



# Leader empathy, ethical leadership, and relations-oriented behaviors as antecedents of leader-member exchange quality

Antecedents of  
LMX

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## Abstract

**Purpose** – Leader empathy, ethical values, and relations-oriented behavior all appear to be relevant for effective leadership, but nobody has examined how all three variables are jointly related to leader-member exchange quality (LMX). The purpose of this study is to examine these relationships and test a proposed model describing them.

**Design/methodology/approach** – Data were collected with a questionnaire from subordinates of leaders in several organizations, and SEM path analysis was used to test alternative models.

**Findings** – The results indicated that a leader's relations-oriented behavior fully mediated the relationship between leader empathy on LMX and partially mediated the relationship between ethical leadership and LMX. Recommendations for future research to verify and extend the results were provided.

**Originality/value** – This is the first empirical study to simultaneously examine the complex relationships among these four different aspects of leadership (i.e. a skill, values, behaviors, and exchange relationship). The authors' measure of ethical leadership minimizes confounding with other constructs, which is a problem in earlier studies. The practical implication is that leader empathy and ethical leadership should be included in leadership selection and development programs.

**Keywords** Ethics, Leadership, Behavior

**Paper type** Research paper

## Introduction

Leader-member exchange (LMX) theory suggests that a leader will develop an exchange relationship over time with each subordinate (Dienesch and Liden, 1986; Graen and Cashman, 1975; Graen and Scandura, 1987; Graen and Uhl-Bien, 1995). Social exchange theory and role theory provide the basis for explaining how the exchange relationship develops gradually over time as a leader interacts with each subordinate and the role of the subordinate is negotiated. The quality of the relationship may vary from one subordinate to another. In a high exchange relationship there is a high level of trust, liking, and respect. The leader provides outcomes desired by the subordinate (e.g. interesting tasks, additional responsibilities, more rewards), and in exchange the subordinate is expected to be committed to the



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work and loyal to the leader. In low-quality exchange relationships, subordinates are only expected to perform the formal requirements of their jobs, and extra benefits are not provided by the leader.

The quality of a leader's exchange relationships with subordinates has important implications for leadership effectiveness. A leader who is able to develop high quality relationships with most or all subordinates is likely to be more effective than a leader who is unable to develop high quality relationships (Graen and Uhl-Bien, 1995). Empirical studies have found a positive correlation between LMX quality and several indicators of leadership effectiveness (e.g. Graen and Uhl-Bien, 1995; Harris *et al.*, 2009; Schriesheim *et al.*, 1999). In a meta-analytic study Gerstner and Day (1997) found that a favorable exchange relationship was related to higher subordinate satisfaction, greater organizational commitment, better job performance, and lower turnover. Erdogan and Liden (2002) reported additional positive outcomes of a favorable exchange relationship, such as more creativity, less job stress, and better workplace safety.

More research has been conducted on the outcomes of LMX than on its determinants, but several antecedents have been identified (Liden *et al.*, 1997; Nahrgang *et al.*, 2009; Schriesheim *et al.*, 1999). A favorable exchange relationship is more likely when the subordinate is perceived to be competent and dependable, and the subordinate's values, attitudes, and demographic attributes are similar to those of the leader. Some personality traits for the leader and subordinate (e.g. agreeableness, extroversion, positive affectivity) may also be related to LMX. However, the number of studies on traits is too small to reach any firm conclusions, and the studies did not include mediating variables such as leader behavior to explain the relationship.

The development of LMX may also be affected by contextual variables (Liden *et al.*, 1997). It may be more difficult for the leader to develop favorable exchange relationships when the work unit or team has many members, when the members are only temporarily assigned to the team, when the members are widely dispersed and seldom interact with the leader, when the leader is overloaded with responsibilities and has little time for interaction with individual members, or when the leader has little power to provide rewards and benefits desired by members. The extent to which leaders develop different LMX relationships with their subordinates is probably affected by other aspects of the situation as well, such as the organizational culture, human resource practices, and the type of team or work unit (Henderson *et al.*, 2009).

