Effects of supervisor-subordinate exchange relationship quality on subordinate self-efficacy mediated by performance feedback

Kimberly Anne Koller

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EFFECTS OF SUPERVISOR-SUBORDINATE EXCHANGE
RELATIONSHIP QUALITY ON SUBORDINATE SELF-EFFICACY,
MEDIATED BY PERFORMANCE FEEDBACK

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Psychology:
Industrial/Organizational

by
Kimberly Anne Koller
June 2001
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Dr. Mark Agars
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Researchers have suggested that the quality of the relationship between supervisors and subordinates strongly influences a variety of important work-related attitudes and behaviors, which consequently impact organizational effectiveness. A variable that has demonstrated its importance in the work environment is self-efficacy, which has been linked to such organizational outcomes as job performance, motivation, productivity, and job satisfaction. Because supervisors play an integral role in properly constructing work environments that facilitate high levels of these organizational outcomes, the present study examined the potential effects of supervisor-subordinate exchange relationship quality on subordinate self-efficacy. Furthermore, various studies have investigated the role of performance feedback in the development of efficacy expectations and as a component of supervisor-subordinate interactions. Accordingly, the possible mediating effect of performance feedback was investigated as an intermediary step in establishing the indirect link between exchange relationship quality and subordinate self-efficacy. Participants, consisting of 80 male and female professionals from a large U.S.
organization, completed the Leader-Member Exchange (LMX) scale, Personal Efficacy Beliefs Scale, and a performance feedback questionnaire. A correlational approach was used to test the proposed hypotheses. While there was no relationship between the quality of supervisor-subordinate exchange relationship and subordinate self-efficacy, there were positive correlations between quality of exchange relationship and performance feedback and also between subordinate self-efficacy and performance feedback. A variety of implications arising from these findings are discussed from an organizational perspective.
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DEDICATION

I dedicate this thesis to my loving family. My parents, Al and Carleen, have always supported and encouraged me in everything I do in life. Without their help, I would have never made it this far. My siblings, Mary, Steve, and Craig have also always been there for me and watched over me. I thank all of them for being by my side. I am truly blessed to have them in my life.
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CHAPTER ONE

LITERATURE REVIEW

Introduction

Theories about the quality of the relationship between supervisors and their subordinates have been examined since the concept of Leader-Member Exchange (LMX) was introduced in the literature. It has been suggested that the quality of this dyadic interaction can strongly influence a variety of work-related attitudes and behaviors, which can consequently impact the effectiveness of an organization. Although a number of studies have examined outcomes, such as job performance, motivation, productivity, and job satisfaction, very few have investigated the impact of exchange relationship quality on self-efficacy, or beliefs one has about his or her own capabilities to perform various activities and tasks (Bandura, 1986). Self-efficacy is an important variable to investigate from an organizational perspective because it has been shown to affect a number of important outcomes on the job, such as behaviors chosen, activities engaged in, effort exerted, and persistence displayed. The present study focuses on the quality of exchange.
relationship between a supervisor and subordinate and its
effect on subordinate self-efficacy. Furthermore, various
studies have investigated the role of performance feedback
in the development of efficacy expectations and as a
component in supervisor-subordinate interactions.
Performance feedback has been found to influence both
psychological and behavioral processes, and is believed to
be a crucial element in effective role learning and
functioning. Consequently, the present study also
examines the role of job performance feedback provided by
the supervisor as a link between supervisor-subordinate
exchange relationship quality and subordinate self-
efficacy.

Quality of Exchange Relationship

It is commonly accepted that effective leadership is
a necessary component for organizations to be successful.
Social exchanges occurring between leaders and individuals
at lower levels of the organizational hierarchy, such as
the supervisor-subordinate dyad, are typically dependent
on a work-related need, completion of a task, or
attainment of a designated goal (Yukl, 1998). As
organizational roles begin to develop within this dyad,
the supervisor and subordinate agree upon the general nature of their relationship (Graen & Cashman, 1975). When effective roles are established, mutual influence allows for both parties to achieve personal and organizational goals.

Traditional models of leadership, such as the Average Leadership Style (ALS) approach, analyze supervisor-subordinate interactions in terms of a single unit (Dansereau, Graen, & Haga, 1975). This model assumes leaders have relatively similar interactions with all members of their work group. Consequently, members are assumed to hold homogeneous beliefs about their leaders and exhibit the same types of job-related attitudes and behaviors as others within their work group.

In contrast, other models, such as the vertical dyad linkage (VDL) approach to leadership (Dansereau et al., 1975; Graen & Cashman, 1975), examine dyadic interactions, such as between a supervisor and an individual subordinate. The VDL model asserts that during the role making process, unique one-on-one exchange relationships develop as a result of social interactions occurring between members at different levels of the organizational hierarchy. Levels of reciprocal influence and functional
interdependence will vary from dyad to dyad, and effective exchanges are maintained if the dyadic interactions prove to be mutually rewarding (Bass, 1990). By assuming control over the member, the supervisor is able to shape the relationship and the subordinate’s performance and work output.

Graen and his associates expanded on the VDL approach with the Leader-Member Exchange (LMX) theory, which suggests that leaders differentiate among all members in their work units by exhibiting unique relationships, interactions, and leadership styles within each dyad (Dansereau et al., 1975; Graen & Cashman, 1975; Graen, Liden, & Hoel, 1982; Graen, Novak, & Sommerkamp, 1982). By analyzing dyadic pairs, researchers have investigated the nature and maintenance of these dyadic roles, have determined which organizational outcomes are influenced by different types of exchange relationships, and have developed possible explanations for the process of role formation and its importance in an organizational setting.

A model for examining the types of LMX interactions emerges from our knowledge and understanding the role-making process. When leaders are faced with the task of developing new relationships with members in their work
groups, what results is a natural differentiation of individuals into certain roles. Because leaders have limited time and energy to expend, levels of reciprocal exchange quality within supervisor-subordinate dyads will vary (Bass, 1981; Dansereau et al., 1975). In a nine month long study, Graen and Cashman (1975) demonstrated that the same leader had different quality exchanges with individual members of his group, ranging on a continuum from high to low. The type of exchange determined the general nature of the working relationship, which influenced the behaviors, performance, and other work-related outcomes of the parties involved.

Leaders differentially value employees, and tend to foster the success of those whom they value the most. These members are provided with more attention and opportunities to gain access to resources under the leader’s control. Because providing support costs the leader time and energy, usually only a few key members develop close, high quality exchange relationships with their supervisors.

The literature distinguishes between the types of behaviors that leaders exhibit in relationships of varying quality. A supervisory technique is utilized in low
quality exchanges, in which the leader uses minimal social exchange by relying heavily on the formal employment contract. After fulfilling the conditions necessary for continued employment, members are usually only compensated by the organization, rather than the leader. In contrast, a different leadership technique is practiced with members having high quality relationships with their supervisors. By transcending beyond the authority necessitated by contractual obligation, interpersonal exchanges including mutual influence, support, and access to positional resources (Dansereau et al., 1975; Graen & Cashman, 1975; Jacobs, 1970) are used to develop more effective relationships.

Numerous studies have been conducted on the differences between high and low quality exchanges. Depending on the quality of relationship, in-groups and out-groups begin to form. An in-group member functions as a supervisor's trusted assistant and advisor (Dienesch & Liden, 1986; Yukl, 1998). This type of relationship is relatively stable and is characterized by high levels of interpersonal attraction, leader attention and interaction, and reciprocal support. Some other components in the relationship include mutual trust, open
communication, strong commitment, and loyalty, as well as a leader’s sensitivity, responsiveness, and consideration for the member’s needs and feelings (Deluga & Perry, 1994; Dansereau et al., 1975; Dienesch & Liden, 1986; Graen & Cashman, 1975).

