Supportive supervisor communication as an intervening influence in the relationship between LMX and employee job satisfaction, turnover intentions, and performance

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ABSTRACT

This research examines the intervening role of supportive supervisor communication (SSC) in the relationship between leader-member exchange (LMX) and employee job attitudes and performance. It was predicted that supportive supervisor communication would play an intervening role in the relationship between employee rated LMX quality, employee job satisfaction, turnover intentions, and supervisor rated employee performance. Specifically, it was hypothesized that LMX would have a direct, positive influence on SSC, and that SSC would have a direct, negative influence on employees' turnover intentions, and a direct positive influence on employee job satisfaction, and two facets of contextual performance: interpersonal facilitation and job dedication. Next, it was predicted that job satisfaction would have a direct, negative influence on turnover intentions. Finally, it was predicted that job dedication would have a direct, positive influence on task performance, and thus mediate the relationship between SSC and task performance. Results based on a sample of 243 supervisor-subordinate dyads from the financial services industry provided substantial support for the theoretical model.

Keywords: supportive supervisor communication, LMX, job satisfaction, turnover intentions, contextual performance, intervening variable, mediation

"*Give and it will be given to you*" – Luke 6:36 (New International Version)

Over three decades of research on leader-member exchange (LMX) has led to an increased understanding of the powerful influence that leaders can have on employee outcomes, attitudes, and work behaviors beneficial to the organization, supervisor, and the immediate work group. Specifically, high-quality LMX has been shown to be positively related to task performance (e.g., Campbell & Swift, 2006; Chen, Lam & Zhong, 2007; Lam, Huang, Snape, 2007; Lee, Park, Lee, & Lee 2007; Vecchio & Brazil, 2007; Wakabayashi, Chen, & Graen, 2005), job satisfaction (e.g., Erdogan & Enders, 2007; Janssen & Van Yperen, 2004), satisfaction with supervisors (e.g., Greguras & Ford, 2006), organizational citizenship behaviors (e.g., Ilies, Nahrgang & Morgeson, 2007; Lapierre & Hackett, 2007; Wang, Law, Hackett, Wang, & Chen, 2005), and lower turnover (Gerstner & Day, 1997).

Rooted in social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), LMX focuses on the quality of the dyadic, interpersonal relationship between the supervisor and subordinate (e.g., Gerstner & Day; Graen & Uhl-Bien, 1995; Liden, Sparrowe, & Wayne, 1997). Supervisors have been shown to confer favorable treatment upon subordinates with whom they have high-quality LMX relationships. In return, subordinates have been shown to reciprocate favorable treatment upon their supervisors by engaging in extra-role, prosocial behaviors and extra task effort (e.g., Greguras & Ford; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Organ & Ryan, 1995; Settoon, Bennett, and Liden, 1996).

While much of the LMX literature has focused on employee reciprocation efforts, research suggests that high-quality LMX relationships may also influence leader reciprocation efforts. Specifically, leaders may confer favorable treatment upon subordinates in high-quality LMX relationships by developing high-quality communication relationships with them. Communication can be a highly valued commodity and has been described as the foundation upon which all organizational activity is based…"the very stuff of organizing" (Mumby & Ashcraft, 2006: 72)…it is fundamental to the very constitution of, and essentially gives birth to, organizing (Cooren, 2000; Mumby & Ashcraft). It's through communication interactions that organizations come into existence and function (Cooren, 2006).

The valuable role that communication plays in organizational functioning and effectiveness is acknowledged by management and organizational communication scholars and practitioners, and has been shown to relate to enhanced employee job performance, job satisfaction (e.g., Andrews & Kacmar, 2001; Goris, Vaught, & Pettit, 2000), and decreased turnover intentions (Gregson, 1990). Surprisingly, survey results concerning the skills most often the focus of leadership development programs indicated that, while communication was the most important leadership skill, it also had the largest gap between perceived importance and the actual level of competency (Delahoussaye, 2001a, 2001b).

Previous studies examining the relationship between managerial communication and employee performance have primarily focused on task-related communication such as performance feedback and direction-giving communication (Andrews & Kacmar, 2001; Goris, Vaught, & Pettit, 2000). The research reported here focuses on the supportive aspects of interpersonal communication relationships between supervisors and subordinates.

This study makes several important contributions to organizational research. First, it addresses Mueller and Lee's (2002) call for more research on other variables central to communication and communication satisfaction in organizations. Second, it addresses Cooren's (2006) appeal for more communication research focusing on how organizational interaction

actually functions. Third, it responds to Graen and Uhl-Bien's (1995) call for more research across the three domains of leadership: leader, follower, and relationship. Fourth, by focusing on supervisor supportiveness in the exchange process, this research addresses a topic on which "evidence is sparse" (Cropanzano & Mitchell, 2005: 885). Finally, it provides a better understanding of the multidimensional nature of supervisor support, its various manifestations, and its impact on employee performance.

Supportive communication has been described as discourse that builds relationships (Bass, 1990; Whetton & Cameron, 1995), and demonstrates sensitivity to others. SSC includes activities such as praising employees for their job performance, providing encouragement for their work efforts, expressing concern about their job satisfaction, expressing support for their professional development, demonstrating concern for their feelings, actively listening to their opinions, and expressing empathy and sensitivity to their needs. As such, it is suggested that SSC may be an important facet of supervisor support, which in addition to overt acts of support, may influence employee perceptions regarding the general level of supervisor supportiveness. Furthermore, supportive communication may be the most important vehicle through which supervisors provide support to their subordinates on a daily basis. It is also suggested that SSC should provide more proximal encouragement of positive employee reciprocation in the form of contextual and task performance. Since perceived supervisor support has been shown to relate to desirable employee attitudes and behaviors (e.g., Rhodes & Eisenberger, 2002), it is suggested that the relationship between SSC (a potential facet of supervisor support) and employee attitudes and performance calls for further study.