Another antecedent of LMX is leader behavior, but the theory does not clearly explain how this behavior is related to the quality of the exchange relationship with a subordinate. Causality in both directions is possible, because leader behavior can influence how the exchange relationship develops, but leader perception of a subordinate's competence and loyalty influences the choice of behavior (Graen and Scandura, 1987; Keller and Dansereau, 1995). A recent study found that LMX is correlated more with relations-oriented behaviors than with other types of leadership behaviors (Yukl *et al.*, 2009). The relations-oriented behaviors included providing psychological support, recognizing subordinate contributions, developing subordinate skills, consulting with subordinates to learn about their ideas and concerns, and delegating more authority and responsibility to subordinates.

Two other leader characteristics that appear relevant for the development of a favorable exchange relationship involve leader skills and values rather than leader behaviors. Empathy is the ability to recognize and understand the emotions and

feelings of others, and this interpersonal skill can make it easier to develop a cooperative relationship of mutual trust with a subordinate. Ethical leader values include concern for the welfare of subordinates and willingness to protect, help, develop, and empower them. A leader with these values will have more desire to develop and maintain a cooperative relationship with subordinates.

Empathy, ethical values, and relations-oriented behavior are distinct constructs that may jointly influence the development of exchange relationships. No prior study included more than one of these three types of antecedents, and it is not evident whether they have independent or joint effects. An implicit assumption in much of the theory and research on effective leadership is that behaviors mediate the effects of leader traits and skills on outcomes such as subordinate satisfaction, motivation, and performance (Yukl, 2010). Based on the limited theory and research involving leader empathy and ethical values, it is plausible that the effects of empathy and ethical values on LMX are mediated by the leader's relations-oriented behaviors. The purpose of our study was to examine these relationships and test alternative models about them. The full mediation model shown in Figure 1 is compared to a direct effects model with no mediation, and the possibility that a partial mediation model provides a better fit to the data is also considered.

### Literature review and hypotheses

The number of directly relevant studies on leader empathy, ethical values, and relations-oriented behavior as antecedents of LMX is still very limited. Much of this research has emphasized broadly-defined constructs such as transformational leadership and emotional intelligence, which include other components in addition to the predictor variables emphasized in our study. The results in such studies are difficult to interpret, but they can provide clues about the likely relevance of our predictor variables. The following sections will review literature that provides the rationale for our proposed hypotheses about relations-oriented behavior, empathy, and ethical values as antecedents of LMX.

#### *Relations-oriented behavior and LMX*

As mentioned earlier, LMX theory does not provide a clear explanation of the causal relationships between LMX and specific types of leadership behavior. Some research on behavioral correlates of LMX has been conducted, but different behaviors and measures of them were used from one study to another, making it difficult to compare results and draw conclusions. The early behavior research found that relations-oriented behaviors can be differentiated from task-oriented behaviors (e.g. Fleishman, 1953; Halpin and Winer, 1957), and later research found evidence for change-oriented leadership as a third behavior meta-category (Ekvall and Arvonen, 1991; Yukl *et al.*, 2002). Labels such as "consideration" and "supportive leadership" were used to describe the relations-oriented behaviors in much of the early research. Many leadership studies have found a correlation between this type of behavior and subordinates satisfaction with the leader, which is highly correlated with LMX



**Figure 1.**  
Full mediation model

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(Gerstner and Day, 1997). However, few studies directly examined the relationship between relations-oriented behaviors and LMX.

Most studies on behavioral antecedents of LMX used measures of transformational leadership (Bass, 1985), which includes some relations-oriented behaviors and some change-oriented behaviors (Yukl, 1999). Transformational leadership was usually measured with a version of the Multifactor Leadership Questionnaire (Bass and Avolio, 1990) that has scales for four component behaviors: individualized consideration (providing support, encouragement, and coaching), idealized influence (symbolic behavior and leading by example), inspirational motivation (articulating an ideological vision and building commitment for the task), and intellectual stimulation (encouraging innovative thinking). Individualized consideration is the only component behavior that is clearly relations-oriented. Since the component behaviors are highly intercorrelated, most researchers use only the composite score for transformational leadership when studying how it relates to other variables. Several studies found that transformational leadership is correlated with LMX (e.g. Basu and Green, 1997; Bettencourt, 2004; Howell and Hall-Merenda, 1999; Lee, 2008; Tse and Lam, 2008), but only one study (Deluga, 1992) examined how the component behaviors of transformational leadership are independently related to LMX. The only significant predictors of LMX were individualized consideration and idealized influence.

