potential impact of this form of bias on the relationships among the leader behaviors, trust, and satisfaction, we refit the model, with a "same-source" first-order factor added. This extra factor was defined as having all 28 of the followers' self-report measures as indicators (i.e., the 14 transformational and 5 transactional leader behavior measures, 6 trust measures, and 3 satisfaction measures), and thus captures any additional *systematic* variance common to those measures (e.g., common-rater bias, social desirability, "yea-saying," and so forth).[5]

Consequently, this procedure allowed us to investigate whether the proportion of variance explained in trust and satisfaction by the leader behaviors was inflated by a same-source bias. We found that the inclusion of this factor did, indeed, dramatically reduce the amount of variance in trust and satisfaction accounted for by the leader behaviors. The proportion of variance in trust decreased from 85% to 28%, and the proportion of variance in satisfaction decreased from 64% to 29%.

However, although the addition of this factor substantially reduced the proportion of variance explained, it did *not* eliminate it. Even with same-source variance controlled, the leader behaviors still accounted for almost 30% of the variance in trust and satisfaction. Moreover, as indicated in the two right-most columns in Table 9, in only two cases did same-source variance influence the conclusions drawn about the impact of leader behaviors on trust or satisfaction. The impact of one transformational leader behavior—high performance expectations—on trust becomes insignificant when same-source variance was taken into account. And, surprisingly, contingent reward behavior, which did not originally influence trust, was found to have a negative impact when same-source variance was taken into account. Thus, the relationships between the transformational leader behaviors and trust and follower satisfaction identified in this research were not wholly attributable to same-source variance.

It should be noted that the procedure described above is a general technique for statistically controlling for same-source variance, and may thus be of interest to other researchers outside of the leadership domain. Indeed, anytime measures are obtained

for both independent and criterion variables from the same individual, this procedure may be useful, provided that there are a sufficient number of indicators of the constructs. For example, those conducting research on the relationships between task characteristics and employee satisfaction may find this procedure useful to partial out same-source variance effects. Similarly, researchers interested in the effects of role perceptions on employee attitudes may find the method useful as well. Because the relationships among the theoretical constructs of interest may be either strengthened or weakened by partialling out same-source variance, the effort required to implement this procedure may be well spent.

Two important limitations of this procedure, however, should be recognized. First, as noted earlier, the "source factor" captures *all* of the additional systematic variance common to all of the measures over and above that accounted for by the "traits" themselves. Because this factor is a composite of *any systematic variance among the measures* remaining after the trait variance has been accounted for, labelling it a "source" factor may be misleading in some cases. Indeed, it may not pick up source variance at all, but instead may pick up systematic trait variance other than that due to the traits of interest. Second, depending upon the theoretical model being tested, the same-source factor also may inappropriately capture actual variance between the *constructs* of interest. Thus, although this method holds some promise for dealing with a pervasive problem in our field, it should be used with caution and the full realization of its potential limitations.

DISCUSSION

The goal of this study was to examine the impact of transformational leader behaviors on organizational citizenship behaviors, and the potential mediating role played by subordinates' trust and satisfaction in that process. To achieve this objective, (a) scales were developed to measure six transformational leader behaviors and five organizational citizenship behaviors, and (b) the direct and indirect effects of these transformational leader behaviors on the organizational citizenship behaviors were examined. Moreover, in keeping with Bass' (Avolio & Bass, 1988; Bass, 1985) argument that the effects of transformational leadership behaviors *augment* the effects of transactional leadership behaviors, we examined the effects of the transformational behaviors in the empirical context of the effects of the principle transactional leader behavior identified by him—contingent reward behavior.

Psychometric Properties of the Scales

The examination of the psychometric properties of the leadership scales designed to measure both transformational and transactional behaviors indicated good correspondence between the *a priori* assignment of items to the dimensions and the factor structure observed, high internal consistency reliabilities for each of the dimensions (α's ranging from .78 to .92), and an adequate level of discriminant validity between the dimensions. However, even though all the dimensions were reliable and empirically

distinguishable, the results indicated that three of the transformational behaviors (articulating a vision, providing an appropriate model, and fostering acceptance of group goals) were indicators of a second-order latent construct. The overall fit of the confirmatory factor model with this second-order factor included was very good.