Theoretical Model and Research Hypotheses

Building off the extant literature, a model is proposed and tested in which SSC mediates the relationship between LMX and job satisfaction, and two facets of contextual performance (interpersonal facilitation and job dedication). Furthermore, it is proposed that job satisfaction will mediate the relationship between SSC and turnover intentions, and job dedication will mediate the relationship between SSC and task performance. Thus, it is expected that SSC will mediate the relationship between LMX and job dedication, and that job dedication will mediate the relationship between SSC and task performance. Finally, this study focuses on how high-quality LMX relationships positively influence the provision of SSC, and how these dynamics positively influence job satisfaction, job dedication, interpersonal facilitation and task performance, and in turn, negatively influence turnover intentions.

LMX and SSC

LMX focuses on the quality of the relationship within a supervisor-subordinate dyad and how reciprocal social exchanges develop, nurture, and sustain that relationship. Supervisors have high-quality relationships with some subordinates (the in-group) that are characterized by the exchange of quality resources such as information, support, trust, rewards, and effort (e.g., Liden, et al., 1997). In contrast, supervisors may have low-quality relationships with other subordinates (the out-group) characterized by the absence of quality resource exchanges (e.g., Dienesch & Liden, 1986). The exchange of emotional support and favorable treatment is a central part of LMX (Wayne, Shore, Bommer, & Tetrick, 2002), and while much of the LMX literature has focused on the reciprocation efforts of employees, in this study it is proposed that

supervisors also reciprocate favorable treatment with subordinates in high-quality LMXs, and do so by communicating with them in a supportive manner.

Supervisor-subordinate communication exchanges in high-quality LMX relationships are characterized by greater degrees of openness, trust, empathy, and supervisory attention, and employees in such relationships enjoy greater negotiating latitude and input in decisions (Mueller & Lee, 2002). High-quality LMX relationships can be considered "mature partnerships" and are characterized by behavioral and emotional exchanges of loyalty and support (Graen & Uhl-Bien, 1995). Campbell, White, and Johnson (2003) theorized that leaders can improve the quality of their relationships with their employees through an interpersonal communication strategy focused on rapport management.

Using qualitative discourse analysis, Fairhurst (1993) examined the presence of 12 discourse patterns in dyads with varying degrees of LMX quality. Fairhurst found that support and coaching discourse patterns that reinforce relationship-building were examples of communicative behaviors displayed in medium to high-quality LMX relationships. In contrast, antagonistic and adversarial communication behaviors were found in low-quality LMX relationships. Clearly, supportive communication represents a prime method through which supervisors can demonstrate, reinforce, and reciprocate high-quality LMX relationships.

Hypothesis 1: LMX is positively related to SSC.

LMX, Job Satisfaction, Turnover Intentions and Performance

LMX and performance

In low-quality LMXs, employee performance is more likely to be based strictly on the official employment contract (Liden & Maslyn, 1998) and reflect authority-obedience relationships (e.g., Graen & Scandura, 1987). In contrast, mature relationships characterizing high-quality LMXs are associated with a willingness by subordinates to engage in extra-role, pro-organizational behaviors (Graen & Uhl-Bien, 1995). Consistent with the norm of reciprocity and social exchange theory, research suggests that high-quality LMXs are positively related to favorable employee outcomes, including higher performance appraisals, more challenging work assignments, higher levels of empowerment, greater compensation, and greater career progress (e.g., Dienesch & Liden, 1986; Duarte, Goodson, & Klich, 1994). Such outcomes are consistent with employee efforts to effectively and efficiently perform assigned job tasks (i.e., task performance) and engage in extra-role behaviors (i.e., contextual performance).

Contextual performance

Contextual performance, (similar to organizational citizenship behavior), involves behaviors that contribute to the maintenance, enhancement (Organ, 1997), and support of the broader organizational, social, and psychological context in which task performance and the technical core must function (Borman & Motowidlo, 1993). In Hackett, Farh, Song, and Lapierre's (2003) meta-analytic study, they report a mean correlation of .32 between LMX and OCB. If contextual performance and OCB are similar constructs, then LMX should be positively related to contextual performance. Furthermore, the proposition that LMX encourages contextual performance is consistent with Graen and Uhl-Bien's (1995) observation that high-quality LMX

partnerships are characterized by a shift away from self-interest toward mutual interests. As such, contextual performance provides one way for employees to reciprocate high-quality LMX relationships.

Interpersonal facilitation

Interpersonal facilitation is one of two forms of contextual performance (Van Scotter, 2000; Van Scotter & Motowidlo, 1996), and refers to cooperative, considerate, and helpful behaviors that facilitate coworkers' performance (Van Scotter, Motowidlo, & Cross, 2000). Subordinates having high-quality LMX relationships with their supervisors should be encouraged to reciprocate by making the work environment more pleasant and by helping their supervisors. Research suggests a carryover effect from positive LMXs to relationships with peers. Specifically, supervisors' differential treatment of subordinates has been found to affect coworker communication (Sias & Jablin, 1995), and employees reporting higher quality LMXs appeared to develop collegial and special communication relationships with their peers (Kramer, 1995). Moreover, subordinates in higher quality LMXs have been found to engage in greater information exchange, self-disclosure, and emotional support with their peers (Kram & Isabella, 1985). Finally, Lee (1997) concluded that LMX quality was positively related to greater employee perceptions of cooperative communication among their peers.