A recent study by Yukl *et al.* (2009) included a broader range of leader behaviors to determine which ones are most strongly related to LMX. Relations-oriented, task-oriented, and change-oriented leader behaviors were rated by subordinates who also provided the measure of LMX. Most of the variance in LMX was explained by five relations-oriented behaviors. Two of these behaviors (supporting and developing) are similar to individualized consideration, but the other three relations-oriented behaviors (recognizing, consulting, and delegating) are not usually regarded as transformational. The change-oriented behaviors similar to inspirational motivation and intellectual stimulation were not significant predictors of LMX in the regression analysis. The only change-oriented transformational behavior that was significant was idealized influence.

Several other studies also found that leader consultation and delegation are related to LMX, although leader behavior was usually regarded as the dependent variable in those studies (Keller and Dansereau, 1995; Leana, 1986; Schriesheim *et al.*, 1998; Scandura *et al.*, 1986; Yukl and Fu, 1999). Theoretical explanations about the likely effects of leader behavior and the findings in prior research are consistent with the following hypothesis.

*H1.* Relations-oriented leader behavior is positively related to the quality of LMX.

#### *Empathy, relations behavior, and LMX*

The interpersonal skills of leaders can influence their choice of relevant behaviors and their effective use of these behaviors with subordinates. Leaders with high empathy are more able to recognize when different relations behaviors are relevant. For example, a leader should be more supportive, encouraging, and helpful when a subordinate is anxious about a difficult task or overstressed by the pressures of the job. Understanding a subordinate's attitudes about the work is relevant for determining how much empowerment is appropriate for each subordinate (Yukl, 2010). Empathy

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also make it easier for the leader to understand how satisfied a subordinate is with the exchange relationship and to detect any underlying feelings of injustice and resentment about assignments, rewards, and support from the leader.

One study found a relationship between leader self-rated empathy and subordinate ratings of LMX (Gordon, 2007). A study with students in an assessment center exercise found a significant correlation between empathy and relations-oriented behaviors (Kellett *et al.*, 2006). Empathy is a key component of emotional intelligence (Goleman, 1995; Law *et al.*, 2004; Mayer *et al.*, 1999), and some researchers have examined how this broader construct is related to transformational leadership. Barling *et al.* (2000) found that emotional intelligence was related to three aspects of transformational leadership rated by subordinates, including individualized consideration. Two studies (Butler and Chinowsky, 2006; Rubin *et al.*, 2005) found that leader empathy was the component of emotional intelligence with the strongest relationship to transformational leadership. Gardner and Stough (2002) found a significant relationship between emotional intelligence and transformational leadership for senior managers, and the strongest correlation was between recognition of emotions and individualized consideration. Since relations-oriented behaviors account for most of the effects of leader behavior on LMX, it is likely that these behaviors also mediate the relationship of empathy to LMX. The theory and prior research suggest the following hypotheses.

*H2a.* Leader empathy is positively related to the use of relations-oriented behaviors.

*H2b.* Leader relations-oriented behaviors mediate the effects of leader empathy on LMX.

#### *Ethical values, relations behavior, and LMX*

Recent scandals involving corporate and public sector leaders have increased interest in studying ethical leadership (e.g. Brown and Treviño, 2006). Values that determine ethical leadership include altruism, honesty, empowerment, fairness, and justice, and these values are a core aspect of several theories that have been prominent in the leadership literature in recent years, including servant leadership (e.g. Russell and Stone, 2002; Smith *et al.*, 2004), spiritual leadership (Fry, 2003), and authentic leadership (Gardner *et al.*, 2005).

