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Need for leadership as a moderator of the relationships between leadership and individual outcomes

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Abstract

Earlier research on situational leadership theories has produced little and partly contradictory evidence about the role of situational moderator variables in explaining the relationship between leadership and outcomes. In this article, we propose to concentrate on need for leadership as a singular moderator of the relationships between leadership and employee outcomes. Using a sample of 958 Dutch employees from various organizations, the moderator hypothesis was tested. Need for leadership was paired with three leadership factors and five outcome variables, generating 15 possible moderating effects. Five of these were significant. Although the findings compare favorably with other studies using leadership moderators, the effects are weak, and there is not much evidence that leadership–outcome relations are reversed by need for leadership. © 2002 Published by Elsevier Science Inc.

1. Introduction

In 1948, Knickerbocker proposed a leadership theory based on the needs of subordinates. He postulated, for example, that when “the objectives of the group require greater diversity of effort and greater coordination, the need for a leader will increase” (Knickerbocker, 1948, p. 29). Furthermore, he believed that the subordinates’ leadership needs, in their turn, determined whether a leader could be effective or not. After a short flurry of studies on

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concepts related to need for leadership such as subordinates' leadership expectations and leadership preferences (Foa, 1957; Hunt & Liebscher, 1973; Mannheim, Rim, & Grinberg, 1967; Yukl, 1971), Hunt and Liebscher (1973) concluded that "a more refined way of classifying situational differences would seem a logical next step" (p. 76). Around the same time, several leadership theories sprang to life proposing moderating effects of a range of subordinate, task, and organizational factors on the relationships between leadership characteristics and individual or organizational outcome variables. Examples of these theories include Fiedler's (1967) contingency theory, Hersey and Blanchard's (1969, 1982) situational leadership theory, House's (1971) path-goal theory, and Kerr and Jermier's (1978) substitutes for leadership theory.

Many studies have been conducted to test the validity of situational theories of leadership, but few have shown support of the moderator hypotheses postulated. There is some positive evidence on moderators in the contingency theory (Schriesheim, Tepper, & Tetrault, 1994) and path-goal theory (Wofford & Liska, 1993). Yet, the effects found are few and of modest strength. The same applies to the substitutes theory (Howell & Dorfman, 1986; Podsakoff, MacKenzie, & Fetter, 1993; Williams et al., 1988). Summarizing the findings on the substitutes for leadership theory, De Vries (1997) noted a general absence of significant moderating effects. Only 9.3% of the published hypothesized interactions were significant and most of these interactions were not in the predicted direction.

In spite of these disappointing findings, it would be wrong to conclude that research on situational moderators is not appropriate. The lack of findings may actually be due to the often too refined moderators used in the situational leadership theories. In this article, we argue for a more parsimonious situational leadership model, which uses, following the example set by earlier literature (e.g., Knickerbocker, 1948; Seers & Graen, 1984), "need for leadership" as the single most important moderator of the effect of leadership. It is in line with the basic idea of Kerr and Jermier's (1978) substitute theory, i.e., that under certain conditions, leadership may have little or no added value.

However, we assume that employees are normally aware of what the leader can and cannot contribute. Therefore, the situational factors known from the moderator literature, such as task ambiguity or employee level of expertise, probably have their effect on leadership effectiveness through the subordinate's assessment of what they imply for the role of the leader. Thus, according to our conception, need for leadership is a "catch-all" variable, which mediates the effects of other situational variables on the relationships between leadership and personal and work outcomes.

The aim of this article is to introduce the concept of need for leadership and to examine its role as a moderator of the relationships between leadership characteristics and subordinate outcomes. Our hypothesis is: Need for leadership has a moderating effect on the relation between leadership characteristics and individual outcomes. With low need for leadership, the relation between leadership and outcomes is weaker compared with high need for leadership.

Adopting the perspective of path-goal theory (House, 1971), we define need for leadership as the extent to which an employee wishes the leader to facilitate the paths towards individual, group, and/or organizational goals. Need for leadership should be understood as an acquired need, or rather a quasi-need in the sense of Lewin (1951), which

can change with circumstances. The need comes about through socialization processes and is provoked in social settings that entail expectations regarding hierarchical relations and demands for action. The need is contextual in the sense that it depends on the person's assessment of the particular setting. If the setting is such that the person lacks the needed competence or feels insecure, s/he will want the leader to act and help. When a change of setting occurs, the person may feel more confident in his/her skills, feel more secure, and lack the desire for an intervention by a leader.