Job dedication

Job dedication is the second form of contextual performance and involves self-discipline, initiative, effort, and persistence (e.g., working harder than necessary and asking for more challenging work; Van Scotter et al., 2000). It is expected that high-quality LMX relationships will motivate employees to higher levels of job dedication. Graen and Scandura (1987) proposed that in high-quality LMX relationships, supervisors get subordinates to help them on various tasks by offering desirable inducements such as influence and support. These inducements create obligations on the part of the subordinate to reciprocate by working harder to satisfy supervisor requests or by engaging in extra-role behaviors beneficial to the supervisor, such as voluntarily working overtime or helping other coworkers complete their work (Wayne & Green, 1993). While it is recognized that employee job dedication and interpersonal facilitation may be influenced by other factors such as personality (e.g., achievement needs), motivation, family upbringing (e.g., good role models, positive work ethic, etc.), it is proposed here that LMX will have a positive influence on interpersonal facilitation and job dedication.

> *Hypothesis 2: LMX is positively related to employee interpersonal facilitation and job dedication.*

Task performance

Since the positive relationship between LMX and task performance has been well established in the literature, (e.g., Campbell & Swift, 2006; Chen, Lam & Zhong, 2007; Lam, Huang, Snape, 2007; Lee, Park, Lee, & Lee 2007; Vecchio & Brazil, 2007; Wakabayashi, Chen, & Graen, 2005), a formal hypothesis regarding a relationship between these variables will not be explicitly stated. However, Wang et al. (2005) found that more than two-thirds of the variance in

task performance that was explained by LMX was mediated through organizational citizenship behavior (OCB). If contextual performance and OCB are similar constructs, then it is expected that the positive influence of LMX on task performance will be mediated through high levels of effort stemming from high levels of job dedication. Thus, employees in high-quality LMXs will be encouraged to put forth greater effort in carrying out their assigned tasks. In fact, research has shown contextual performance to be positively related to supervisory ratings of employees' overall effectiveness (e.g., Piercy, Cravens, Lane, & Vorhies, 2006; Van Scotter & Motowidlo, 1996; Whiting, Podsakoff, & Pierce, 2008). Since LMX's inverse relationship between job satisfaction and turnover intentions has been well established in the literature, t state a formal hypothesis regarding this relationship.

Hypothesis 3: Employee job dedication is positively related to employee task performance.

SSC, Job Satisfaction, Turnover Intentions, and Employee Performance

Motivating language theory (Sullivan, 1988) suggests that differences in key employee outcomes such as motivation, job performance, communication satisfaction, and job satisfaction, are influenced by how supportive managers are in their communications with employees. Communication satisfaction is an affective response to the accomplishment of communication goals and expectations (Hecht, 1978a, 1978b), and satisfaction with various aspects of organizational communication in interpersonal, group, and organizational contexts (Crino & White, 1981). Communication satisfaction has been found to be positively related to job satisfaction, productivity, leader-member exchange (LMX), organizational climate, organizational commitment, and job performance (e.g., Allen, 1996; Andrews & Kacmar, 2001; Clampitt & Downs, 1993; Gregson, 1990; Mueller & Lee, 2002; Muchinsky, 1977; Petit, Goris, & Vaught, 1997; Pincus, 1986; Putti, Aryee, & Phua, 1990) and inversely related to turnover intentions, job-related uncertainty and role ambiguity (e.g., Neuliep & Grohskopf, 2000; Pincus, 1986). Furthermore, Scott, et al. (1999) found organization-wide communication and supervisory communication relationships to be associated with decreases in intent to leave the organization. Since communication satisfaction and job satisfaction have been shown to be inversely related to turnover intentions, it is expected that the SSC will have a positive relationship with job satisfaction and an inverse relationship with turnover intentions. Since the relationship between job satisfaction and turnover intentions has been well supported in the literature, a formal hypothesis regarding these relationships will not be explicitly stated between these variables theoretical model relationship.

Hypothesis 4: SSC is positively related to employee job satisfaction and inversely related to employee turnover intentions.

Settoon and Mossholder (2002) found that the relationships between coworker trust and perspective taking and interpersonal citizenship behaviors were mediated by coworker empathic concern. Since empathic concern, support, trust, and perspective taking are consistent with supportive communication, and interpersonal citizenship behaviors are consistent with contextual performance, it is proposed that SSC should encourage contextual performance. Thus, SSC is expected to positively relate to employee reciprocated pro-organization, -supervisor, and -

coworker behaviors. It is expected that SSC will be a more proximal, behavioral manifestation of LMX quality, and thus expect it to have a more direct, immediate effect on employee reciprocation efforts, than LMX. Thus, SSC should mediate the positive relationship between LMX and employee contextual performance.

> *Hypothesis 5: SSC is positively related to interpersonal facilitation, job dedication, and employee task performance.*
> *Hypothesis 6: SSC mediates the positive relationship between LMX and contextual performance (i.e., interpersonal facilitation and job dedication.*
> *Hypothesis 7: Job dedication mediates the positive relationship between SSC and task performance.*

Method

Participants and Procedure

In this study, 448 supervisors and professional financial services employee dyads from 33 branches of six financial institutions, located in the southeastern United States, were invited to participate. The number of dyads in these six institutions ranged from 21 to 230 ($M = 74.67$; $SD = 79.26$). To encourage participation, participants were given verbal and written assurances that their individual responses would be kept anonymous. Code numbers were used throughout the data collection process to allow the matching of dyad members and to ensure that individual responses remained anonymous.