Ethical values are likely to encourage leaders to use more relations-oriented behaviors with subordinates when they are appropriate for the situation. A leader who values altruism is more likely to be supportive and helpful to subordinates. A leader who values empowerment is more likely to use delegation. A leader who values personal growth and fairness is more likely to develop subordinates and provide equal opportunities for career advancement. A leader who values humility and fairness is more likely to provide recognition to subordinates who make important contributions to the mission rather than claiming credit for them. Leaders with strong ethical values will not deceive or exploit subordinates, and they will not be abusive or unkind in their behavior towards subordinates.

The implications of ethical values for leader behavior are an important research question that has not been adequately addressed. We found only three studies on the relationship between ethical leadership and aspects of relations-oriented behavior. In a

study of managers in New Zealand, Parry and Proctor-Thompson (2002) found that scores on the Perceived Leader Integrity Scale (PLIS) correlated significantly with individualized consideration rated by bosses. In a study of employed students in the USA, Brown *et al.* (2005) found that scores on the Ethical Leadership Questionnaire (ELQ) were significantly correlated with the students' ratings of leader consideration. In a study of Dutch managers rated by subordinates, De Hoogh and Den Hartog (2008) found that leader social responsibility, morality, and fairness were significantly correlated with power sharing behavior (which involves consultation and delegation). The theory and research findings on ethical leadership suggest the following hypotheses:

*H3a.* Leaders with strong ethical values use more relations-oriented behaviors.

*H3b.* Leader relations-oriented behaviors mediate the effects of ethical leadership on LMX.

#### *Empathy and ethical leadership*

The relationship between empathy and ethical values has not been examined closely, but the two leader attributes are likely to be moderately correlated. A leader with strong ethical values will be more motivated to support, develop, and assist subordinates, but to do this effectively the leader needs to understand their needs and feelings. The leader must take the time to listen carefully to subordinates and ask questions that provide insight about career aspirations and job attitudes. A leader who is unable or unwilling to understand and appreciate the feelings and attitudes of subordinates is unlikely to devote much time to such discussions. Thus, leaders with strong ethical values are likely to engage more in activities that facilitate understanding and also reveal their empathy. Of course, the ability to recognize and understand the emotions and needs of other people can be used in unethical ways. However, the combination of high empathy with unethical leadership may not be prevalent in business organizations, since this type of person is likely to derail or be imprisoned for illegal actions (Val Velsor and Leslie, 1995).

### **Method**

#### *Sample*

The sample included 218 business students at a university in the northwestern USA. The students had regular jobs during the day, and they rated their immediate boss. The average age of the respondents was 38 years, and they had been working for the organization an average of two to three years. The composition of the respondent sample was 43 percent males, and 36 percent of the bosses rated by respondents were males. Sixty percent of the respondents held professional/technical jobs, 24 percent held lower-level managerial jobs (team leader, supervisor, and section head), 12 percent had middle-management positions, and only 4 percent were upper-level executives. Thus, 60 percent of the leaders rated by respondents were first-level managers, and forty percent were middle-level managers or executives. The respondents represented diverse organizations. Of the sample, 61 percent worked for medium to large corporations, 21 percent worked for small companies, and 3 percent worked for government agencies or non-profit organizations. The companies were from a large variety of industries (e.g. airlines, trucking, software, telecommunications, internet companies, banking, retail stores).

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### Measures

Leader empathy was measured with four items from a sub-scale of the questionnaire on emotional intelligence developed by Wong and Law (2002). The questionnaire was initially developed for leaders to rate their own emotional intelligence, and we adapted the wording so that subordinates could rate the empathy of their leader. Each item had six Likert-type response choices (1-strongly disagree to 6-strongly agree). Only the four items with positive wordings were used. Sample items include:

- my manager is very aware of how other people are feeling; and
- my manager is a good observer of emotions in other people.