Need for leadership seems to be of immediate relevance for what happens in the interaction between the leader and the subordinate. The subordinate will welcome a leader's intervention when s/he considers it as instrumental to the achievement of a work goal. However, an unwanted intervention, or one considered to be unnecessary, is likely to result in opposition or neglect at the side of the subordinate. Other situational variables proposed in leadership theory seem to be more remotely linked to the leader–subordinate interaction. For instance, task ambiguity is not likely to have a direct impact because what happens in the interaction between the leader and the subordinate would depend on the latter's interpretation of the situation. If s/he would feel able to resolve the ambiguity by finding out oneself, or asking others, there might be little room for a positive effect of the leader's intervention. Thus, need for leadership seems to be a more proximal variable to the leader–subordinate interaction, whereas most other variables known from the literature seem to be more distal, and, hence, may have a less clear effect.

An advantage of the need for leadership concept is that it can be linked to a variety of personal, task, and organizational factors at the same time. Thus, a specific constellation of such factors — a high degree of personal competence, a job with limited variety and autonomy, little task-provided feedback, and a heavy reliance on written procedures — may produce a certain level of need for leadership. Instead of investigating the moderating effects of all proposed situational factors separately as well as in their interaction, one might study how these factors relate to need for leadership and concentrate on the moderating effect of this variable only. Such an investigation would not only make sense theoretically, as one would like to understand how the subordinate responds to his/her work setting as a whole, but also methodologically, since a simultaneous test of multiple moderating effects is almost impossible to conduct.

Some studies have been conducted on constructs that resemble need for leadership. Most of these have provided limited or no information on the definition and item content of these constructs and some have used unreliable scales, small samples, and inadequate statistical techniques. Furthermore, the subordinate leadership needs have usually been explored as part of a wider study. Consequently, although these studies have been precursors of what may be considered a promising area of research, they have not been integrated in the mainstream leadership research.

A survey of the literature provided us with the following closely related concepts: subordinates' leadership expectations (Foa, 1957; House, Filley, & Gujarati, 1971; Mannheim et al., 1967), leadership preference (Hunt & Liebscher, 1973; Yukl, 1971), need for closer supervision (Ashkanasy & Gallois, 1994), need for supervision (De Vries, Roe, & Taillieu, 1998; Martin, 1983), and leadership need strength (Seers & Graen, 1984). Leadership studies that used more generalized "needs" include studies on need for clarity

(Ivancevich & Donnelly, 1974; Keller, 1989), need for structure (Stoker & De Jong, 1996), need for autonomy (Emans & Radstaak, 1990; Landeweerd & Boumans, 1994), and need for independence (Kerr & Jermier, 1978).

Recent studies that explicitly posited and tested the moderator hypothesis using a variable resembling need for leadership (De Vries et al., 1998; Emans & Radstaak, 1990; Keller, 1989; Landeweerd & Boumans, 1994; Stoker & De Jong, 1996) have provided some empirical support. In those cases in which a significant moderator effect was detected, i.e., whenever employees needed clarity in their job (Keller, 1989), needed more structure (Stoker & De Jong, 1996), or needed less autonomy (Emans & Radstaak, 1990; Landeweerd & Boumans, 1994), leadership was more strongly related to subordinate outcomes than in cases in which employees did not need clarity or did need autonomy.

However, De Vries's et al. (1998) study showed opposite effects. In a study using two samples of insurance agents, they found higher need for supervision to be associated with a weaker (positive) relation between task-oriented leadership and work stress. De Vries et al. explain the findings by arguing that with little need for supervision and high task-oriented leadership, the insurance agents may have felt under pressure and without the possibility of turning the supervisor's directions into work activity.

Thus, the studies described above, although providing a more follower-centered view of the leadership process, are at best inconclusive. However, theoretically, advances have been made by concentrating on characteristics of the subordinates and on how these characteristics may influence leadership–outcomes relationships. A study using a large sample from diverse settings with a reliable measurement instrument may provide a better test of the hypothesis that need for leadership moderates the relationships between leadership and outcome variables.