Thus, it appears that there are four key transformational leader behaviors measured by our scales, and one transactional behavior. One of the dimensions taps the "core" transformational leadership activities identified in earlier research by Bradford and Cohen (1984), House (1977), and Kouzes and Posner (1987), among others. These activities include developing a vision and getting employees to accept it, being a good example of the values and behaviors that are essential to fulfilling the vision, and getting employees to put the interests of the group or organization above their self-interest. A second dimension captures House's (1977) notion that transformational leaders have high performance expectations, and convey these expectations to their subordinates. Our third dimension is consistent with Bass' (1985) individualized consideration construct, and reflects the extent to which the leader shows concern for the personal needs and feelings of his or her subordinates. The fourth dimension is consistent with another of Bass' (1985) constructs (intellectual stimulation), and measures the extent to which the leader stimulates employees to rethink the way they perform their duties. The final dimension of leader behavior we measured is the extent to which leaders encourage employees by providing recognition and positive feedback for work well done, and thus is consistent with Bass' (1985) notion of transactional leadership behavior.

It is worth noting that although we have explained the second-order factor as resulting from the fact that these three behaviors somehow capture the essence of transformational leadership, it is also possible that this factor structure occurred for other reasons. One possibility is that the Articulating a Vision, Providing an Appropriate Model, and Fostering Acceptance of Group Goals items all tended to emphasize the *outcomes* of the leader's behavior somewhat more than the other transformational leader items. Alternatively, the items for these three constructs may have been more *complex* than the other transformational leader items, because they required respondents to draw inferences or judgments about the leader's thought processes and behaviors.

Finally, on a more general level, it is possible that either because of their outcome orientation, their complexity, or some combination of these and other factors, these measures are more likely to arouse respondents' implicit theories of leadership, which we know from much prior leadership research can affect leader behavior ratings (cf. Lord, 1985; Lord, Binning, Rush, & Thomas, 1978; Phillips & Lord, 1986). This is, of course, a difficult issue to address in field research, and will require additional empirical investigation in more controlled settings before it can conclusively be ruled out.

The psychometric properties of our organizational citizenship behavior scales also were very good. The confirmatory factor analysis of this scale indicated good correspondence with Organ's (1988a; In Press) theoretical framework. Five factors were identified: conscientiousness, sportsmanship, civic virtue, courtesy, and altruism. All of the scale items loaded significantly on their hypothesized factors. Moreover, the internal consistency reliability of all five subscales exceeded .80, except for civic virtue ($\alpha = .70$), and evidenced an adequate level of discriminant validity. These results

indicate that managers can, indeed, discriminate between Organ's five dimensions of OCBs.

Aggregate Effects of Leader Behaviors on OCBs

An examination of the aggregate effects of the set of transformational leader behaviors on the set of organizational citizenship behaviors indicates that the effects of these leader behaviors on OCBs are *indirect,* rather than *direct,* in that they are mediated by followers' trust in their leaders. More specifically, our findings generally showed that: (a) transformational leader behaviors had no direct effects on OCBs, (b) transformational leader behaviors influenced both employee trust and satisfaction, and (c) trust influenced OCBs, but employee satisfaction did not. Moreover, it is important to note that these findings are completely independent of the effects of transactional leader behaviors, and also were relatively robust in comparison to the effects of common method biases.

In contrast, the effects of the transactional leader behavior (contingent rewards) on OCBs produced a markedly different pattern. Unlike the transformational leader behaviors, contingent reward behavior had a direct positive impact on both altruism and sportsmanship, but no effect at all on either trust or employee satisfaction. Thus, in contrast to the transformational behaviors, transactional leader behavior influenced OCBs *directly,* rather than indirectly. The fact that these two types of leader behavior appear to influence extra-role performance in very different ways emphasizes the importance of the distinction between transactional and transformational leader behaviors.