In-group members receive a variety of special benefits and opportunities from their supervisors, including higher degrees of job latitude and independence, power and influence in decision-making, assignment to more interesting and challenging responsibilities (Dansereau et al., 1975; Graen & Cashman, 1975; Scandura, Graen, & Novak, 1986), and increased opportunities for career growth and development (Yukl, 1998).

However, the positional benefits offered to these employees don’t come for free. In exchange, leaders expect in-group members to reciprocate by meeting extra-contractual obligations, such as working harder, assuming more responsibility, living up to higher standards of performance, and being more committed to the success of the work unit than out-group members (Bass, 1990; Dansereau et al., 1975; Liden & Graen, 1980). As a consequence of these mutual exchanges, leaders gain competent, hard working, committed, and obedient
subordinates whom they have confidence in and can depend on for completing complex assignments (Bass, 1990; Deluga & Perry, 1994).

As compared to those in the in-group, out-group members have narrowly defined, lower quality exchanges with their leaders. In this case, the leader assumes the role of a coercive authority figure, focusing on directive supervision. The interactions between the supervisor and subordinate are characterized by downward influence and role-defined relations (Scandura et al., 1986). The relationship lacks the positive dimensions of warmth, support, trust, and encouragement that members experience in higher quality exchanges (Dansereau et al., 1975; DuBrin, 1998), and members receive fewer resources, information, feedback, and rewards. Furthermore, they are not expected to engage in high levels of responsibility, social exchange, or negotiation. These subordinates simply fulfill the basic requirements of the employment contract and exhibit adequate levels of performance to receive standard organizational benefits and limited rewards from their supervisors (Graen & Cashman, 1975; Yukl, 1998).
Differences in exchange relationship quality potentially predict a number of important organizational outcomes (Graen & Scandura, 1987). Members having high quality exchanges with their supervisors exhibit higher levels of job satisfaction, performance, productivity, loyalty, and organizational commitment (Danseraeu et al., 1975; Graen et al., 1982; Scandura & Graen, 1984). Additionally, these employees tend to have lower rates of turnover, reported grievances (Graen et al., 1982), and difficulties with their supervisors. In contrast, the organizational outcomes associated with low quality exchanges take on a more negative light. These employees exhibit lower levels of overall job performance (Eden, 1990) and may often show a lack of cooperation, teamwork, and compliance if they perceive a supervisor’s favoritism towards others within their work groups (Yukl, 1998). These subordinates are not as likely to volunteer for special assignments or extra work (Liden & Graen, 1980). Furthermore, since these employees receive fewer opportunities for advancing personally and professionally, they tend to exhibit higher rates of turnover and reported grievances.
By gaining a better understanding of how group members are originally differentiated into high and low quality exchanges, it may be possible for supervisors to learn how to foster high quality relationships with all members of their work units. Researchers have suggested that a number of dimensions serve as underlying factors in the early stages of the role development process. Interpersonal attraction and the initial impressions that a supervisor and subordinate hold about each other may ultimately shape the nature of their exchange relationship. They may reciprocally evaluate each other on personal compatibility, similarity, and complimentarity of attitudes, personalities, motives, and values. Additionally, they may assess each other’s abilities, the equity of potential resources to be exchanged, and mutual role expectations (Dienesch & Liden, 1986; Graen & Cashman, 1975; Yukl, 1998). Subordinates who pass the initial stages of evaluation proceed to engage in high quality exchanges.

Other studies have supported the importance of initial leader-member interactions in the development of exchange relationships. These researchers hypothesize a testing process for role development, in which a
subordinate's acceptance or rejection of a role and subsequent performance in that position are strong determinants of the resulting exchange quality. During the first few times a leader and subordinate interact in their current positions, tasks are delegated to the subordinate. The nature of these assignments and expectations for levels of performance are based on first impressions of subordinate ability (Scandura et al., 1986; Dockery & Steiner, 1990), competence (DuBrin, 1998), and knowledge of prior achievements (Eden, 1990). The quality of relationship that results is dependent upon an evaluation of whether the subordinate accepts the role, is able to satisfy a leader's requests, and meets performance expectations (Dansereau, et al., 1975; Liden & Graen, 1980; Liden, Wayne, Stilwell, 1993).

As work unit productivity is of great importance to an organization, naturally, a leader's willingness to engage in high quality relationships is significantly influenced by a subordinate's ability to achieve goals (Graen et al., 1982; Scanduran & Graen, 1984). Employees that are viewed as being highly capable and productive promote organizational effectiveness; thus, supervisors will be more inclined to promote the success of these
individuals through the development of high quality exchanges (Leana, 1986; Dockery & Steiner, 1990). A cyclical argument arises in terms of directionality, as studies have found evidence supporting both of the following: exchange relationship quality leading to increases in subordinate job ability and subordinate ability as a determinant of exchange quality. The delegation of challenging work assignments usually takes place in higher quality relationships (Schriesheim, Neider, & Scandura, 1998). These assigned tasks then provide subordinates with the opportunity to build more skills, increase job competencies, and prove their level of ability. An unfortunate consequence of developing high quality relationships with only certain members of the work unit is that employees initially thought of as lower performers may be forfeited the chance to prove their worth on the job, as they are not given the same opportunities to demonstrate what they are capable of doing. Although categorized as “low performers,” these employees may still be highly capable of meeting their supervisor’s expectations (Eden, 1990).

Numerous studies have demonstrated a positive correlation between high quality relationships and
subordinate job performance (Dansereau et al., 1975; Dockery & Steiner, 1990; Liden & Graen, 1980). Although there has been an extensive review of the factors contributing to the development of exchange relationship quality, there has been a limited examination of the intervening processes that connect supervisor-subordinate interactions to increased levels of work performance. One proposed mechanism is the intermediary step of exchange relationship quality having an influence on a subordinate’s confidence in completing assigned tasks and attaining desired performance levels.

Researchers have shown that increases in worker performance can result from another person’s positive expectations of that worker’s ability to complete tasks (Eden, 1990). As subordinates are extremely receptive to the information they receive from their supervisor, the type of leadership behaviors that the supervisor utilizes and the feedback information that is provided can enhance or reduce subordinates’ self-expectations. Furthermore, high quality exchanges involve expectation behaviors that are similar to those utilized when expressing confidence in a subordinate’s ability and likelihood of future success. It is the supervisor’s role to provide
subordinates with a wide array of support, consideration, direction, and guidance so that these individuals can form high performance expectations about themselves through work achievements (Eden, 1990).

Murphy and Ensher (1999) demonstrated the importance of fostering subordinates' expectations of ability, as they found that subordinates showed increases in self-efficacy and resulting performance when they engaged in high quality interactions with their supervisors. Ballentine and Nunns (1998) also showed that people with low self-efficacy drastically improved performance and efficacious beliefs when they received supervisory support. Additionally, other researchers have noted that performance can be positively affected by treating employees as if they have the capabilities to succeed, especially ones considered to be low performers. An encouraging style of leadership may actually motivate workers to apply themselves to the limits of their capabilities, more so than they would have had they not received the encouragement (Eden, 1990). Consequently, it is of interest, in conjunction with what we know about how performance expectations are attained in the workplace, to
investigate the nature of the association between supervisor-subordinate exchange relationship quality and subordinate self-efficacy.

Subordinate Self-Efficacy

Self-efficacy expectations have been defined as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). These expectations involve making internal cognitive perceptions about one's competence and performance capabilities. In turn, these perceptions influence thought patterns, emotional arousal, and such behaviors as task choice, effort, and persistence. Ultimately, self-efficacy is an important element in performance, as people who are lacking it tend to behave ineffectually, even though they may possess the skills and knowledge necessary for completing a task. Being efficacious involves more than just possessing requisite skills; it entails the organization and effective orchestration of cognitive, social, emotional, and behavioral subskills (Bandura, 1997, p. 37). By taking into consideration the influence that self-efficacy has on a number of important
organizational outcomes, it will be necessary to further investigate its conceptual framework, including the origins of efficacy expectations, their structure, the processes through which they function, and their modifiability.