Ethical leadership was measured with six items adapted from other scales on ethical leadership, including the ELQ (Brown *et al.*, 2005), the PLIS (Craig and Gustafson, 1998), and the morality and fairness scale developed by De Hoogh and Den Hartog (2008). We only included items that involve ethical values or integrity, and we did not include items that appear to be confounded with behaviors in the MPS (e.g. leading by example) or with items in the LMX-7 (e.g. trust the leader to defend your interests). A six-point Likert-style format was used with the same response choices as in the empathy scale. Sample items include:

- my boss has high ethical standards;
- my boss shows a strong concern for ethical and moral values; and
- my boss opposes the use of unethical practices to improve profits.

Leader relations-oriented behaviors were measured with 15 items from relevant subscales in the Managerial Practices Survey (MPS) developed by Yukl and colleagues (Kim and Yukl, 1995; Yukl *et al.*, 2002). The primary components of relations-oriented behavior include supporting, recognizing, developing, consulting, and delegating (empowering). All items have the same five-point response format with an anchor for each choice indicating how much the behavior described by the item is used by the focal manager (1 = Not at all, 5 = To a very great extent), as well as a “Don’t know or not applicable” option. Sample items for each component behavior are as follows:

- Shows concern for the needs and feelings of individual members (Supporting).
- Praises effective performance by members (Recognizing).
- Provides advice and coaching to help members develop their skills (Developing).
- Asks for ideas and suggestions when making decisions about the work (Consulting).
- Trusts members to make decisions without getting prior approval (Delegating).

LMX was measured with the LMX-7 instrument developed by Scandura and Graen (1984). Graen and Uhl-Bien (1995, p. 236) provided additional support for the validity of this questionnaire. Each item had five anchored response choices with unique anchors that are appropriate for the item. The wording for the response choices in a few items was slightly changed to reduce ambiguity. Sample items include:

- how well does your boss understand and appreciate your talents and potential;
- how much confidence does your boss have in your ability to do the work;

- how willing are you to do extra work to help your boss deal with a difficult problem; and
- how would you describe the relationship between you and your boss?

**Results**

*Descriptive statistics and preliminary analyses*

Prior to testing hypotheses, we conducted a confirmatory factor analysis to assess the discriminant validity of our measures, which is important when the data are all provided by the same source. The results of the CFA confirmed that the four constructs are distinct and can be differentiated by respondents (e.g. CFI = 0.94, NFI = 0.90, IFI = 0.94, GFI = 0.84, RMSEA = 0.07). A single-factor model was evaluated with Harmon’s single-factor procedure (CFI = 0.63, NFI = 0.60, IFI = 0.63, GFI = 0.47, RMSEA = 0.17). The Sequential Chi-square Difference Test (James *et al.*, 1982) indicated that the four-factor model had a significantly better fit to the data than the one-factor model (SCDT  $\Delta \chi^2 (7) = 1,199, p < 0.01$ ). Finally, the internal consistency (alpha value) was high for all for measures. Table I presents means, standard deviations, correlations, and alpha values for all variables included in the study. Empathy, ethical leadership, and relations-oriented behavior were all correlated significantly with each other and with LMX. The correlations are consistent with *H1*, *H2a*, and *H3a*.

*Multiple regression analysis*

A hierarchical multiple regression analysis was performed to evaluate the independent relationship of leader empathy, relations-oriented behavior, and ethical leadership with LMX. The multiple regression analyses provides one way to compare the fully-mediated and direct-effects models, and it can indicate whether a partial mediation model may provide a better fit to the data.

The results are shown in Table II. In the first step LMX was regressed onto leader empathy and ethical leadership, and despite the correlation between empathy and ethical leadership, the two predictors were both significant. Relations-oriented behavior was added in the second step of the regression, and it was a significant predictor of LMX (consistent with *H1*). Leader empathy was no longer a significant predictor of LMX, which is consistent with *H2b*. Ethical leadership remained a significant predictor of LMX, which is not consistent with *H3b*. The pattern of results suggests that relations-oriented behavior fully mediated the effects of empathy but only partially mediated the effects of ethical leadership.