One possible explanation for why transactional leader behaviors have direct rather than indirect effects may have to do with the nature of the behaviors themselves. Transactional leader behaviors are ones which are founded on some sort of exchange, or give and take, between the leader and the subordinate. If, as shown by Jackson, Keith, and Schlacter (1983), managers consider both in-role and extra-role behaviors when evaluating employee performance, they may also recognize accomplishments in both of these areas as well. This may cause employees to see the performance of OCBs as a means of obtaining recognition and other forms of rewards, thus motivating them to engage in organizational citizenship behavior.

Individual Effects of Leader Behaviors on OCBs

An examination of the individual level results produced some interesting findings. The standardized estimates suggest that the "core" transformational leader behaviors, individualized support, and intellectual stimulation, were the key determinants of both trust and satisfaction. The "core" transformational behaviors and individualized support both had positive effects, as expected. However, intellectual stimulation was found to have a negative impact on both trust and satisfaction.

One possible explanation for this surprising finding may have to do with the effect of intellectual stimulation on role ambiguity, conflict, and stress. Although intellectual stimulation may produce desirable effects in the long run, it may be that in the short run, leaders who continually urge or exhort followers to search for new and better methods of doing things create ambiguity, conflict, or other forms of stress in the minds of those followers. If the increased task demands produced by a leader's intellectual

stimulation behavior increase stress, ambiguity, and conflict, we might expect that followers will express less trust in the leader and engage in fewer OCBs. Indeed, this is consistent with recent research (cf. Cohen, 1980; Motowidlo, Packard, & Manning, 1986) that suggests that stress induced by increased task demands decreases interpersonal sensitivity and helping behavior.

Another possible reason why intellectual stimulation may reduce follower trust and satisfaction may have to do with the destabilizing nature of intellectual stimulation itself. According to Avolio and Bass (1988), intellectual stimulation causes a "cognitive reappraisal of current circumstances," thus possibly reversing an individual's "figure-ground" and leading to a questioning of "old" and perhaps comfortable assumptions.[6] It may be that this process is dissatisfying, and that leaders who continually do this are trusted less because they are perceived as being less predictable and/or dependable.

One additional finding of note is that high performance expectations reduced employee trust. Although it is not immediately obvious why this occurred, it may have to do with the way in which we measured high performance expectations. House (1977) suggests that two aspects of high performance expectations are important. One is that the leader must communicate those expectations to his/her subordinates. The other is that the leader must let them know that he/she is confident they can meet these expectations. In retrospect, our measure seems to do a good job of tapping the former component, but not the latter. It may be natural for an employee to distrust a leader who continually demands high levels of performance without ever expressing any confidence in the employee's ability to achieve those expectations.

RIVAL HYPOTHESES

The results of our study generally show that transformational leader behaviors influenced follower citizenship behaviors indirectly through trust. Although we have argued that it is transformational behavior that indirectly influences follower citizenship behaviors, there are some alternative explanations for our findings. For example, one could argue that our results were produced by a biased selection process. It is possible that those leaders rated as high on transformational leadership in our sample were more likely to select employees who naturally perform more citizenship behaviors than nontransformational leaders. This selection bias could have produced a spurious correlation between transformational leadership and citizenship behavior. However, our guess is that this rival hypothesis is unlikely in the present situation because, as in many large corporations, the leader is only one of many people involved in the selection decision, and may not even be the most influential person.

Another potential explanation for our findings has to do with the nature of the sample used in the present study. An examination of the characteristics of our sample indicates that it contains a substantial proportion of managerial personnel. Given that several surveys (cf. Kouzes & Posner, 1987) have shown that managers rate honesty and trustworthiness as the key attributes of effective leaders, it is possible to argue that transformational leaders influence citizenship behaviors through trust only in samples with a large portion of managerial personnel. Our sample also tended to be highly educated, and quite professional in orientation, and, although we have no reason to

suspect that this is the case, it is possible that our findings hold only under these conditions. That is, in samples of blue-collar or nonprofessional employees with lower levels of education, transformational leader behavior may not influence citizenship behavior either directly or indirectly via trust. Of course, both of these are empirical issues that can only be resolved through additional research.