Bandura (1977, 1986) proposed four major informational sources of self-efficacy expectations: mastery experiences, vicarious experience, verbal persuasion, and emotional arousal. Each of these sources can be translated into terms of an organizational setting to develop an understanding of how managerial behavior influences subordinates' self-efficacy beliefs. To begin with, mastery experiences are the most potent and influential type of efficacy information. These experiences are defined as past performance accomplishments. They serve as a source of irrefutable evidence that one possesses the ability to attain required performance levels.

Previous successful experiences build the skills, exposure, and coping strategies necessary to perform (Bandura, 1982) and allow an individual to generalize former achievements to future situations. Although self-beliefs become resistant to adversity with exposure to
successes, repeated past failures can lower efficacy by causing a person to fear challenging tasks and develop debilitating beliefs about one’s performance capabilities. Weak self-expectations are highly vulnerable to change, and self-doubts can quickly mount when people face difficulties early in a course of action (Bandura, 1986).

As repeated successful performance has been shown to boost self-efficacy, a supervisor has an influential role in ensuring that subordinates experience success on the job. By carefully structuring work assignments, beginning with easy ones and progressively increasing task difficulty over time, supervisors can strengthen subordinate self-efficacy. They can facilitate the accumulation of successful performance experiences and prevent failure by removing obstacles in performance attainment (Gardner & Pierce, 1998). Success persuades these subordinates to believe they possess the necessary ability to pursue more difficult tasks in new situations. Additionally, by allocating tough assignments, supervisors convey to subordinates their beliefs in the subordinates’ capabilities to achieve challenging goals and exhibit outstanding performance.
Vicarious experiences function as another source of efficacy expectations and occur through a process of observation and generalization. Individuals draw conclusions about their own self-efficacy when they witness the successes or failures of another person that is deemed to be similar to themselves. Seeing or visualizing the successful achievements of similar others contributes to a person's beliefs that he or she possesses the capabilities to complete comparable activities (Bandura, 1982; Bandura & Adams, 1977). Efficacious role models serve as an important and credible source of information because they assist observers in developing effective strategies for mastering challenging activities and demonstrate the components and effort levels necessary for the successful attainment of goals. A training method that supervisors may utilize to promote the development of subordinate self-efficacy is behavior role modeling. By exposing subordinates to positive models, individuals can learn to master requisite skills and strengthen self-confidence (Eden, 1990).

In addition to vicarious experiences, leaders can strengthen self-efficacy by using verbal persuasion to transmit expectations and convince individuals they
possess the capabilities to succeed. This encouraging feedback results in increased levels of self-efficacy and a greater mobilization and sustenance of effort (Bandura, 1986). Social influence also provides mental support by encouraging individuals to engage in challenging tasks in the future, especially ones that have overwhelmed them in the past (Bandura 1977). Eden (1990) commented, "a respected person considered to be a credible source of information can talk someone into higher self-efficacy" (p. 133). For example, workers with low self-efficacy tend to underestimate their abilities. Through an encouraging conversation with a mentor, verbal persuasion can be an effective way to convince these workers that their lack of competence is being exaggerated and that they should expend more effort, rather than dwell on perceived deficiencies. When given realistic feedback about their capabilities, these workers will learn to use their skills more efficiently (Bandura, 1997).

Evaluative feedback on task performance can also serve as a source of persuasive efficacy information, especially when the feedback communicates a supervisor’s confidence in the subordinate’s personal performance potential (Bandura, 1997). Even if the feedback is false,
studies have shown that self-efficacy levels rise when a person receives positive feedback about his or her skills and what can be accomplished when these skills are used (Bandura, 1986). A possible intervention supervisors can utilize in aiding subordinates with chronic low self-expectations is to encourage the recognition of improvement over time. "Consistent encouraging, supporting, and reinforcing of high expectations resulting in the adoption, acceptance, or internalization of high expectations on the part of subordinates" is a sure-fire way to increase efficacy beliefs (Eden, 1990, p. 125).

Lastly, physiological states can influence levels of efficacy. Stressful, aversive, and challenging situations that elicit increases in biological arousal states can impact personal efficacy beliefs by leading people to think they are susceptible to some type of dysfunction. Reactions to believed ineptitudes tend to be fear provoking and can debilitate performance (Bandura, 1982; Bandura & Adams, 1977). Consequently, individuals do not expect to be successful when they have aversive arousal reactions, which results in failed attempts in completing tasks. Supervisors can try to reduce the stress that
results in negative physiological arousal by providing the necessary support when subordinates become overwhelmed.

Efficacy beliefs differentially influence thought patterns, emotional arousal, and behaviors. To begin with, people with low self-efficacy tend to dwell on their deficiencies and visualize things going wrong. These doubts undermine the utilization of abilities one already possesses and diverts attention from the best course of action to pursue. When failures are encountered, inefficacious individuals attribute it to internal factors, such as deficient ability (Bandura, 1986). In contrast, high levels of efficacy allow for the proper allocation of efforts and devotion of attention to the situation at hand, which enables efficacious individuals to succeed when faced with obstacles. If they do fail, they blame it on insufficient effort, poor planning strategies, or situational factors, such as bad luck. These cognitive thought processes allow for the visualization of successful scenarios and act as positive guides towards effective courses of action (Evans, 1989).

Additionally, self-efficacy is a source of differences in emotional reactions. Efficacy changes vulnerability to stress, anxiety, depression, and other
forms of emotional well-being. People that develop strong support systems are less vulnerable to succumb to these forces because the support systems act as buffers against emotional strains. On the other hand, people that lack a sense of self-worth, because they cannot attain their goals, will be more susceptible. When encountering failures, they dwell on their deficiencies, which only exacerbates their problems (Evans, 1989).

Self-efficacy is an important predictor of a variety of behaviors, such as choices about which activities to engage in, the effort one exerts when completing a task, and the length of time one persists when faced with difficulty or failure (Bandura, 1982). In combination, these three factors have a powerful impact on performance outcomes. Self-efficacy beliefs guide the decisions that individuals constantly make about which courses of action to pursue. In general, people choose to engage in activities they believe they can succeed at and master. Conversely, they have a propensity to avoid tasks and situations they believe exceed their capabilities (Bandura, 1982). To elaborate, people that have high efficacy beliefs tend to select more challenging tasks. If successful task completion occurs, their competencies
are strengthened and their efficacy is reinforced. As a result, they have an increased likelihood of personal growth, mastering challenges, and experiencing success in the future. On the other hand, self-doubts and debilitating beliefs can preclude people from engaging in opportunities for personal and professional development, which may negatively impact resulting performance (Bandura, 1982; Gist & Mitchell, 1992).

Finally, as efficacy increases, so does sustained task effort and persistence in the face of obstacles, challenging situations, and failure. Efficacious individuals exert perseverant effort to reach optimal performance levels. By testing alternative strategies and behaviors necessary for successful attainments, they persist until challenges are overcome and mastered (Bandura, 1986). In contrast, individuals with low self-efficacy are likely to give up when faced with difficult situations, resulting in a high probability of failure in the future.