Supervisors were allotted time away from work responsibilities to complete surveys assessing their subordinates' task and contextual performance (interpersonal facilitation and job dedication), and were given instructions to mail the completed surveys back to the researchers. The number of subordinates evaluated by supervisors ranged from 1 to 31 ($M = 4.91$; $SD = 4.17$). Employees completed surveys regarding LMX and their supervisor's level of supportive communication in small group administration sessions at each of the sites. Employees absent from the scheduled administration were delivered the surveys by a branch contact with instructions to mail the completed surveys directly to the researchers.

Across all 448 population dyads, a dyad supervisor might also be a subordinate in another dyad. To prevent possible confounding created by responding in more than one role, dyads including an employee who had also participated as a supervisor in at least one other dyad were removed from the data. Excluding these dyads reduced the number of targeted population dyads across the organizations to 359 ($M = 59.83$; $SD = 68.91$). From these remaining 359 dyads, 309 employees (86%) responded to the survey, and 78 of the supervisors (88%) answered 284 surveys (79%) assessing their employees' performance. Of the 309 employees who responded, 82% were female, 48% had 1 to 5 years tenure with the organization, 59% had 1 to 5 years job tenure in their current position, and 32% had 3 or more years of dyad tenure with the same supervisor. Of the 78 supervisors who completed the survey, 56 (72%) were female. Completed surveys yielded 243 dyad matches for a dyad-based response rate of 68%.

Measures

Scales assessing "extent" had a seven-point response format ranging from 1 (Never) to 7 (Very Great Extent). All other scales employed a seven-point response format ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Cronbach alpha reliability is reported for each scale.

Leader-member exchange (LMX)

Graen and Scandura (1987) suggest that when LMX is assessed only once, subordinate assessments of LMX should be used. Their justification is that managers are more likely to provide socially desirable answers about their relationships with subordinates (i.e., that everyone is treated the same). Thus, employee assessments of LMX were used in this study. Employees' perception of the quality of their relationship with their supervisors was assessed using Liden and Maslyn's (1998) 12-item Leader-Member Exchange-Multidimensional scale (LMX-MDM). The LMX-MDM is a multidimensional measure designed to assess contribution, loyalty, affect, and professional respect. Sample items include "My supervisor is the kind of person one would like to have as a friend," and "My supervisor would come to my defense if I were 'attacked' by others." Following Liden and Maslyn's (1998) suggestion, the scale items were combined into a composite to form a global measure of LMX. Thus, the items for each of the four subscales were averaged and these four subscales were used as multiple manifest indicators of a general leader-member exchange factor ($\alpha = .91$).

Job satisfaction

Self-reported employee job satisfaction was assessed using two items from Hackman and Oldham's (1975) job satisfaction scale. The items were: "Generally speaking, I am very satisfied with my job," and "Overall I am happy with my current job" ($\alpha = .95$).

Employees' turnover intentions

Turnover intentions were assessed by employees using two of three items adapted from The Michigan Organizational Assessment Questionnaire (Camman, Fichman, Jenkins, & Klesh; Seashore, Lawler, Mirvis, & Camman (as cited in Cook, Hepworth, Wall, & Warr, 1981)). The third item was removed from the scale due to a negative correlation with the other items. ($\alpha = .80$).

Supportive supervisor communication

Employees completed eleven items assessing the extent to which their supervisors communicated with them in a supportive manner. This scale consisted of six slightly modified items from Wiemann's (1977) Communicative Competence Scale, and five slightly modified items assessing "empathic language" from Mayfield, Mayfield, and Kopf's (1995) Motivating Language Scale. These items were chosen on the basis of their strong relationship to the SSC construct, and their high reliability and validity coefficients reported in previous studies (e.g., Douglas, 1991; McLaughlin & Cody, 1982; Street, Mulac, & Wiemann, 1988; Wiemann, 1977). The three items from the Motivating Language Scale were slightly modified to more clearly

describe various ways that supervisors might communicate with employees. Specifically, "shows me" was replaced with "expresses" and "provides." The modified items were "My supervisor"…"provides encouragement for my work efforts," "expresses concern about my job satisfaction," and "expresses trust in me." The original items from the Communicative Competence Scale (Wiemann, 1977) stated how the subject (supervisor) communicated in general, or with others. These items were changed to specify the employee (participant) as the referent. The original statements were: "S…" "ignores other people's feelings," "listens to what people say to him/her," "S likes to be close and personal with people," "People can go to S with their problems," "S is sensitive to others' needs of the moment," and "S is supportive of others." The modified statements were: "My supervisor…" "expresses concern for my feelings," "really listens to my opinions," "works to build a relationship with me," "is willing to discuss my personal concerns with me," "expresses sensitivity to my needs," and "communicates with me in a supportive way." The survey instructions developed specifically for this study stated the following: "The statements below show different ways that your supervisor might communicate with you. Using the scale on the left, indicate the current extent to which your supervisor communicates that way with you" ($\alpha = .96$).

Contextual performance

Supervisors in each dyad completed Van Scotter et al.'s (2000) 15-item scale to assess their employees' contextual performance in terms of interpersonal facilitation (7-items) and job dedication (8-items). Sample items for the interpersonal facilitation scale include: "This employee…praises coworkers when they are successful", and …"helps someone without being asked." Sample items for the job dedication scale include "This employee…persists in overcoming obstacles to complete a task" and "…puts in extra hours to get work done on time." Cronbach alpha reliabilities for interpersonal facilitation and job dedication, respectively, were .89 and .88.

Task performance

Supervisors assessed employee task performance using Williams and Anderson's (1991) 7-item scale. Sample items include "This employee performs tasks that are expected of him or her," and "This employee meets the formal performance requirements of the job" ($\alpha = .85$).