2. Method

2.1. Sample

The data for testing the hypothesis were gathered in a crossfunctional and crossorganizational sample of 958 employees, i.e., the sample contained people working in different jobs within different firms. It was drawn in the following way. First, a random sample of 4523 households in the Dutch region Middle-Brabant was contacted by telephone in order to find out whether they included an employee who was willing to participate in the study. Second, a questionnaire was sent to 2000 employees who orally agreed to participate. A total of 958 (47.9%) usable questionnaires was returned.

Of the respondents, 291 (30.4%) were female and 665 (69.4%) were male. The average age was 39.2 years (S.D. = 9.6). As for the educational level, 3.4% completed junior high school, 15.4% completed high school, 14.7% completed lower occupational training, 34.1% completed middle occupational training, 24.3% completed higher occupational training, and 8.1% were university graduates. Although the service sector is somewhat oversampled (51.6% in the sample vs. 32.7% in the Dutch workforce) and banks/insurance and trade/hotels are somewhat undersampled (5.3% vs. 15.9% and 8.4% vs. 19.2%, respectively), generally,

the sample is representative of the Dutch (Centraal Bureau voor Statistiek, 1996) and the Middle Brabant workforce (Samenwerkingsverband Midden Brabant, 1996) with regard to the sectors farming (2.6%), mining (0.2%), industry (16.9%), public utilities (2.1%), construction (9.3%), and transport and storage (3.6%).

2.2. *Need for leadership*

All variables reported in this study are scored on 1–5 Likert-like scales. Unless otherwise reported, the answering categories range from *completely disagree* (1) to *completely agree* (5). The need for leadership measurement instrument is presented in Appendix A. Its answering categories range from *not at all* (1) to *a lot* (5). The original instrument is in the Dutch language; here, it is presented in an English translation. This scale, which has 17 items with a common stem but a different ending, describes a series of specific work goals for which the subordinate would need a contribution from his/her leader. To clarify what is meant by “leader,” four terms are used referring to people in leadership roles, i.e., the Dutch equivalents supervisor, boss, manager, and leader. De Vries (1997) has shown that the scale is unidimensional and has high reliabilities in studies among agents of an insurance company (Cronbach’s $\alpha = .91$) and employees of three municipalities (Cronbach’s $\alpha = .92$). Cronbach’s α in the present sample is .93, which confirms that the measure is homogeneous and unidimensional.

Need for leadership’s convergent and discriminant validity has been tested using Martin’s (1983) “effects of changes in supervision” and De Vries et al. (1998) “need for supervision.” All relations were in the predicted direction. Need for leadership has a significant positive relation with the following items of Martin: “Results of my work performance would be better when my leader would provide more leadership” and “I would be more satisfied when my leader would provide more leadership.” It has a significant negative relation with Martin’s items “Result of my work performance would be better when my leader would provide less leadership,” “Results of my work performance would be better when there would not be a leader anymore,” “I would be more satisfied when my leader would provide less leadership,” and “I would be more satisfied when there would not be a leader anymore.”

As predicted, there was no relation between need for leadership and effects of changes in supervision for the following two items of Martin: “Results of my work performance would be better when there would be another leader” and “I would be more satisfied when there would be another leader.” Furthermore, need for leadership has a significant positive relation with De Vries et al. (1998) need for supervision.

The mean and standard deviation of the need for leadership scale are included in Table 1, which contains descriptives and intercorrelations for all variables in this study. Compared to the midpoint (i.e., 3), on the average, employees do not seem to have a strong need for leadership ($m = 2.63$).

2.3. *Leadership*

The five leadership scales included in this study are human-oriented leadership, task-oriented leadership, charismatic leadership, leader expertise, and leader’s encouragement of

Table 1

Descriptives, reliabilities (on diagonal), and correlations (pairwise correlations; minimum = 671, maximum = 934) of variables^a