FUTURE RESEARCH

The findings of this study demonstrate that transformational leadership influences organizational citizenship behaviors through followers' trust in their leader. These findings validate the basic notion that transformational leader behaviors influence followers to perform "above and beyond the call of duty." However, these leader behaviors have been hypothesized to influence other outcome variables as well, and these outcome variables are undoubtedly influenced by additional antecedents. Thus, two obvious objectives of future research would be to empirically examine (a) the effects of transformational leader behaviors on a wider range of criterion variables, and (b) the effects of additional antecedents on OCBs.

Avolio and Bass (1988), for example, have suggested that transformational leadership influences subordinates' effort, satisfaction with their leaders' performance, and their ratings of the effectiveness of their work groups. Moreover, Boal and Bryson (1988) suggest that transformational behavior on the part of the leader will enhance the subordinate's self-esteem, arouse their needs, prompt them to accept challenging goals, and enhance their performance expectations, and Kuhnert and Lewis (1987) note the ability of transformational leaders to "motivate followers to accept and accomplish difficult goals that followers would have not normally pursued" (p. 653) and get followers to internalize the values of the leader. Thus, there appear to be many additional benefits of transformational leadership that need to be examined.

There are also some important antecedents of OCBs, in addition to transformational leadership, that need to be examined in future research. One potentially important antecedent can be found in the work of Graen and his colleagues (Danserau, Graen, & Haga, 1975; Graen, 1976; Graen & Cashman, 1975; Graen & Scandura, 1987). They argue that instead of thinking of a leader's style in a general sense, it is better to look at the dyadic exchange relationship between a leader and a particular subordinate. In the exchange relationship with "out-group" subordinates, there is a relatively low level of mutual influence between the leader and followers, and the leader has lower performance expectations of the followers. In contrast, in the exchange relationship with "in-group" subordinates, there is a relatively high level of mutual influence, and leaders have broader expectations of the followers' performance that include working harder and being more committed to task objectives (being more conscientious?), being loyal to the leader (demonstrating trust in the leader?), and sharing administrative duties (being altruistic and exhibiting civic virtue?). Thus, the nature of the dyadic exchange relationship between the leader and followers may be one of the factors that encourages some followers to "go above and beyond the call of duty."

Another major focus of future leadership research should be on trust. In our study, we found that transformational leader behaviors influence OCBs only indirectly

through their effects on employees' trust. Moreover, the inclusion of trust in this study rendered the previously demonstrated relationships (Bateman & Organ, 1983; Puffer, 1987; Motowidlo, 1984; Smith et al., 1983) between employee satisfaction and OCBs insignificant. Given these findings, we believe that research directed at the potential causes and consequences of employees' trust in their leader would make a substantial contribution to the organizational behavior literature.

A first step in providing a better understanding of trust would be to develop a more comprehensive conceptualization of this construct. Our measure of trust tapped into the employees' faith in and loyalty to the leader. Certainly, there may be other dimensions of trust in an organizational setting which may need to be explored to more fully understand the causes and consequences of this construct. For example, Cook and Wall (1980) identify faith, which is captured by our measure, and confidence in the leader's ability, as key components of trust. Moreover, in addition to confidence and faith in the leader, Giffin (1967) argues that some degree of "reliance on the leader" should be included in measures of trust. Therefore, future research should consider broadening the conceptualization of trust beyond that used in the present study.

Once the dimensionality of trust has been more fully assessed, a second line of inquiry would be to identify other ways that a leader can develop trusting relationships with subordinates. The current study clearly demonstrated that transformational leader behaviors influence followers' trust in and loyalty to the leader. Beyond this, several other antecedents may also be important. First, as noted in our earlier discussion, the nature of the dyadic relationship between leaders and their followers may have effects on trust (cf. Danserau, Graen, & Haga, 1975; Graen, 1976; Graen & Cashman, 1975; Graen & Scandura, 1987). Specifically, we expect that followers who are members of the leader's "in-group" will be more trusting of their leaders than members of the "out-group," because the leader gives them greater "job latitude, influence in decision making, open and honest communication, support of the [follower's] actions, and confidence in the consideration for the [follower]" (Dansereau et al., 1975, p. 49).