Variable	Mean	SD	1	2	3	4
1. Leader empathy	3.85	1.24	(0.92)			
2. Ethical leadership	3.45	0.95	0.50*	(0.95)		
3. Relations behavior	4.66	1.23	0.72*	0.59*	(0.99)	
4. LMX	3.77	0.79	0.50*	0.64*	0.75*	(0.89)

**Notes:** \* $p < 0.01$ ; alphas for each scale are shown in parentheses; sample size is 218

**Table I.**  
Descriptive statistics and correlations



*Structural equation test of models*

We used structural equation modeling to compare alternative models of causal relationships (Jaccard, 2001; Kline, 2005). AMOS was selected as the statistical software program, because it is based on visual structural equation modeling (SEM) that specifies, estimates, assesses, and presents diagrams showing hypothesized relationships among variables (Arbuckle, 1996). Figure 2 shows the three competing models that were compared and the path coefficients found for each proposed causal effect. All three models assume a moderate correlation between empathy and ethical leadership.

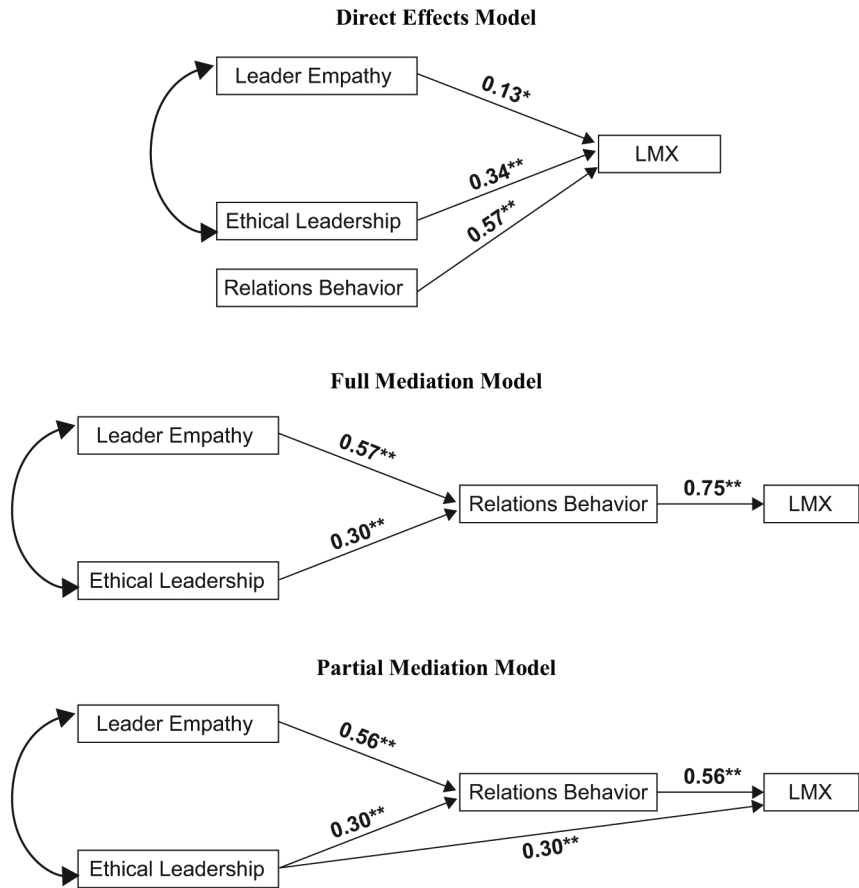
As recommended by Kline (2005) we used several fit statistics for each model. The Goodness of Fit Index (GFI) assesses relative model fit compared to a null model with regard to the proportion of variance explained respectively (Jöreskog and Sörbom, 1993). The Comparative Fit Index (CFI) avoids underestimation of fit associated with small samples (Bentler, 1989; Hu and Bentler, 1999). The Normed Fit Index (NFI) estimates true model fit and has less sampling variability than indices derived from ratios of chi-squares to degrees of freedom (Bentler and Bonett, 1980; Bollen, 1989). The Root Mean Square Error of Approximation (RMSEA) takes into account the error of approximation in the population, and values greater than 0.10 indicate a poor fit (Browne and Cudeck, 1993). The Standardized Root Mean Square Residual (SRMR) is a measure of the mean absolute correlation residual, which is the overall difference between the observed and predicted correlation, and values less than 0.10 generally indicate a good fit (Hu and Bentler, 1999). The individual model paths for each model were also evaluated for significance, and the Sequential Chi-square Difference Test (SCDT) was also used to compare models (James *et al.*, 1982).