From an organizational perspective, research has shown efficacy's interrelatedness with a number of important variables in the work setting. Although the quality of supervisor-subordinate exchange relationship
has not been established in the literature as an integral component in fostering and maintaining subordinate self-efficacy beliefs, it is plausible that a link between the two factors does exist. To begin with, mastery experiences, vicarious experiences, and verbal persuasion are all sources of self-efficacy that are partially under a manager’s control. As such, assessments that subordinates make about their efficacy may be influenced to a large degree by the extent to which a supervisor engages in leadership styles that serve to enhance one’s performance capability beliefs. Saks (1995) supported this argument by demonstrating when organizations provided mastery experiences, successful role models, and encouraging performance feedback to new employees, efficacy was enhanced. Similarly, Shea and Howell (1999) found leaders who inspired followers to accomplish challenging goals, communicated high performance expectations, expressed confidence in followers abilities to live up to expectations, and provided task feedback were able to effect high performance levels by raising follower self-efficacy perceptions. Furthermore, it has been shown that through effective monitoring techniques, leaders can help members enhance and maintain levels of
performance, effectiveness, and potential for success on the job (DeMoulin, 1993) and also boost confidence by focusing their attention on the skill levels and needs of subordinates (Gardner & Pierce, 1998).

One of the most concrete examples of exchange quality having an impact on subordinate self-efficacy comes from the work of Murphy and Ensher (1999). Not only did they find that subordinates reporting high levels of work self-efficacy also reported being liked more by their supervisors, were rated as better performers, and experienced more positive relationship quality, but they were able to demonstrate that subordinates’ efficacy expectations would change as a result of the nature of the relationship they had with their supervisors. Subordinates who initially rated themselves low in self-efficacy reported increases in efficacy after engaging in high quality relationships with their supervisors. Taking these arguments into consideration, the following hypothesis is proposed for the present study:

Hypothesis 1: There is a significant positive correlation between the quality of supervisor-subordinate exchange relationship and the subordinate’s self-efficacy to do his or her
job. In other words, higher quality exchanges are associated with higher levels of self-efficacy and lower quality exchanges with lower levels of self-efficacy.

In keeping with this line of thought, it is important to examine possible mechanisms by which supervisors may influence their subordinates' self-efficacy. It goes without saying that supervisors have a strong influence over their subordinates and possess the ability to bring about changes in their attitudes and behaviors. Although empirical evidence is lacking, some research points in the direction of performance feedback as being an indirect, mediating link between the quality of supervisor-subordinate exchange relationship and resulting subordinate job self-efficacy. Larson (1984) suggested, "informal performance feedback from a supervisor can have a significant and generally desirable impact on the performance and job-related attitudes of their subordinates" (p. 42). Likewise, other researchers have demonstrated that persuasive efficacy information, which highlights personal capabilities, is often conveyed in the evaluative feedback communicated to recipients and has been shown to raise efficacy beliefs (Bandura, 1997; Gist
and Mitchell, 1992). A further examination of performance feedback is necessary to understand the nature of its role as a possible mediating link between exchange relationship quality and subordinate self-efficacy.

Performance Feedback

Researchers recognize feedback about an individual's performance on the job as an essential component of interpersonal interactions and communication processes within the work environment. More specifically, performance feedback has been found to influence both psychological and behavioral processes and is believed to be a crucial element in effective role learning and functioning. Although feedback is multidimensional in nature, studies in this field have emphasized the motivational and performance-related outcomes associated with its provision. Feedback has been described as a "tool that organizational leaders have at their disposal with which they can motivate, direct, and instruct the performance of subordinate members" (Ashford & Cummings, 1983). From the perspective of the present study, this becomes important, as motivation and performance concepts are highly interrelated with the self-efficacy and quality
of supervisor-subordinate exchange relationship variables that are being investigated. A number of issues concerning the context and manner in which performance feedback messages are transferred between the sender and receiver need to be discussed to gain a better understanding of this concept’s importance in the workplace.

Although there is little consensus on its definition, Ilgen, Fisher, and Taylor (1979) have described feedback as a communication process by which a message, usually pertaining to the appropriateness of performance results or an individual’s past behavior, is relayed to a recipient by a sender or some other source. It is believed that individuals actively monitor the environment for sources that provide these informational cues about how well they are doing on assigned tasks and how others are perceiving and evaluating their performance (Ashford & Cummings, 1983). By nature, feedback is an important resource to these individuals, as it provides an opportunity to gain valuable information about the correctness, accuracy, or adequacy of one’s behavior (Ilgen et al., 1979). After being communicated, feedback messages are interpreted and transformed into meaningful
components to serve as guides for choosing between alternative courses of action and pursuing effective strategies when working towards future goals.

From an organizational perspective, the following characteristics have been outlined in the literature as key components influencing the feedback process: purposes/goals, functions, dimensions, and sources. To begin with, a critical goal in providing feedback is to communicate incremental increases in knowledge about performance, above and beyond what is already possessed by the individual, to reduce uncertainty associated with engaging in certain behaviors (Ilgen et al., 1979). Referent information about what is required of the employee to function successfully on the job, and appraisal information concerning how others are perceiving and evaluating the enacted behaviors, allow the feedback recipient to make decisions about which of many alternative courses of action to pursue in achieving desired goals (Greller & Herold, 1975; Ashford & Cummings, 1983). Additionally, comparing and evaluating discrepancies between current performance and reference standards creates a corrective motivation, by which
information about inappropriate past behaviors can be utilized to eliminate errors in future performance (Shannon & Weaver, 1949).

Second, feedback may serve a cuing function by providing signals about the relative importance and value of various goals to the organization and its members. This information directs an individual to exhibit behaviors that are integral in achieving goals (Vroom, 1964). Furthermore, if the employee perceives successful task performance as being personally beneficial or as having a high probability of future payoff (Ashford & Cummings, 1983), he or she may be motivated to devote more attention and effort to specific goal-directed activities. In this sense, feedback serves as an incentive, or a promise of rewards to come, and can influence and strengthen behavior before goals are reached or rewards are even allotted (Annett, 1969).

Finally, feedback plays a crucial role in developing one’s sense of competence and self-concept, both of which serve as powerful influences on future behavior and performance. By nature, individuals desire to competently interact within their work environments. Ilgen et al.
(1979) stated that both internal and external cues provide information necessary to make judgments about one's competence. Likewise, Ashford and Cummings (1983) noted:

> While it is clear that achieving feelings of competence probably requires more than feedback as to how one's behaviors are perceived and evaluated, feedback is, however, a central, necessary resource to: understanding the environment; making self-evaluations; and, therefore, to developing and sustaining feelings of competence. (p. 375-376)

The primary functions or outcomes of providing feedback messages are most often described as being twofold: directional and motivational (Locke, Cartledge, & Koeppel, 1968). On one hand, feedback may direct and regulate behavior by keeping it on course and in line with appropriate goal-directed activities. A possible explanation for how this is accomplished is through the clarification of organizational role requirements. Feedback can be used to support or reinforce desirable performance or indicate a need for improvement by communicating which behaviors should be executed in order to achieve goals associated with one's position. On the
other hand, performance feedback can serve a motivational function. When linked to the promise of future rewards, it acts as an incentive and has the ability to stimulate and maintain greater effort on behalf of the recipient. By strengthening effort to performance expectations, feedback enables individuals to perform at higher levels (Ilgen et al., 1979).

The dimensionality of feedback encompasses its valence, timeliness, and amount/frequency. These characteristics influence the way a recipient perceives, accepts, and responds to the feedback message. To begin with, feedback can assume a positive or negative valence, which relates to the perceived attractiveness or value of the information conveyed in the message (Cusella, 1987). In pursuing goals, positive feedback indicates favorable information about performance and progress, including satisfaction, acceptance, and/or praise. In contrast, negative feedback communicates that the recipient has engaged in undesirable behavior or exhibited unsatisfactory performance. It may serve as a corrective signal to prevent inappropriate behaviors in the future (Cusella, 1987). In general, people more readily accept...
and respond to positive feedback and its perception and recall tends to be more accurate than for negative feedback.