Second, the procedures which leaders use to allocate important organizational outcomes to their subordinates may have an impact on trust through employee perceptions of fairness (Alexander & Ruderman, 1987; Folger & Konovsky, 1989; Organ, 1988a). Folger and Konovsky (1989) reported that two dimensions of procedural justice, the degree of feedback present in performance appraisal decisions and the amount of recourse subordinates felt they had regarding performance appraisal decisions, were both significantly related to employees' trust in their supervisors. Similar results have also been reported by Alexander and Ruderman (1987) in a survey of more than 2000 federal government employees. They found a positive relationship between perceptions of both procedural and distributive justice with trust in management. Thus, assessing employees' perceptions of fairness in future research may help us better understand how to build employee trust.

Another factor which may influence employee trust is whether or not a manager uses a participatory management style. Folger (1977, 1986, 1987) has reviewed evidence that indicates that employees' "voice" (i.e., the opportunity for employees to contribute information to the decision processes of their managers) increases their perceptions that they have been treated fairly. As previously argued, increases in perceptions of fairness may enhance trust in the leader. Thus, use of a participatory management style may

indirectly influence employees' trust in their leader through followers' perceptions of fairness.

One final thing a leader can do to enhance employee trust is to be more careful of selecting employees in the first place. Some people may just be more likely to trust their supervisors than others. McCrae and Costa (1987), for example, have identified two personality characteristics, neuroticism and antagonism, which could describe a person who is seldom trusting. According to their model, a person high in neuroticism is insecure, anxious, and often has irrational beliefs, while a person high in antagonism sets himself against others and is suspicious and skeptical. Whether due to their insecurity and anxiety, or because they are suspicious and skeptical, it seems unlikely that neurotic or antagonistic people will be very trusting. Therefore, future research is needed to determine how these and other personality characteristics may influence followers' trust.

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NOTES

1. Although there are differences between transformational and charismatic leader behaviors, they are similar in many respects. The principal reason we chose to use the term transformational leadership is that it is broader in the sense that includes a wider variety of leader behaviors. Thus, unless otherwise indicated in our discussion, we will use the term transformational leadership throughout the paper.
2. The authors would like to acknowledge the "altruism" of Dennis Organ in the preliminary stages of the development of the OCB scales.
3. Given the extensive research (Dunham, Smith, & Blackburn, 1977; Gillet & Schwab, 1975; Weiss et al., 1967) on the short form of the MSQ measure of satisfaction, factor analysis was not conducted on this scale.
4. To test directly for the discriminant validity of our constructs, we statistically examined whether the correlations among the latent constructs were significantly less than 1.0. Specifically, this involved testing whether each of the individual off-diagonal elements of the phi matrix in our confirmatory factor model were significantly less than 1.00. This procedure has the advantage of testing discriminant validity on the latent construct level, where it should be tested, rather than on the level of the measures. It is not, however, a very stringent test in the sense that one would like to demonstrate more strongly that the constructs are less than perfectly correlated to establish discriminant validity. Nevertheless, it is the convention in the structural modeling literature to evaluate the discriminant validity of constructs in this way (cf. Bagozzi, 1978, 1980; Burnkrant & Page, 1982; Widaman, 1985; Schmitt & Stults, 1986), and it is clearly an improvement over simply "eyeballing" the correlations—which is the most commonly used method of determining discriminant validity.
5. As expected, the estimated factor loadings for the method factor were all positive, statistically significant ($p < .01$), and, with only two exceptions, smaller than their corresponding "trait" factor loadings, thus lending credence to the substantive interpretation given to this factor.
6. We would like to thank one anonymous reviewer for pointing out this possibility.

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