	No. respondents	No. items	Mean	S.D.	NL	HL	TL	CL	LE	ES
1. NL	871	17	2.63	0.80	.93					
2. HL	797	14	3.45	0.77	.12**	.92				
3. TL	805	10	3.06	0.69	.21**	.10**	.84			
4. CL	783	11	2.95	0.84	.24**	.73**	.43**	.93		
5. LE	809	5	2.83	0.91	.23**	.55**	.40**	.81**	.87	
6. ES	813	6	2.94	0.75	.29**	.57**	.52**	.75**	.55**	.79
7. JS	900	11	3.87	0.58	-.04	.49**	.09*	.48**	.34**	.34**
8. OC	928	6	3.67	0.88	.01	.45**	.11**	.46**	.34**	.35**
9. WS	934	7	3.02	0.73	.07*	-.21**	.19**	-.09*	-.14**	.03
10. RC	928	8	2.44	0.68	.09**	-.26**	.13**	-.15**	-.21**	-.00
11. P	908	8	3.49	0.58	-.03	-.02	.08*	-.02	-.15**	.07*
12. SU	750	–	0.00	1.00	.09*	.95**	-.04	.63**	.36**	.57**
13. IS	750	–	0.00	1.00	.18**	.25**	.31**	.64**	.87**	.27**
14. ST	750	–	0.00	1.00	.20**	.01	.90**	.36**	.19**	.64**
15. N × SU	717	–	0.00	1.00	-.00	-.03	-.03	-.04	.00	-.07
16. N × IS	717	–	0.00	1.00	.07	.03	-.05	.02	.00	-.02
17. N × ST	717	–	0.00	1.00	.01	-.07	-.12**	-.12**	-.10**	-.12**
18. CMF	755	–	0.00	1.00	.09*	.28**	.25**	.32**	.18**	.32**

^a All items are scored on a Likert (1–5) scale, except for the leadership and common method factors, which are based on factor loadings (variables 12–14 and 18) and the interaction terms (variables 15–17), which are (standardized) multiplications of (standardized) leadership and need for leadership scales; NL=need for leadership, HL=human-oriented leadership, TL=Task-oriented leadership, CL=Charismatic leadership, LE=Leader expertise, ES=Encouragement of self-management, JS=Job satisfaction, OC=Organizational commitment, WS=Work stress, RC=Role conflict, P=Performance, SU=Leader's support, IS=Leader's inspirational skills, ST=Leader's structure, N × SU=Need for leadership × Leader's support, N × IS=Need for leadership × Leader's inspirational skills, N × ST=Need for leadership × Leader's structure, CMF=Common method factor.

* $p < .05$.

** $p < .01$.

self-management. The scales for *human-oriented leadership* and *task-oriented leadership* were derived from a Dutch version (Syroit, 1979) of Fleishman's (1953) consideration and initiating structure scales of the Supervisory Behavior Description Questionnaire (SBDQ).

The autocratic and punitive elements in initiating structure have been reduced markedly during translation, resulting in an instrument that does not have the negative connotations of the original SBDQ, but which does retain some of its better properties, such as the almost nonexistent correlation between consideration and initiating structure (in the Dutch version respectively called human-oriented and task-oriented leadership). As a contrast, the LBDQ and LBDQ-XII show substantial correlations between these two scales (Levanoni & Knoop, 1985; Schriesheim, House, & Kerr, 1976; Valenzi & Dessler, 1978). In the Dutch version of the SBDQ, human-oriented leadership is measured using 14 items, and task-oriented

JS	OC	WS	RC	P	SU	IS	ST	N × SU	N × IS	N × ST
.81										
.71**	.78									
–.23**	–.25**	.77								
–.30**	–.37**	.57**	.75							
.05	–.05	.30**	.32**	.77						
.49**	.41**	–.19**	–.21**	.04	–					
.19**	.26**	–.13**	–.19**	–.22**	.00	–				
.09*	.08*	.25**	.22**	.18**	.00	.00	–			
.01	–.00	–.08*	–.06	–.12**	–.05	.03	–.06	–		
.10*	.08*	.03	–.04	.06	.03	.01	–.06	–.02	–	
–.03	.04	.02	–.02	–.02	–.06	–.06	–.12**	.02	.08*	–
.46**	.34**	–.06	–.03	.23**	.28**	.05	.26**	–.03	.08*	.04

leadership using 10 items. Cronbach's alphas in this study are .92 (human-oriented leadership) and .84 (task-oriented leadership).

The scale measuring *charismatic leadership* is an 11-item version of the inspirational leadership scale of Den Hartog, Van Muijen and Koopman's (1997), which is a Dutch version of Bass' (1985) transformational leadership item pool. We renamed the scale "charismatic leadership," because the items strongly resemble those derived from the first factor in Bass' (1985, pp. 207–210) original factor analyses of the transformational leadership scales, which was originally named "charismatic leadership." In our study, this scale has a Cronbach's alpha of .93.