Control variables

According to convention (Tsui & O'Reilly, 1989; Howell & Hall-Merenda, 1999; Kacmar, Witt, Zivnuska, & Gully, 2003), job and dyad tenure were initially included in the analyses to control for their potential effects on subordinate performance. However, results did indicate significant relationships between these variables, so they were excluded from the final analyses.

Analyses

EQS 6.1 (Bentler, 2010) statistical software with robust maximum likelihood estimators (ML) was used to conduct confirmatory factor analysis (CFA) and structural equation modeling (SEM) to analyze and test the measurement and structural models, respectively. EQS 6.1 uses the multivariate delta method to test for mediation, which is a multivariate extension of the product-of-coefficients strategy (Preacher & Hayes, 2008). Of the many methods available for estimating indirect effects in multi-mediation models, the multivariate delta method tends to be preferred (Bishop, Fienberg, & Holland, 1975; Sobel, 1982, 1986). Among several formulas for the standard error of the indirect effect (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; MacKinnon, Warsi, & Dwyer, 1995), this method has been shown to produce standard errors with the least amount of bias. However, it must be used under conditions of multivariate normality. Specifically, the individual indirect effect coefficients, as well as the sampling distributions of the total, and specific indirect effects, must follow a multivariate normal distribution. Thus, Mardia's (1970, 1974) multivariate kurtosis coefficient was used to determine the extent of multivariate normality of the data.

In addition to examining the indirect effects coefficients estimated using multivariate delta method, James and Brett's (1984) approach was also used to test for mediation, by comparing the hypothesized, fully mediated model with two alternative, nested models: a partially mediated model (hypothesized model with additional direct paths from LMX to interpersonal facilitation, job dedication, job satisfaction, turnover intentions, and task performance), and a non-mediated model, in which SSC was excluded, and LMX had direct paths to interpersonal facilitation, job dedication, job satisfaction, turnover intentions, and task performance.

Measurement models

The measurement model was constructed using multiple-indicators (Anderson & Gerbing, 1982; Hunter & Gerbing, 1982), thus providing the most unambiguous assignment of meaning to the estimated constructs (Anderson & Gerbing, 1988). To reduce the total number of manifest indicators and parameters to be estimated relative to sample size (Hayduk, 1987), item parcels were created by taking the mean of several, randomly selected items measuring the same construct (e.g., Marsh, Antill, & Cunningham, 1989; Bagozzi & Heatherton, 1994). Thus, the total number of items to be estimated was reduced to a manageable level, and produced indicators with higher reliability than could be achieved using the individual items (MacCallum, Roznowski, & Necowitz, 1992). LMX had four indicators representing the four dimensions of the LMX-MDM scale (i.e., affect, loyalty, contribution, and professional respect). SSC had four indicators, and task performance, interpersonal facilitation, and job dedication each had three composite indicators. Job satisfaction and turnover intentions were assessed with their original indicators.

Structural model

To minimize the potential for interpretational confounding, Anderson and Gerbing's (1988) two-step procedure was used to estimate the measurement model prior to simultaneously estimating the measurement and structural sub-models. Next, a series of Satorra-Bentler (Satorra

& Bentler, 1988, 1994) chi-square (SB-χ^2) difference tests (Anderson & Gerbing, 1988) were conducted to test hypotheses and assess the soundness of the proposed structural model.

Estimation and fit

An examination of Mardia's (1970, 1974) multivariate kurtosis coefficient suggested that the data lacked multivariate normality ($g_{2, p} = 100.97$, $z = 25.32$). However, this is a common occurrence in many fields of research (e.g., Micceri, 1989). When this occurs, the chi-square statistic does not follow the expected chi-square distribution, but can be rescaled to approximate the referenced chi-square distribution using the Satorra-Bentler (Satorra & Bentler, 1988, 1994) scaled chi-square test statistic (SB-χ^2), which has been shown to be the best performing test statistic under a wide array of circumstances (Chou, Bentler, & Satorra, 1991; Hu, Bentler, & Kano, 1992). In fact, the SB-χ^2 statistic has been shown to more closely approximate the chi-square distribution than its non-scaled counterparts across a wide array of distribution types, and to perform extremely well under a wide range of non-normal and normal conditions (Chou & Bentler, 1996; Chow et al.; Curran, West, & Finch, 1996; Hu et al.). While this procedure has been shown to correct for multivariate non-normality, and produce correct "robust" standard errors (Bentler & Dijkstra, 1985), the value of the SB-χ^2 and other commonly used chi-square based measures of fit are directly dependent upon sample size (Anderson & Gerbing, 1988). Thus, in addition to the SB-χ^2 statistic and the comparative fit index (CFI; Hu & Bentler, 1998, 1999) to assess fit, also used were the robust comparative fit index (RCFI), which is not dependent upon sample size, the root mean square error of approximation (RMSEA), and the corresponding 90% confidence intervals.

Results

Table 1 (shown in the Appendix) presents the descriptive statistics, reliability coefficients, and the correlations among the study variables. These results provide preliminary support for the research hypotheses. Specifically, LMX was positively related to SSC ($r = .87$, $p < .001$), employee interpersonal facilitation ($r = .40$, $p < .001$) and job dedication ($r = .31$, $p < .001$). Employee job dedication was positively related to employee task performance ($r = .80$, $p < .001$). SSC was positively related to job satisfaction ($r = .57$, $p < .001$), interpersonal facilitation ($r = .46$, $p < .001$), job dedication ($r = .35$, $p < .001$), and employee task performance ($r = .28$, $p < .001$), and inversely related to turnover intentions ($r = -.61$, $p < .001$).