The timeliness of feedback refers to the interval between the occurrence of the recipient’s behavior and the provision of performance feedback. Immediate feedback has been found to be more effective at improving performance because it allows the recipient to establish a meaningful link between the feedback and appropriate behaviors (Ilgen et al., 1979) and permits an opportunity to modify present response behavior. Finally, feedback amount/frequency denotes the quantity and rate of occurrence at which feedback is given. Although subject to debate, many researchers generally accept that the more frequent the feedback, up to a reasonable point, the better (Ilgen et al., 1979).

Researchers have proposed different characterizations for sources of feedback information. Greller and Herold (1975) outline five sources: the formal organization, immediate supervisor, co-workers, the task, and self. Studies have found that of the various sources, the self provides the most feedback, followed by task, supervisor, co-workers, and organization (Herold, Liden, &
Leatherwood, 1987). Due to blurred lines in distinguishing formal-organizational (e.g., personnel, salary, and performance information) from supervisory feedback and task from self-feedback, Ilgen et al.'s (1979) categorization has proved to be more useful. They categorize the sources of feedback into the three following classifications: other individuals, such as supervisors, co-workers, subordinates, or clients; information inherent to the task environment or from carrying out the task itself; and, individuals judging their own performance, also known as self feedback.

A recipient's perception and acceptance, as well as his or her desire to respond to feedback, varies based upon characteristics of the source (Ilgen, et al., 1979). Of particular importance are credibility, power, and saliency. First, the recipient must not only perceive the source as being credible and trustworthy, but the source must also possess enough expertise to accurately judge the behavior, including familiarity with the task and the recipient's performance on that task in the past. High levels of power, or the degree to which the source controls the rewards and sanctions the recipient receives, has also been associated with the recipient's willingness
to accept and respond to the feedback. Finally, individuals rely heavily on and are more likely to respond to feedback that comes from sources that are closest to themselves (Greller and Harold, 1975). In this case, the self would be the most salient source and relied on most heavily, followed by the task, supervisor, coworkers, and the organization.

When comparing power and saliency, researchers have found a discrepancy concerning which source is perceived as being more informative and has a larger impact on behavior. On one hand, saliency models conjecture the task, self, and peers carry more weight. On the other, models emphasizing power as the dominant factor argue that supervisory and organizational feedback are most influential (Ilgen et al., 1979; Becker & Klimoski, 1989).

In comparing supervisory to other types of feedback, a possible explanation for this phenomenon is when a legitimate authority figure questions a subordinate’s performance, attention is immediately focused on the problem and corrective action is initiated. In contrast, although task and self-based feedback may be provided more often than supervisory feedback, they usually provide an incomplete picture of performance. Bandura (1997) notes
that people cannot solely rely on internal sources of information about their performance and capabilities because "such judgments require inferences from indicants of talent about which they may have only limited knowledge" (p. 104). As such, internal sources alone do not direct individuals to new goals or provoke corrective action in goal attainment (Greller & Parsons, 1992).

It goes without saying that supervisors possess the ability to elicit changes in their subordinates' attitudes and behaviors. One goal of the present study is to examine the role of performance feedback as an intermediate step by which supervisors can exert their influence over subordinates. Establishing this indirect link requires the exploration of two paths: (1) the quality of exchange relationship influencing the provision of performance feedback, and (2), the provision of performance feedback impacting subordinates' perceptions of self-efficacy. The expected interrelationships among the three variables being examined can be illustrated as follows: the quality of supervisor-subordinate exchange relationship → performance feedback → subordinate self-efficacy.
In regards to the first path in this model, there has been little empirical evidence supporting the role of performance feedback as an element in exchange relationship quality because poor measures currently exist for studying the feedback variable from this perspective. However, as suggested by previous findings, it is plausible that supervisors incorporate a great deal of feedback into their interactions with subordinates. For example, Larson (1984), in addition to other researchers in this field (Dansereau et al., 1975; Graen & Cashman, 1975), found that supervisors vary widely in the amount of informal, day-to-day feedback that is provided to subordinates.

Additionally, leadership research has shown that an important contextual variable impacting a leader’s effectiveness is the availability of task feedback (Shea & Howell, 1999) and that effective leaders who engage in high quality relationships contribute to their employees’ work performance by clarifying goals and expectations, explaining how to meet expectations, reviewing performance, and providing feedback on the progress of goal attainment (Bass 1990). Without feedback about how one is progressing on assignments and performing against
set standards and expectations, individuals have difficulty gauging their capabilities and judging how they are doing on the job (Bandura, 1982). Because supervisors are believed to be capable of serving as a credible source of performance information and possess the expertise necessary to accurately observe, monitor, and evaluate a subordinate’s performance, the information they provide has been shown to greatly impact recipients’ performance and attitudes.

Some research has further elaborated, by suggesting that the salience of a subordinate’s performance affects the likelihood that a supervisor will provide feedback regarding that performance. Larson (1984) argues that salient performances capture the supervisor’s attention and therefore have a higher probability of eliciting feedback information. Being that poor quality relationships between supervisors and subordinates usually involve a lesser degree of interaction and fewer opportunities for performance to be noted and evaluated, it seems plausible that lower quality exchanges would be associated with lower levels of performance feedback than higher quality ones. Furthermore, it has been documented that supervisors generally exhibit a reluctance to give
subordinates feedback about poor performance (Larson, 1986) and that more feedback is often given to those who are expected to excel (Eden, 1990). Since members of low quality exchanges are often poorer performers (Dansereau et al., 1975), it also seems rational that these employees will receive lower levels of performance feedback than high performers. Consequently, the second hypothesis of the present study is as follows:

Hypothesis 2: There is a significant positive relationship between the quality of supervisor-subordinate exchange relationship and performance feedback provided by the supervisor. In other words, higher quality exchanges will be associated with higher levels of performance feedback and lower quality exchanges will be associated with lower levels of performance feedback.

Empirical support has been stronger for the second path in the proposed model, the association between performance feedback and self-efficacy. In the work environment, people seek both internal and external information about their actions to help them interpret and
structure their future attitudes and behaviors. Bandura (1977, 1986) has demonstrated that an essential ingredient in developing perceptions of self-efficacy is feedback on actual task performance. Not only does feedback facilitate comparison against standards so that individuals can identify and eliminate errors and implement appropriate interventions, but it also allows individuals an opportunity to improve and perfect job-related skills.

Additionally, "by being persuaded by the feedback that they have the capabilities to succeed, they use the skills they have learned more efficiently" (Bandura, 1997, p. 443). This information may foster the recipient’s self-expectations when it is accepted and internalized, causing an intensification of effort. More often than not, this increase in effort enhances performance and goal attainment, which further reinforces one’s self-efficacy (Eden, 1990; Ashford & Cummings, 1981). Little attempt has been made to understand supervisory feedback as a contributing factor to higher levels of job self-efficacy. Therefore, the above theorizing and empirical findings lead to the following hypothesis:
Hypothesis 3: There is a significant positive relationship between performance feedback provided by the supervisor and subordinate self-efficacy. In other words, higher levels of performance feedback will be associated with higher levels of self-efficacy, and lower levels of feedback will be associated with lower levels of self-efficacy.