The *leader expertise* scale is a five-item version of the three-item scale with the same name by Podsakoff, Todor, and Schuler (1983), which, in their study, had an internal consistency

reliability of .80. The Cronbach's alpha of the five leader expertise items is .87 in our study. An example of an item measuring leader expertise is: "Because of my supervisor's competence, I usually go along with his/her advice on how I should do my job."

Leader's encouragement of self-management is a shortened version of the 22-items instrument of Manz and Sims (1987), which, in their study, contained six scales. Because the factor analysis conducted by Manz and Sims showed one strong first factor, which explained 48.7% of the variance in the 22 items (seven times the variance explained in the second factor), we decided to include from each of the original scales one semantically most representative item in our study. The Cronbach's alpha of the six-item scale in this study is .79. The items describe encouraging behaviors of a supervisor towards a subordinate in order to make the subordinate go over activities before attempting them, define own goals, be self-critical, reinforce own behavior, expect high performance, and evaluate own performance.

Correlations between the scales (Table 1) reveal strong relations between some of the leadership scales. For instance, charismatic leadership correlates .81 with leader expertise, .75 with leader's encouragement of self-management, and .73 with human-oriented leadership (all p 's < .001). To ensure independence of the predictors in the regression analysis, we conducted a Principal Component Analysis (PCA) on the leadership behavior items. Based on the scree plot and interpretability of the factors, three factors with eigenvalues > 2 were retained for further analysis.¹ The factors explained 51% of the variance in the 46 leadership items. The first 17 high loading (>.50) items on the first factor contained all 14 human-oriented leadership items, 2 charismatic leadership items, and 1 leader's encouragement of self-management item. We decided to rename this factor "leader's support."

Of the second factor, the 10 highest loading items (>.50) contained five leader expertise items and five charismatic leadership items. We renamed this factor "leader's inspirational skills" to reflect this mixture of expertise and charisma. All of the task-oriented leadership items had high loadings (>.50) on the third factor, together with three leader's encouragement of self-management items. We renamed this factor "leader's structure." The factor scores were retained for further analysis. As may be seen in Table 1, the leadership factors correlate strongly with the respective leadership scales through which they obtained their names. Leader's support correlates .95 with human-oriented leadership, leader's inspirational skills correlates .87 with leader expertise and .64 with charismatic leadership, and leader's structure correlates .90 (all p 's < .001) with task-oriented leadership. Note that the original charismatic leadership scale correlates strongly with both leader's support and leader's inspirational skills, and that the leader's encouragement of self-management scale correlates strongly with leader's support and leader's structure.

¹ Information about the factor analyses on the (Dutch) leadership items and "common method variance" items (see below) can be obtained from the first author.

2.4. Criteria

The dependent variables used in this study are: job satisfaction, organizational commitment, work stress, role conflict, and performance. The scales for measuring job satisfaction, organizational commitment, and work stress are adapted from Taillieu (1987). The *job satisfaction* scale contains 11 items, which denote the degree of satisfaction derived from the amount of variation, responsibility, autonomy, etc. in the job. In the present study, it has a Cronbach's alpha of .81. The scale for *organizational commitment* consists of six items in this study, such as: "I would change company, if another were to offer me a higher salary (reversed scored)" and "I praise my organization when talking to acquaintances." Cronbach's alpha is .78. The scale measuring *work stress* consists of seven items. Examples include: "I have to hurry to finish my work in time" and "I often cannot cope with the amount of work." Cronbach's alpha is .77.

Role conflict is viewed in terms of incompatibility of demands in the form of conflict between organizational demands and own values, problems of personal resource allocation, conflict between obligations to several other people, and conflict between excessively numerous or difficult tasks. It was measured using the instrument of Rizzo, House, and Lirtzman (1970) and consists of eight items. Alpha coefficients reported range from .56 to .82 (Cook, Hepworth, Wall, & Warr, 1981). In our study, it has a Cronbach's alpha of .75.

A self-report measure of *performance* was used containing eight items. We used a self-report measure, because the nature of the "crossorganizational" research prevented us from obtaining objective and comparable performance data. The scale is a composite of a task- and role-performance measure of Roe, Zinovieva, Dienes, and Ten Horn (2000). It is an indirect performance measure that captures a person's appraisal of the comparison of his/her performance with the performance of others with similar tasks and roles.