Table 2 presents the results of the measurement and structural model comparisons. The factorial (convergent) validity of the measures was assessed by comparing the hypothesized measurement model (model 1) to five, more parsimonious models made up of combined factors, in which the relationships of the manifest variables (indicators) to their posited underlying latent variables (factors) were specified a priori (Anderson & Gerbing, 1988). Specifically, model 2 had six factors, consisting of a modified measurement model (1), with LMX and SSC merged into one factor. Model 3 had five factors consisting of model 1, modified by merging task performance, interpersonal facilitation, and job dedication into one factor. Model 4 was made up of four factors, and was a combination of models 2 and 3, in which LMX and SSC were merged into one factor, and task performance, interpersonal facilitation, and job dedication were merged into another composite factor. Job satisfaction and turnover intentions were kept as separate factors. Model 5 was made up of three factors in which all factors except for job satisfaction and

turnover intentions were merged into one factor. Model 6 consisted of two factors in which all factors except for turnover intentions were merged into one factor. Results show that the hypothesized seven-factor measurement model not only fit the data well, it had a better fit than the competing models [SB-χ^2 = 256.27; (df = 168, p < .01); RCFI = .97; CFI = .97; RMSEA = .05; 90% CI = .04, .06]. The two-factor model had the worst fit with the data (ΔSB-χ^2 =1286.70; (Δdf = 20, p < .001); RCFI = .52; CFI = .54; RMSEA = .17), suggesting that common method bias did not explain the observed relationships, and thus was not a major concern in this study (Erdogan, Liden, & Kraimer, 2006; Podsakoff & Organ, 1986).

Convergent validity was further assessed by examining the factor loadings of the individual measures on their a priori defined factors (Brown & Cudek, 1993). The loadings for the four LMX dimensions ranged from .58 to .89. The factor loadings for SSC ranged from .78 to .96, and those of task performance ranged from .72 to .90. The loadings for interpersonal facilitation and job dedication ranged from .79 to .86, and .65 to .87, respectively. Taken together, these results provide strong evidence of convergent validity for the measures used in this study.

The discriminant validity of the measures was assessed by loading each set of indicators on their respective factors (traits), and loading all of the supervisor rated items on a sixth factor, and the employee rated items on a seventh factor (methods). To test for discriminant validity of the traits, the hypothesized factors were allowed to correlate freely, and the methods were allowed to correlate freely, and then this model was compared to a model made up of perfectly correlated traits and freely correlated methods. A significant change in SB-χ^2 (ΔSB-χ^2) and in practical fit RCFI (ΔRCFI) provides evidence of discriminant validity. Results indicated a significant change in the SB-χ^2 value, but a small change in the RCFI [ΔSB-χ^2 = 46; (Δdf = 6, p < .001); ΔRCFI = .02; ΔCFI = .02; ΔRMSEA = .02]. However, given the factors under study, these results are fairly consistent with previous construct validity research in the social sciences (Byrne & Goffin, 1993).

Next, the discriminant validity of method effects was assessed by comparing a model with freely correlated traits (a priori hypothesized factors) and freely correlated methods (supervisor ratings and employee ratings) to a model containing freely correlated traits and perfectly correlated methods. A non-significant ΔSB-χ^2 (or minimal ΔRCFI) indicates a lack of discriminant validity, and suggests common method bias across methods of measurement. The results here show a significant ΔSB-χ^2 value and decrease in RMSEA, but, as before, the ΔRCFI was small [ΔSB-χ^2 = 12.76; (Δdf = 1, p < .001); ΔRCFI = .01; ΔCFI = .01; ΔRMSEA = .01]. These results are consistent with previous construct validity research (Byrne & Goffin, 1993). Based on the strength of statistical (ΔSB-χ^2) and practical criteria, these results suggest that, while there was evidence of discriminant validity, it was stronger for traits than it was for methods.

The structural equation model comparison results presented in the lower half of Table 2 provide satisfactory support for the proposed theoretical model (model 7). Specifically, the fit indices surpassed Bentler's (1990) CFI cutoff value of .90, and RMSEA was less than Browne and Cudeck's (1993) suggested cutoff value of .08 or less [SB-χ^2 = 366.41; (df = 183, p < .001); RCFI = .93; CFI = .94; RMSEA = .06].

Next, a Lagrange Multiplier test (LMtest) was conducted to determine if any of the fixed parameters in the theoretical model, if set free, would lead to a significantly better-fitting model (Byrne, 1994). Results from this test indicated that a path from job dedication to interpersonal facilitation would result in a better fitting model. Furthermore, the direct path between SSC and

turnover intentions was found to be non-significant. When this path was removed, LMtest results indicated that the inclusion of a direct path between LMX and turnover intentions would result in a better fitting model. Thus, a revised partially mediated model was constructed, in which there was a direct, inverse relationship between LMX and turnover intentions, and a direct, positive relationship between job dedication to interpersonal facilitation. The comparison results show that model 9 (Table 2) was a significantly better fitting model than model 7 [ΔSB-χ^2 = 77.31; (Δdf = 2, p < .001); RCFI = .96; CFI = .96; RMSEA = .05]. Specifically, the RCFI increased from .93 in model 7 to .96 in model 9, and RMSEA decreased from .06 to .05.