A final goal of the present study was to examine performance feedback's role as a potential mediating link between supervisor-subordinate exchange relationship quality and subordinate self-efficacy. This goal lead to the following mediation model:

Hypothesis 4: The relationship between the quality of supervisor-subordinate exchange relationship and subordinate self-efficacy is mediated by performance feedback provided by the supervisor.
Participants consisted of 80 professionals recruited from a large entertainment organization in Southern California. There were 58 females and 21 males in this sample (one participant did not indicate a gender). Participants ranged in age from 23-62 years, with an average of 37 years. In terms of ethnicity, the group was approximately 71% Caucasian, 11% Asian, 8% Hispanic, 4% African American, 2% classified themselves as “other”, and 4% did not indicate an ethnicity. About one third of the participants had completed some college, nearly one half had graduated from college, and almost one sixth had completed post-graduate studies. Length of service with the organization ranged from 3 months to 32 years and averaged 10.25 years. Participants worked in their current positions for an average of 22 months, with a range from 2 months to 15 years. Finally, the average participant worked for his/her current supervisor for 20.5 months, with a range from 1 month to 11 years.
Procedure

Survey packets were distributed to individual employees. Subjects were informed that the general nature and purpose of the study was to gain a better understanding of how certain work environment factors influence various job-related attitudes, behaviors, and interactions. They were also informed that their involvement would be anonymous and voluntary. Participants were then instructed to fill out the forms on their own time and return them to the researcher via inter-office mail. The final response rate for the returned surveys was 71% (n = 80).

Measures

The survey packets contained an informed consent form (see Appendix A), the Leader Member Exchange (LMX) scale, the Personal Efficacy Beliefs Scale, and a performance feedback questionnaire (see Appendix B, Parts I, II, and III respectively), a demographic information sheet (see Appendix C), and a debriefing statement (see Appendix D). The three scales were arranged in six counterbalanced orders, with the informed consent form placed at the...
beginning of the packet and the demographic information sheet and debriefing statement placed at the end of the packet.

Demographic Information

Participants were asked for their age, gender, ethnicity, level of education, and the number of months/years spent working for the organization, their current supervisor, and within their current position.

Quality of Exchange Relationship

Eight items were used to measure the quality of exchange relationship between supervisors and subordinates. The first seven items were adopted from the Leader Member Exchange (LMX) scale (Scandura and Graen, 1984). These items were revised according to word and response option changes made by Liden, Wayne, and Stilwell (1993). Additionally, one question pertaining to in-group/out-group differentiation in LMX quality was added to the survey in order to verify that the scale was capturing the in-group/out-group distinction. This question read, “In comparison to other coworkers in my work unit, I consider myself to be a member of my supervisor’s in-group/inner-circle.” The response options followed the 7-point scale of 1 - Strongly Disagree, 2 -
Disagree, 3 - Mildly Disagree, 4 - Neutral, 5 - Mildly Agree, 6 - Agree, 7 - Strongly Agree. Participants' responses to the seven original LMX items were summed across the scale and then averaged to obtain a score ranging from 1, indicating a low quality exchange relationship, to 7, indicating a high quality exchange relationship. The Liden, Wayne, and Stilwell scale has previously demonstrated reliability, with a Cronbach's alpha of .91 for organizational samples (Liden & Maslyn, 1998). The Scandura and Graen LMX-7 scale has consistently shown criterion-related validity. It has been found to be negatively related to turnover (Graen et al., 1982) and positively related to decision making and performance ratings (Scandura et al., 1986). In the present study, Cronbach's alpha for this scale was .94, thus demonstrating high internal consistency.

Subordinate Self-Efficacy

The Personal Efficacy Beliefs Scale (Riggs et al., 1994) was used in the present study to measure efficacy levels across a variety of jobs held by subordinates. This scale consists of ten items, with Likert-type responses following the 7-point scale of 1 - Strongly Disagree, 2 - Disagree, 3 - Mildly Disagree, 4 - Neutral,
5 - Mildly Agree, 6 - Agree, 7 - Strongly Agree. After reverse scoring negatively worded items (e.g., "I doubt my ability to do my job."), the item responses were summed and averaged to produce a score ranging from 1, indicating low levels of self-efficacy, to 7, indicating high levels of self-efficacy. Riggs et al. (1994) demonstrated the scale's strong internal consistency reliability ($\alpha = .86$), and also demonstrated predictive validity (ranging from .22 to .30) with measures of subsequent performance variables. In the present study, Cronbach's alpha for this scale was .70.

**Performance Feedback**

In order to assess job performance feedback provided by the supervisor, scale items had to be constructed for the present study because no measures in the present literature captured the aspects of feedback we were interested in examining. Questions were developed based on the research of Hackman and Oldham (1975), Herold and Parsons (1985), Becker and Klimoski (1989), and Brief and Hollenbeck (1985). The dimensions of performance feedback that were examined included valence (positive or negative), timeliness, amount/frequency, and content/specificity. Fourteen questions were created.
Sample questions include, "My supervisor compliments me when I do my job well," and "I receive a considerable amount of feedback from my supervisor concerning my work performance." The response options followed a 7-point scale of 1 - Strongly Disagree, 2 - Disagree, 3 - Mildly Disagree, 4 - Neutral, 5 - Mildly Agree, 6 - Agree, 7 - Strongly Agree. After reverse scoring negatively worded items (e.g., "My supervisor rarely provides me with feedback about my job performance."), participants’ responses to the fourteen items were summed and averaged across the scale to obtain a score ranging from 1, indicating a low levels of performance feedback, to 7, indicating a high levels of performance feedback. In the present study, Cronbach’s alpha for this scale was .97, thus demonstrating high internal consistency.
Prior to beginning data analysis, SPSS was used to evaluate assumptions on the three main variables: quality of exchange relationship, subordinate self-efficacy, and performance feedback. The full data set contained responses from 80 employees, which was an adequate number of participants to perform the proposed analyses with a power of .80 (Cohen, 1992).

Using z scores and a criterion of \( p = .001 \), the criterion variable, subordinate self-efficacy, was examined for univariate outliers. One outlier was found but was not deleted from the analysis. Although this participant’s averaged self-efficacy scale score (3.70) was lower than the mean (5.71), the responses were appropriate and consistent with what the scale was trying to measure. Multivariate outliers among the predictor variable and the mediating variable, quality of exchange relationship and performance feedback, were examined through the use of Mahalanobis distance with a criterion of \( p = .001 \). One multivariate outlier was detected but, once again, was not deleted. This participant was
different in comparison to others because his/her averaged performance feedback score (1.79) was very low, while his/her averaged quality of relationship score (6.71) was very high. However, the responses were appropriate, so the case was retained for further analysis.

The assumptions of normality, linearity, and homoscedasticity were examined through an examination of scatterplots of residuals and predicted scores. There was evidence that these normality assumptions were met, even though the self-efficacy scale was slightly negatively skewed, an outcome that is common with scales measuring this construct. Additionally, there was no evidence of multicollinearity or singularity. Finally, the three scales were examined for order effects due to counterbalancing. No order effects were found. After evaluation of the assumptions, the major analyses were performed on all 80 cases.

Table 1 presents the means, standard deviations, and internal consistency reliabilities for the three main variables and the additional question added to the quality of exchange relationship scale (LMX-7). As previously noted, the eighth question (Q8) was added to this scale to check the psychometric properties of the LMX-7 scale in
Table 1

Means, Standard Deviations, and Cronbach's Alpha for Self-Efficacy, Performance Feedback, and Quality of Relationship (LMX-7 and Q8) Scales

<table>
<thead>
<tr>
<th>Scales</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Efficacy</td>
<td>5.71</td>
<td>0.60</td>
<td>.70</td>
</tr>
<tr>
<td>Performance Feedback</td>
<td>4.72</td>
<td>1.36</td>
<td>.97</td>
</tr>
<tr>
<td>Quality of Relationship (LMX-7)</td>
<td>5.10</td>
<td>1.32</td>
<td>.94</td>
</tr>
<tr>
<td>Quality of Relationship (Q8)</td>
<td>4.57</td>
<td>1.67</td>
<td>--</td>
</tr>
</tbody>
</table>

capturing in-group and out-group differentiation among subordinates. The question read, "In comparison to other coworkers in my work unit, I consider myself to be a member of my supervisor's in-group/inner-circle."