The task-performance component measures the perception of an employee of his own performance according to the supervisor and compared to others in the team. An example of a task-performance item is: "People know me as someone who performs better than my colleagues." Role-performance measures the function of an employee compared to other team members in terms of the amount of workload taken and the number of times colleagues ask for advice. An example of a role-performance item is: "When facing difficulties, my colleagues often ask me for advice." In Roe et al.'s (2000) research, the composite measure of performance was found to have adequate reliability (alpha's between .72 and .80), and it was positively related to job involvement and effort. In our research, the composite measure has a Cronbach's alpha of .77.

2.5. Analysis

The use of a large cross-sectional sample of the workforce makes it almost impossible to obtain independent and objective sets of predictor and outcome data. The downside of the strategy used in this research is that same-source data may result in inflated relationships between the constructs used. For instance, Doty and Glick's (1998) investigation of common methods bias shows that most observed relationships in monomethod research are approx-

imately 26% more positive than the true relationships. To correct for same-source bias, we used a procedure suggested by De Vries et al. (1998). The procedure relies on the availability of other same-source data in the study.

The present study contains a number of variables that are not reported in this article, such as control (Zijlstra, Den Hoedt, & De Vries, 2000) and several individual, team, and organizational characteristics, such as authoritarianism, self-efficacy, cohesion, and organizational inflexibility (see footnote 1). The items are first screened for correlation with “objective” variables, such as age, gender, gender of the supervisor, and number of years of supervision. Items that are significantly related to these objective variables were excluded from further analysis to prevent the common method factor from extracting systematic variance that might be attributable to objective factors. The remaining 22 items (not more than two per construct) were subjected to an unrotated PCA. In line with Hartman’s one-factor procedure (Podsakoff & Organ, 1986), the first factor is assumed to represent the common methods factor. In the PCA, it explained 10% of the variance. The factor scores were saved and retained for further analysis.

Consecutively, moderating effects were analysed using a modified version of the Hierarchical or Moderated Multiple Regression (MMR) procedure, suggested by Howell, Dorfman, and Kerr (1986). In the first step, the common method factor is entered in the regression equation. In the second step, the leadership factors and need for leadership are entered. In the third step, all three interactions between the leadership factors and need for leadership are entered. Jaccard, Turrisi, and Wan (1990) have warned against using more than one product term in a regression equation, because larger samples would be needed to provide the same power. Since the regression results were obtained using at least 660 respondents, we felt it appropriate to use all interactions at once.

MMR is generally biased against finding moderating effects in field studies (Fisicaro & Tisak, 1994). The probability of finding interactions in field studies is especially low because of the following: (1) In contrast with experimental studies, field studies most often deal with “fan-shaped” or “nonsymmetrical” interactions (i.e., interactions that differ in steepness but not in the direction of the regression lines) that have smaller moderating effects than “crossover” or “symmetrical” interactions (i.e., interactions that are positive at one level and negative at the other level of the moderating variable). Fan-shaped interactions are characterized by smaller moderating effects and consequently are harder to find (McClelland & Judd, 1993). (2) Because experimental studies oversample extreme observations, standard errors of the estimate of the coefficient for the interaction are much lower than in field studies. With higher standard errors in field studies, the chances of committing a Type II error of rejecting hypotheses are much greater (McClelland & Judd, 1993). (3) Furthermore, power problems in field studies are aggravated due to multiplication of unreliability in the interaction terms (Arnold, 1982).

The above considerations have led some to recommend the use of a less conservative alpha level of .10 or even .20 (Pedhauzer, 1982). Although with a larger number of interactions, it becomes more important to control for experiment-wise errors, in studies using new instruments, it may be important to prevent throwing away the baby with the bathwater. As a result, we decided to report the findings using both the common $\alpha = .05$ and the less conservative .10 level.

3. Results

As shown in the correlation matrix (Table 1), the common method factor is positively related to two of the three leadership factors, and to the criteria job satisfaction, organizational commitment, and self-rated performance. It has a slight positive relation with need for leadership and a negligible relation with leader's inspirational skills, work stress, role conflict, and the three interaction terms. The leadership factors are positively related to job satisfaction and organizational commitment. Leader's support and leader's inspirational skills are negatively related to work stress and role conflict, while leader's structure is positively related to these criteria. Leader's inspirational skills is negatively related to self-rated performance and leader's structure positively; leader's support is unrelated to self-rated performance. As for need for leadership: It is positively related to all of the leadership factors, and it has small positive correlations with work stress and role conflict.