Mediation

Table 3 shows the standardized indirect effects coefficients for the revised theoretical model. These results provide strong support for the revised partially mediated model by showing significant indirect relationships between LMX and job satisfaction and job dedication through SSC, and between LMX and interpersonal facilitation and task performance, through SSC and job dedication. Furthermore, SSC had significant indirect relationships through job dedication, with interpersonal facilitation and task performance, and had a significant direct relationship with interpersonal facilitation, thus indicating that job dedication partially mediated the relationship between SSC and interpersonal facilitation (an unexpected result). Furthermore, job satisfaction mediated the relationship between SSC and turnover intentions. The partially mediated relationship between LMX and turnover intentions was also unexpected. The SB-χ^2 difference test results for model 10 show, that when compared to model 7, the removal of the mediator (SSC) had a profound negative impact on model fit. These results provide additional support for the inclusion of SSC in the model, and that SSC explains significant incremental variance in employee performance over that of LMX.

To test for mediation, a fully mediated model was compared to a partially mediated model (model 8) in which a direct path was specified from LMX to interpersonal facilitation, job dedication, job satisfaction, turnover intentions and task performance. Results in table 2 show that this model, while producing significant change in SB-χ^2, it did not produce a practical change in RCFI or RMSEA. Next**,** a fully mediated model was compared to a non-mediated model in which LMX had direct relationships with interpersonal facilitation, job dedication, job satisfaction, turnover intentions, and task performance, and SSC was excluded from the model. Based on these results, the non-mediated model was the worst fitting model [ΔSB-χ^2 = 406.03; (Δdf = 1, p < .001); RCFI = .78; CFI = .82; RMSEA = .12]. However, there was a significant inverse relationship between LMX and turnover intentions. All in all, these results provide strong support for a revised partially mediated model.

Discussion

The research reported here responds to Mueller and Lee's (2002) call for additional research on other variables central to communication and communication satisfaction in organizations, to Cooren's (2006) appeal for more communication research focusing on how organizational interaction actually functions, and to Graen and Uhl-Bien's (1995) call for more research across the three domains of leadership: leader, follower, and relationship. Specifically, the results of this study provide initial evidence that high-quality LMX relationships lead to supportive supervisor behaviors exemplified by supervisors' use of supportive communication

with subordinates with whom they have high-quality relationships. These dynamics, in-turn, influence follower attitudes and behaviors in terms of job satisfaction, turnover intentions, and contextual and task performance.

This study also provides substantial support for the contention that SSC mediates the influence of LMX on employees' contextual performance in terms of interpersonal facilitation and job dedication, and that job dedication mediates the relationship between SSC and task performance. Furthermore, job satisfaction mediates the relationship between SSC and turnover intentions. The exchange process unfolds whereby LMX quality encourages SSC, which in turn increases employee obligations to reciprocate in terms of increased effort to discharge the obligation, or to "pay back" supervisors' favorable treatment with acceptable commodities of exchange, such as increased levels of interpersonal facilitation, job dedication, and task performance. It appears that SSC behaviors are perceived by subordinates as being influenced by, and emanating from the quality of the LMX relationship. Subordinates appear to reciprocate supportive supervisor treatment through direct and indirect acts of kindness, benevolence, citizenship, and performance enhancement. Furthermore, beyond the initial encounter phase of relationship development, not only does LMX quality promote SSC, it seems likely that SSC may in turn serve to nourish and maintain the supervisor-subordinate relationship. Thus, future research may benefit by examining the reciprocal relationship between LMX and SSC over time.

Several compelling research questions arise: What is the relative value of SSC versus other forms of favorable treatment, and do they differ in terms of their influence on employee reciprocation efforts? Is SSC a dimension of the more general construct of perceived supervisor support discussed in the literature (e.g., Eisenberger, Cotterell, & Marvel, 1987; Gouldner, 1960; Rhoades & Eisenberger, 2002)? What role does supportive employee communication play in the LMX relationship and supervisor reciprocation efforts?

This study also demonstrates the important role that contextual performance plays in overall task performance assessments. Contextual performance, particularly job dedication, seems to translate into assessments of task performance. The only difference between the hypothesized model and the better-fitting revised model was the addition of a direct link from job dedication to interpersonal facilitation. In retrospect, it is easy to see how a supervisor's observation of an employee's job dedication behaviors (i.e., self-discipline, initiative, effort and persistence) might be perceived as causing or leading to interpersonal facilitation activities such as being pleasant, helping others, and other acts of benevolence. These results raise the possibility that, rather than being two discrete dimensions of contextual performance, interpersonal facilitation and job dedication might be causally related, particularly as assessed by supervisors. Do supervisors in fact perceive employee acts of interpersonal facilitation as behavioral manifestations of job dedication, such that they believe that employees help others because of their job dedication? Future research would benefit by explicitly focusing on the relationships between interpersonal facilitation, job dedication, and task performance. In particular, research should consider using diverse assessors of these performance measures. In the current study, all three forms of performance were assessed by supervisors. Assessments could also be made by coworkers, customers, or self.

Limitations

There are several limitations in this study that are worth noting. First, while data were collected from different sources, several adjacent constructs in study were collected using

common methods and respondents. SSC and LMX were both collected from subordinates. Employee contextual performance (i.e., job dedication and interpersonal facilitation) and task performance data were collected from each employee's supervisor. While the CFA results suggest that these constructs are unique, future research would benefit from utilizing different sources or methods for collecting theoretically adjacent constructs. And, while common method and same source concerns may generate caution in interpreting the results of portions of the model, the results still provide compelling evidence that employee assessments of LMX and SSC explained unique variance in supervisor ratings of employee contextual and task performance.

Another limitation was the utilization of a cross-sectional design rather than a longitudinal one, thus preventing causal inferences to be made. Finally, the study data were collected from dyads in only one industry. Future researchers should include multiple industries to increase generalizability, and if possible, utilize a longitudinal design to permit causal inferences.