The table shows the participants' assessments of self-efficacy, performance feedback, and quality of exchange relationship were relatively high, as compared to the midpoint of a 7-point scale (4). The standard deviation of self-efficacy was fairly low, suggesting that participants were responding in a similar manner and there wasn't much variability in levels of efficacy among respondents.
An interesting finding with the entire quality of exchange relationship scale (both LMX-7 and question 8) was that the means were greater than the midpoint of the scale and participants' responses were negatively skewed. This is important to note because many of the participants were responding that they had high quality relationships with their supervisors. As a result, there may have been a restriction in range in terms of capturing differences in high and low quality exchange relationships.

A correlational approach was adopted to test the proposed hypotheses, which examined the interrelationships among the three main variables. An alpha level of $p = .05$ was used for all statistical tests. Table 2 shows the intercorrelations among the variables subordinate self-efficacy, performance feedback, and quality of exchange relationship. Hypothesis 1 proposed a positive correlation between the quality of supervisor-subordinate exchange relationship and subordinate self-efficacy. This hypothesis was not supported. As a result, the proposed mediation model investigating the role of performance feedback as a mediating variable in the indirect link between exchange relationship quality and subordinate self-efficacy could not be tested because it would first
Table 2

Intercorrelations Among Self-Efficacy, Performance Feedback, and Quality of Relationship Scales

<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-Efficacy</td>
<td>--</td>
<td>.28*</td>
<td>.18</td>
</tr>
<tr>
<td>2. Performance Feedback</td>
<td>--</td>
<td></td>
<td>.70**</td>
</tr>
<tr>
<td>3. Quality of Relationship (LMX-7)</td>
<td>--</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

require that the latter two variables be correlated. Since this requirement was not fulfilled, it was not necessary to carry out the mediation analysis and test Hypothesis 4.

In support of Hypothesis 2, there was a significant positive correlation between the quality of supervisor-subordinate exchange relationship and performance feedback provided by the supervisor ($r = .70$, $p < .01$, $r^2 = .49$). In other words, higher quality exchanges were associated with higher levels of performance feedback, and lower quality exchanges were associated with lower levels of performance feedback.

Hypothesis 3 tested for a positive relationship between performance feedback provided by the supervisor
and subordinate self-efficacy. This hypothesis was also supported \( (r = .28, p < .05, r^2 = .08) \) with a medium effect size. Accordingly, higher levels of performance feedback were associated with higher levels of self-efficacy in subordinates. Lower levels of feedback were associated with lower levels of self-efficacy in subordinates.

Additional analyses were performed on the three main variables and demographic variables. All of the demographic variables had some degree of missing data: Age = 2, Gender = 1, Ethnicity = 3, Level of Education = 2, Months/Years at Organization = 10, Months/Years with Supervisor = 10, and Months/Years in Position = 10. Univariate Analysis of Variance of the demographic variables with each of the three main variables showed differences in race lead to differences in exchange relationship quality \( (F(4,72) = 3.53, p < .05) \) and levels of performance feedback \( (F(4,72) = 3.36, p < .05) \). For both of these scales, African Americans had lower exchange relationship quality (2.67) and levels of performance feedback (2.26) than those with Caucasian, Hispanic, or Asian ethnic backgrounds. Table 3 shows the means for each of these groups. Because the sample size for the African American population was so small, definitive
Table 3
Means for Ethnicity on Performance Feedback and Quality of Relationship Scales

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Scale</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Performance Feedback</td>
<td>Quality of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>Caucasian</td>
<td>4.76</td>
<td>57</td>
<td>5.14</td>
</tr>
<tr>
<td>African American</td>
<td>2.26*</td>
<td>3</td>
<td>2.67*</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5.31</td>
<td>6</td>
<td>5.31</td>
</tr>
<tr>
<td>Asian</td>
<td>4.88</td>
<td>9</td>
<td>5.37</td>
</tr>
<tr>
<td>Other</td>
<td>5.57</td>
<td>2</td>
<td>6.36</td>
</tr>
</tbody>
</table>

*During an ANOVA test, the mean scores for African American participants were significantly different from other participant groups at a p < .05 significance level.

Conclusions could not be drawn from this data set.

Correlations were also calculated between the subdimensions of the performance feedback scale and the variables quality of exchange relationship and subordinate self-efficacy. Table 4 summarizes the intercorrelations among these variables. The dimensions specified in the construction of the performance feedback scale were as follows: positive/negative valence (questions 1, 6, 9, and
Table 4

Intercorrelations Among the Subdimensions of Performance Feedback (1-4), Self-Efficacy, and Quality of Relationship Scales

<table>
<thead>
<tr>
<th>Subdimension/Scale</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Valence (+/-)</td>
<td>.87**</td>
<td>.86**</td>
<td>.88**</td>
<td>.27*</td>
<td>.69**</td>
</tr>
<tr>
<td>2. Timeliness</td>
<td>--</td>
<td>.87**</td>
<td>.89**</td>
<td>.21</td>
<td>.65**</td>
</tr>
<tr>
<td>3. Amount/Frequency</td>
<td>--</td>
<td>--</td>
<td>.89**</td>
<td>.31**</td>
<td>.66**</td>
</tr>
<tr>
<td>4. Content/Specificity</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>.24*</td>
<td>.67**</td>
</tr>
<tr>
<td>5. Self-Efficacy</td>
<td>--</td>
<td>--</td>
<td></td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>6. Quality of Relationship</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

14), timeliness (questions 4 and 13), amount/frequency (questions 3, 7, 11, and 12), and content/specificity (questions 2, 5, 8, and 10). All performance feedback subdimensions were significantly correlated with each other and with the quality of exchange relationship scale (p < .01). Each of the subdimensions, except for timeliness, was also correlated with the self-efficacy scale (p < .05).

Table 5 highlights another interesting finding with the correlations between the eighth question (Q8) on the
### Table 5

**Intercorrelations Among Question 8 (Q8) on the Quality of Relationship Scale and the Entire Scales for Self-Efficacy, Performance Feedback, and Quality of Relationship (LMX-7)**

<table>
<thead>
<tr>
<th>Scale</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality of Relationship (Q8)</td>
<td>.10</td>
<td>.50**</td>
<td>.78**</td>
</tr>
<tr>
<td>2. Self-Efficacy</td>
<td>--</td>
<td>.28*</td>
<td>.18</td>
</tr>
<tr>
<td>3. Performance Feedback</td>
<td>--</td>
<td>--</td>
<td>.70**</td>
</tr>
<tr>
<td>4. Quality of Relationship (LMX-7)</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

quality of exchange relationship scale and each of the three main variables. As expected, the LMX-7 scale was highly correlated with this question and the performance feedback scale was moderately correlated, both at a p < .01 significance level. However, the self-efficacy scale was not significantly correlated.

Other additional analyses included correlating the three main variables with some of the demographic variables (age and months/years with the organization, current supervisor, and in the current position), correlating the individual LMX-7 (quality of exchange
relationship) items with the averaged scores from the self-efficacy scale, and testing whether gender moderates the relationship between quality of exchange relationship and subordinate self-efficacy. These analyses were not significant.
CHAPTER FOUR

DISCUSSION

Summary

Researchers have suggested that the quality of exchange relationship between a supervisor and subordinate strongly influences a variety of important work-related attitudes and behaviors. One variable in the literature that has demonstrated importance in the work environment is self-efficacy, or beliefs one has about his or her own capabilities to perform various activities and tasks (Bandura, 1986). Past studies have linked self-efficacy to important organizational outcomes, such as job performance, motivation, productivity, and job satisfaction. Because supervisors play an integral role in properly constructing a work environment that facilitates high levels of these organizational outcomes, the present study examined the potential effects of supervisor-subordinate exchange relationship quality on subordinate self-efficacy in the workplace.