Table 2

Stepwise moderated multiple regressions of criteria on leadership characteristics, need for leadership, and their interactions

	Criteria				
	Job satisfaction (<i>n</i> = 662)	Organizational commitment (<i>n</i> = 666)	Work stress (<i>n</i> = 662)	Role conflict (<i>n</i> = 662)	Self-rated performance (<i>n</i> = 660)
<i>Step 1: Common method factor</i>					
Common method factor	.47***	.35***	-.07 [†]	-.04	.23***
ΔR^2	.22***	.12***	.01 [†]	.00	.05***
R^2 (R^2_{adj})	.22 (.22)	.12 (.12)	.01 (.00)	.00 (.00)	.05 (.05)
<i>Step 2: Predictors</i>					
Leader's support	.38***	.33***	-.20***	-.20***	-.03
Leader's inspirational skills	.19***	.28***	-.16***	-.22***	-.24***
Leader's structure	.01	.03	.23***	.15***	.10*
Need for leadership	-.08**	-.04	.02	.05	-.09*
ΔR^2	.17***	.17***	.12***	.11***	.08***
R^2 (R^2_{adj})	.39 (.38)	.29 (.29)	.13 (.12)	.12 (.11)	.13 (.12)
<i>Step 3: Interactions</i>					
Leader's support × Need for leadership	.02	.02	-.08*	-.06	-.11**
Leader's inspirational skills × Need for leadership	.06 [†]	.04	.03	-.03	.08*
Leader's structure × Need for leadership	.00	.08*	.03	-.01	-.04
ΔR^2	.00	.01*	.01 [†]	.00	.02**
R^2 (R^2_{adj})	.39 (.38)	.30 (.29)	.14 (.13)	.12 (.11)	.15 (.14)

* $p < .05$.** $p < .01$.*** $p < .001$.[†] $p < .10$.

The results of the stepwise MMRs are shown in Table 2. Of the three leadership factors, leader's support and leader's inspirational skills contribute significantly in explaining job satisfaction. Need for leadership is negatively related to job satisfaction in the regression equation. The third step in the MMR reveals that the interactions do not explain any additional variance in the criteria. However, inspection of the beta's of the interactions shows one of the interactions to be significant at $p < .10$. There is a small moderating effect of need for leadership on the relation between leader's inspirational skills and job satisfaction. The interaction effect may be interpreted as follows: high need for leadership is associated with a slightly stronger relation between leader's inspirational skills and job satisfaction than low need for leadership.

Leader's support and leader's inspirational skills maintain a significant (positive) relation with organizational commitment in the regression equation after the common method variance is partialled out. There is a positive moderating effect of need for leadership on the leader's structure–organizational commitment relation. High need for leadership is associated with a positive relation between leader's structure and organizational commitment, while low need for leadership is associated with no relation or even a negative relation between leader's structure and organizational commitment.

One moderating effect (at $p < .05$) is found in the relation between leader's support and work stress and none in the case of role conflict. Need for leadership moderates the relation between leader's support and work stress in the predicted direction, i.e., higher need for leadership is associated with a stronger (negative) relation between leader's support and work stress. Two of the three potential moderating effects are found in the relations between leadership factors and self-rated performance. Need for leadership is a pure moderator of the relation between leader's support and self-rated performance.

High need for leadership is associated with a negative relation between leader's support and self-rated performance, while low need for leadership is associated with no or a positive relation between the two variables. Need for leadership weakens the relation between leader's inspirational skills and self-rated performance. High need for leadership is associated with a weak negative or almost no relation between leader's inspirational skills and self-rated performance, while low need for leadership is associated with a strong negative relation between leader's inspirational skills and self-rated performance.

4. Discussion

The number of significant interactions found in this study represents some improvement over the number found in the path–goal and substitutes for leadership research (Podsakoff, MacKenzie, Ahearne, & Bommer, 1995; Podsakoff, MacKenzie, & Bommer, 1996; Podsakoff, MacKenzie, et al., 1993; Podsakoff, Niehoff, MacKenzie, & Williams, 1993; Wofford & Liska, 1993) and the number of significant interactions in previous research resembling need for leadership (De Vries et al., 1998; Emans & Radstaak, 1990; Keller, 1989; Landeweerd & Boumans, 1994; Seers & Graen, 1984; Stoker & De Jong, 1996). In 5 out of the 15 possible

interactions (33%), a significant interaction effect was found. However, the moderating effects are generally weak. In the case of the relation between leader's inspirational skills and job satisfaction, leader's structure and organizational commitment, and leader's support and work stress, a high need for leadership is associated with a stronger relationship between leadership and the outcome variable, a low need for leadership with a weaker or nonexistent relationship, offering some support for our hypothesis.