Conclusion

Graen and Uhl-Bien (e.g., 1991, 1995) have highlighted the importance of "leadership making," i.e., efforts to improve the level of LMX in organizations so as to reap the benefits of enhanced relationship quality. The results reported here suggest that high-quality LMX relationships encourage SSC, which in turn creates an overall supportive environment that translates into higher levels of job satisfaction, a decrease in turnover intentions, and higher levels of contextual and task performance. Unfortunately, communication is a leadership skill that many supervisors are lacking (Delahoussaye, 2001a, 2001b). From a leadership making and human resource management perspective, this research suggests that, if supervisors are trained and encouraged to use more effective supportive communication strategies, organizations may reap the benefits of higher quality supervisor-subordinate relationships and greater employee contextual and task performance.

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Tables

Table 1
Descriptive Statistics, Correlations, and Reliabilities

Variable	*M*	*SD*	1	2	3	4	5	6	7
1. LMX	5.82	.98	**.91**						
2. SSC	5.05	1.44	.87	**.96**					
3. Interpersonal facilitation	5.14	1.00	.40	.46	**.89**				
4. Job dedication	5.16	1.01	.31	.35	.71	**.88**			
5. Task performance	5.71	.87	.24	.28	.45	.80	**.85**		
6. Turnover intentions	2.61	1.81	-.58	-.61	-.28	-.21	-.17	**.80**	
7. Job Satisfaction	5.69	1.28	.50	.57	.26	.20	.16	.78	**.95**

Note. $N = 243$ supervisor-subordinate dyads; reliability coefficients appear in bold. SSC = supportive supervisor communication; LMX = leader-member exchange.
All correlations .16 to .18 are significant at $p \leq .01$. All correlations over .20 are significant at $p < .001$ (one-tailed tests).

Table 2

Measurement Model Comparisons

Model Factors	$SB\text{-}\chi^2$ $\Delta SB\text{-}\chi^2$	df Δdf	RCFI CFI	RMSEA	90% CI
1. Seven factors: Baseline measurement model	256.27	168	.97 .97	.05 .06	.04, .06 .04, .07
2. Six factors: Model 1 modified with LMX and SSC merged into one factor.	337.25 80.98	174 6	.94 .94	.06 .07	.05, .07 .06, .08
3. Five factors: Model 1 modified with TP, JD, and IF merged into one factor.	509.70 253.43	179 11	.88 .89	.09 .10	.08, .10 .09, .11
4. Four factors: Models 2 and 3 combined: LMX and SSC were merged into one factor, and TP, JD, and IF were merged into another factor. JSAT and TURNI were kept as separate factors.	580.01 323.74	183 15	.85 .86	.10 .11	.09, .10 .10, .12
5. Three factors: All factors except for JSAT and TURNI were merged into one factor.	1182.41 926.14	186 18	.62 .66	.15 .17	.14, .16 .16, .18
6. Two factors: All factors except for TURNI were merged into one factor.	1454.70 1286.70	188 20	.52 .54	.17 .20	.16, .18 .19, .21

Structural Model Comparisons

Model Factors	$SB\text{-}\chi^2$ $\Delta SB\text{-}\chi^2$	df Δdf	RCFI CFI	RMSEA	90% CI
7. Fully mediated structural model	366.44	183	.93 .94	.06 .07	.05, .07 .06, .08
8. Partially mediated structural model: Model 7 plus direct paths from LMX to IF, JD, TP, JSAT, and TURNI.	342.82 23.59	178 5	.94 .94	.06 .07	.05, .07 .06, .08
9. Revised partially mediated structural model shown in Figure 1	289.10 77.31	181 2	.96 .96	.05 .06	.04, .06 .05, .07
10. Non-mediated structural model: SSC was dropped from the model with direct paths from LMX to IF, JD, TP, JSAT, and TURNI.	772.44 406.03	184 1	.78 .82	.12 .13	.11, .12 .12, .14

Note. $N = 243$ supervisor-subordinate dyads. LMX, leader-member exchange; SSC, supportive supervisor communication; IF, Interpersonal facilitation; JD, Job dedication; TP, task performance; JSAT, job satisfaction; TURNI, turnover intentions; SB-χ^2, Satorra – Bentler scaled chi-square statistic (corrects for multivariate non-normality); RCFI, robust comparative fit index (not dependent upon sample size); CFI, comparative fit index; RMSEA, root-mean-square error of approximation; CI, confidence interval for RMSEA. Models 2 through 6 were compared to model 1, and models 8 through 10 were compared to model 7. All SB-χ^2 values are significant at $p < .001$.

Table 3

Indirect Effects through Supportive Supervisor Communication, Job Satisfaction and Job Dedication

Relationship	Indirect Effect Through				
	JSAT	SSC & JSAT	SSC	SSC & JD	JD
LMX ⟶ JD			.31		
LMX ⟶ IF				.40	
LMX ⟶ TP				.24	
LMX ⟶ JSAT			.50		
LMX ⟶ TURNI		-.38			
SSC ⟶ IF					.21
SSC ⟶ TP					.28
SSC ⟶ TURNI	-.44				

Note. N = 243 supervisor-subordinate dyads. SSC, supportive supervisor communication; LMX, leader-member exchange; JD, job dedication; IF, interpersonal facilitation; TP, task performance; JSAT, job satisfaction; TURNI, turnover intentions. The indirect effects of LMX on IF are the combined indirect effects directly through SSC and through SSC and JD.

All indirect effects coefficients are significant at $p < .001$.

Figure 1 – Final Model Results