Results from the SEM analysis for the three models are shown in Table III. The Chi square value was not significant for the partial mediation model (which is desirable), the GFI, CFI, and NFI exceeded the minimum 0.90 threshold for a good fit (Bollen, 1989), RMSEA and SRMR did not exceed the 0.10 level that would have indicated a poor fit, and all path coefficients were significant and in the predicted direction. In the Sequential Chi-square Test for nested models, the partial mediation model with a path from ethical leadership to LMX fit the data significantly better than the full mediation model ( $\Delta \chi^2(1) = 32.4, p < 0.01$ ) or the direct effects model ( $\Delta \chi^2(1) = 190.1, p < 0.01$ ). The results provide support for all but one of the five hypotheses, and the pattern of results indicates that leader relations behaviors fully mediated the effects of leader empathy on LMX and partially mediated the effects of ethical leadership.

Variable	Step 1		Step 2	
	$\beta$	t	$\beta$	t
Leader empathy	0.39	7.28*	0.11	1.84
Ethical leadership	0.44	8.23*	0.29	5.66*
Relations behavior			0.49	7.60*
F	120.2*		120.5*	
R <sup>2</sup>	0.52		0.62	

**Note:** \* $p < 0.01$ ;  $\beta$  is standardized beta; sample size is 218

**Table II.**  
Results of hierarchical  
multiple regression  
analysis for LMX



**Figure 2.**  
Direct effects model

**Note:** Values are standardized coefficients; \*\*  $p < 0.01$

Model	$\chi^2$	df	GFI	CFI	NFI	RMSEA	SRMR
Direct effects	193.5*	2	0.72	0.58	0.58	0.66	0.32
Full mediation	36.2*	2	0.92	0.92	0.92	0.28	0.06
Partial mediation	3.4	1	0.99	0.99	0.99	0.10	0.01

**Table III.**  
Fit indices for three  
causal models

**Notes:** \*  $p < 0.01$ ;  $n = 218$

### Discussion

Several prior studies provided evidence that leader empathy, ethical leadership values, and relations-oriented behaviors are antecedents of LMX, but they did not examine joint effects for more than one of these antecedents. Our study was conducted to examine multiple mediators simultaneously, and our proposed mediation model was based on the common assumption that the effects of leader values and skills are

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mediated by leader behaviors. The results from two different types of analysis (hierarchical regression and SEM path analysis) were consistent with a causal model in which relations-oriented behavior fully mediates the effects of leader empathy on LMX and partially mediates the effect of ethical leadership.

The direct effect of ethical values on LMX was not included in the full mediation model we initially proposed, and it may be explained by mediators that are not components of relations-oriented behavior. For example, a leader with strong ethical values is likely to set an example of ethical behavior for subordinates, set firm standards of ethical conduct, and hold subordinates accountable for unethical behavior. Other types of leader behavior that may mediate the effects of ethical values on LMX include dispensing rewards and benefits fairly, mediating conflicts impartially, and taking personal risks to defend subordinates who are in danger of being exploited or mistreated by others. Future research on mediators of ethical leadership should include these other likely mediators in addition to the relations-oriented behaviors in our study.