When should the leader back off and allow the subordinates to carry on without him/her? As Podsakoff et al. (1995) pointed out, the leader does not have to back off when leader behavior is at no point harmful to the individual and organizational outcomes. Leader's support and leader's inspirational skills (a mixture of expertise and charisma) do not seem to be harmful to any of the outcomes in this study. One exception is the negative relation between leader's inspirational skills and self-rated performance. However, this negative relationship may actually point to a comparison effect. Employees that think highly of themselves, i.e., rate themselves high on performance, may have given relatively lower skill ratings to the leader, and vice versa. Need for leadership does not appear to (strongly) reverse the relations between leader's support/skills and the outcomes in this study, thus, a leader would normally be advised to be supportive and use their skills as much as possible.

Leader's structure should be more carefully used, since, when used too much or in an inappropriate manner, it may cause (too much) stress and role conflict. On the other hand, it may have a beneficial effect on subordinate's performance, while not hurting job satisfaction and organizational commitment. Need for leadership does not seem to make too much difference on the advice given to the leader, although from our study, it appears organizational commitment may be negatively affected if the leader uses too much structuring with subordinates who have a low need for leadership.

An area that deserves further research is the relation between need for leadership and leadership characteristics. In this study, need for leadership is positively related to all leadership characteristics, but the nature of this relation is not clear. Do leaders show more support and structure (or human-oriented and task-oriented leadership) when subordinates need them or do leaders invoke subordinates' leadership needs with this kind of leadership? Do leaders react to subordinates' need for leadership by encouraging the self-management of subordinates by exhibiting greater expertise and charisma (or leader's inspirational skills), or do subordinates with strong need for leadership perceive their leaders as being more charismatic, having greater expertise, and encouraging self-management to a greater extent? Especially the relation between need for leadership and the original charismatic leadership scale is interesting, since scholars have maintained that charismatic leaders may develop subordinates to greater levels of autonomy (Bass & Avolio, 1990) or even make subordinates leaders in their own right (Yammarino, 1994). If we consider seriously the positive correlation obtained between need for leadership and charismatic leadership, there is not yet much support for this contention.

Although we corrected for common method variance in the MMR, future studies should try to generate independent and more objective outcome measures. Furthermore, longitudinal data, ideally, should be collected to look at the effects of intraindividual changes in

need for leadership on the effectiveness of leadership. Since field studies are generally biased against finding statistical interactions, another way to uncover the effects of need for leadership would be through experimental studies. An example of an experimental study is provided by De Vries (2000), who found that the combined manipulation of need for leadership and performance information has strong effects on leadership ratings. Ratings of leadership effectiveness and goal-orientation were much higher when respondents believed. Subordinates had a high need for leadership and were performing well than when respondents believed need for leadership or performance, or both, were low.

Regarding common method variance, our research indicates that measures such as job satisfaction are strongly affected by it, but measures such as work stress, role conflict, and need for leadership are weakly or not related to the common method factor used in this study. The findings lend support to Crompton and Wagner's (1994) and Doty and Glick's (1998) assertion that some areas of research may be more susceptible to common method or percept–percept bias than others. That need for leadership in this research and need for supervision in previous research (De Vries et al., 1998) do not show a substantial relation with a common method factor is promising for future research.

Appendix A.

Instruction: Would you please indicate on which of the following aspects you *personally* need the contribution of your supervisor/boss/manager/leader?

I need my supervisor to . . .

1. . . .set goals.
2. . . .decide what work should be done.
3. . . .transfer knowledge.
4. . . .motivate me.
5. . . .coordinate, plan and organize my work.
6. . . .maintain external contacts.
7. . . .provide me with information.
8. . . .gear all activities of the team to one another.
9. . . .create a good team spirit.
10. . . .provide me with support.
11. . . .arrange things with higher-level management.
12. . . .handle conflicts.
13. . . .give work-related feedback.
14. . . .correct mistakes.
15. . . .help solve problems.
16. . . .recognize and reward contributions.
17. . . .inspire me.

Answering categories: 1 = *not at all*; 2 = *not much*; 3 = *partly*; 4 = *mainly*; 5 = *a lot*.

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