### *Limitations*

The primary limitation of our study was reliance on same-source data. The pattern of results supports our interpretation of the causal relationships, but causality cannot be determined from a survey study in which all data is obtained from the same respondents at the same time. Podsakoff *et al.* (2003) suggested several ways to limit method variance from same source data, and they include protecting the anonymity of the respondents and using different response formats for the predictor and criterion measures. We followed these recommendations in the design of our survey, and our confirmatory factor analysis suggested that our measures were not seriously confounded. Moreover, some scholars have concluded that the problems caused by common method variance are overstated and seldom serious enough to invalidate research findings based on the type of methods we used (Doty and Glick, 1998; Spector (2006). Nevertheless, a strong test of causality requires a research design with experimental manipulation of independent variables, and an adequate test of mediating effects requires a longitudinal study with repeated measures (Rosopa and Stone-Romero, 2008). Field experiments on leadership traits and behavior are seldom possible, but it would be feasible to conduct a longitudinal field study with independent measures of the predictors, mediators, and outcome variables.

Another limitation of our study was to measure each leader's empathy only from the perspective of a single subordinate. The ratings of leader empathy may be biased by a subordinate's general evaluation of the leader, but the alternative of using leader self ratings of empathy is also subject to biases. Having multiple subordinates rate each leader's empathy is one approach for improving future research. An even better approach would be to include a skill measure of leader empathy, such as leader recognition of emotions in people shown interacting on a video.

Using a single subordinate's ratings of a leader's ethical values is another limitation. These ratings are also subject to respondent biases, in part because it is necessary for the subordinate to make inferences about values based on a leader's statements and actions. In future research it would be useful to ask leaders to directly report on their own values, then check for agreement with the ratings of leader values made by subordinates, peers, and bosses. The study could be included in a multisource feedback intervention on values and behavior.

*Implications*

The results from our study help to integrate findings in the earlier studies on antecedents of LMX. Our results also point out the limitations of relying on constructs such as transformational leadership and emotional intelligence for this type of research. Analyses based solely on a composite score for a construct with very diverse components can mask important relationships and make interpretation of results difficult. Less reliance on vague constructs in the future will improve both theory development and empirical research on effective leadership.

The results in our study and the difficulty of finding strong theoretical support for the hypotheses suggest the need to extend LMX theory to include antecedents and explain their effects. The theory needs to explain more clearly how different leader behaviors influence the development of an exchange relationship, how values and interpersonal skills affect the leader's behavior, and how some leader behaviors are influenced by leader perception and attributions regarding the competence, dependability, and loyalty of subordinates.

The practical implications of our study are not limited to improving the quality of the exchange relationship with subordinates. As noted in our introduction, there is ample evidence that LMX is related to leadership effectiveness. Many studies have found a positive correlation between relations-oriented behaviors and indicators of effective leadership (Yukl, 2010). For example, Kim and Yukl (1995) found that relations-oriented behaviors correlated significantly with boss and peer ratings of effective leadership for middle managers. There is growing evidence that leader empathy and ethical values are also related to criteria of leadership effectiveness. For example, a recent study of top executives (Stein *et al.*, 2009) found that empathy was related to company profits.

Our study also has relevance for corporate social responsibility. Scandals involving top executives in failed companies such as Enron (e.g. Sims and Brinkmann, 2003) demonstrate the destructive effects of unethical leadership. In a recent Gallup study (Giovannoni, 2009) people were asked which qualities they most wanted from their leaders. The qualities researchers expected to find, such as vision, drive, and wisdom were less important than qualities involving ethical leadership (e.g. trust, compassion, honesty, and integrity).

Empathy, ethical values, and relations-oriented behaviors can all be increased in an organization with the procedures used to develop, assess, and reward leaders. Management development programs and executive coaching can be used to improve interpersonal skills such as empathy. Multisource feedback programs and leadership training can be used to improve the use of relations behaviors. Ethical values can be included in the criteria used to assess managerial performance and select top executives. Challenge meetings and ethics hotlines can be used to allow people to question whether the core values of the organization are being upheld (Freeman and Stewart, 2006). Finally, leaders at all levels in an organization can help to create and maintain strong ethical culture by modeling and encouraging ethical behavior, challenging unethical actions and decisions, and holding everyone responsible for ethical conduct (Brown and Treviño, 2006; Mayer *et al.*, 2009; Yukl, 2010).

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### Further reading

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