It is also commonly accepted that individuals seek out information from their surrounding environment to provide themselves with clues about how they are
performing. One possible avenue for receiving information about performance on the job is through one’s supervisor. Supervisors can provide subordinates with the proper motivation, direction, guidance, and corrective information to achieve higher levels of performance. Consequently, the present study examined the relationship between performance feedback and the quality of supervisor-subordinate exchange relationship. Because self-efficacy is also considered to be an important factor in achieving desired levels of performance, the relationship between performance feedback provided by the supervisor and subordinate self-efficacy was also examined.

Hypothesis 1 tested the correlation between the quality of supervisor-subordinate exchange relationship and subordinate self-efficacy. This hypothesis was not supported. Because the variables in Hypothesis 1 were not related, the mediation model proposed in Hypothesis 4, which investigated the role of performance feedback as a mediating variable in the indirect link between exchange relationship quality and subordinate self-efficacy, could not be tested.
Although there was no support for the first hypothesis, the present study offered a unique contribution to the research based on the findings with the performance feedback variable. There were significant positive correlations between exchange relationship quality and performance feedback \( (r = .70, p < .01, r^2 = .49) \) and self-efficacy and performance feedback \( (r = .28, p < .05, r^2 = .08) \). This suggests that while it is possible that performance feedback does not mediate the quality of exchange relationship in this study, it is nonetheless, a critical subcomponent of exchange relationship quality. Performance feedback is also an important variable that contributes to self-efficacy.

There are several possible explanations for why the direct link between exchange relationship quality and subordinate self-efficacy could not be established. These explanations also highlight some of the limitations of the present study. First, most of the participants reported having high quality relationships with their supervisors, as evidenced by the high mean for the quality of exchange relationship scale. They also reported having high levels of self-efficacy, as evidenced by the negative skew of this scale. As a result, both variables may have been
restricted in range in terms of capturing differences in exchange relationship quality and levels of self-efficacy.

Although the logic behind the first hypothesis may be correct, because there was very little variation in exchange relationship quality and self-efficacy, a link could not be established between them. If more participants had reported lower quality relationships or lower levels of self-efficacy, perhaps a significant relationship would have emerged. It is possible that there was a self-selection for higher quality relationships, in that only participants belonging to their supervisor’s in-group returned their surveys. Past studies have suggested that these in-group members have higher levels of self-efficacy and that out-group members have lower levels of self-efficacy.

Second, Leader-Member Exchange (LMX) theory has been suspect of numerous conceptual weaknesses. It has been suggested that a number of variables are important in determining which subordinates are selected into a supervisor’s in-group. However, very little research has been conducted on how the selection and role-making process occurs in the first place. Also, there is so much variation in leader-member exchanges because each leader
has a different concept of what leadership entails and they differ greatly in terms of their personal approaches to leadership that they choose. LMX theory fails to address which components of leadership are most effective in establishing successful leader-member interactions (Yukl, 1998).

Finally, since leadership entails such a wide range of components, it is hard for any scale to capture them all. When considering exchange relationship quality, LMX-7 encompasses very general elements of the exchange. It is also important to take into consideration that many things in the workplace contribute to the self-efficacy of subordinates and that leadership variables represent only way to influence levels of self-efficacy. Therefore, the present study may not have been able to establish a significant correlation between exchange relationship quality and subordinate self-efficacy because the measure was not tapping into the aspects of leadership for which we were testing. Nonetheless, the quality of exchange relationship may still play an influential role in determining levels of self-efficacy.

In addition to the conceptual weaknesses associated with the LMX measure, there are a couple of other
limitations to the present study. Because of its
correlational design, definitive causal statements cannot
be made about the results, which leaves them open to
multiple interpretations. Also, because of the volunteer
nature of this study, there is no way of knowing what
motivated the employees in this sample to participate or
how their choice to participate might have impacted the
findings. The study should also be conducted across a
variety of industries, organizations, and occupations to
improve generalizability.

Implications

From an organizational perspective, there are a
number of practical implications for professionals and
practitioners based on the present study. To begin with,
past research has not examined the role of performance
feedback in the relationship between exchange quality and
self-efficacy. In this context, the present findings
broaden the scope of the research on these three
variables. Both exchange relationship quality and self-
efficacy were positively correlated with performance
feedback. This finding is important because it
contributes to our identification of a supervisory
behavior that is effective in fostering not only high quality work relationships, but can also be used as a motivational and directional tool to attain higher levels of self-efficacy and, thus, performance on the job.

This finding also highlights prescriptives for supervisors as to why it is important for them to offer ongoing performance feedback to their subordinates. By clarifying roles, directing behavior, and keeping it in course with appropriate goal-directed activities, supervisors are able to help subordinates experience success on the job. In turn, this facilitates the development of job-related skills and confidence, and is ultimately a direct determinant of subordinate self-efficacy.

Supervisors should be instructed on the importance of developing high quality relationships with subordinates and on the impact they can have in shaping the ultimate nature of these relationships. Supervisors should also be encouraged to structure exchanges to ensure they are maximizing the potential of all members of their work groups. This may have a significant impact in the work setting, as there is a higher probability of increasing desirable organizational behaviors with increases in
exchange quality. Some researchers have successfully developed LMX training interventions, which are effective in producing significant gains in exchange relationship quality, productivity, dyadic loyalty, job satisfaction, and the motivating potential of the job (Graen, Novak & Sommerkamp, 1982; Scandura & Graen, 1994). Performance feedback should be incorporated into these training interventions as an additional way to improve interactions, communication, and support between supervisors and subordinates.

A unique contribution of the present study is based on the performance feedback questionnaire. Consistent with past literature, performance feedback was related to subordinate self-efficacy. This study highlights the role of the supervisor in this relationship. Based on the current literature in the performance feedback field, there are poor measures associated with the link between quality of exchange relationship and performance feedback in the work environment. However, the internal consistency reliability of the performance feedback scale developed for the present study was $\alpha = .97$. Therefore, with future validation, this questionnaire could contribute to the performance feedback literature as
another measure of subordinates' perceptions of performance feedback from their supervisors. The questionnaire may also be used as a tool in future studies conducted in the work environment to help strengthen the link between subordinates' perceptions of performance feedback from their supervisors and other work-related variables.

The findings of the present study suggest areas in which future research is needed. One of the most critical deficiencies is our understanding of LMX theory. More research is needed in this area concerning this theory's conceptual weaknesses, such as the ways exchange relationship quality varies between supervisor-subordinate dyads and on the outcomes that result from this variance. Also, because many leadership strategies and behaviors have the potential to play an integral role in the development of subordinate efficacy expectations, the relationship between these variables should be investigated further to illuminate the role that supervisors have on subordinate self-efficacy. Little attempt has been made by previous researchers to understand these strategies. Finally, as previously
noted, the performance feedback scale developed in the present study needs to be validated so that it can possibly be used by future researchers.

In summary, a major objective of the present study was to find evidence supporting a link between the quality of supervisor-subordinate exchange relationship and subordinate self-efficacy. Although a direct link could not be established between these two variables, the present study successfully demonstrated the importance of performance feedback in relation to both exchange relationship quality and subordinate self-efficacy. Because supervisor-subordinate interactions and self-efficacy have both been found to impact the bottom line for organizations in terms of success, the findings of the presents should be taken into consideration by future supervisors to ensure they are forming effective relationships with all subordinates within their work units. As this study demonstrates, the provision on performance feedback can be used as a valuable tool by supervisors in allowing subordinates to achieve their goals in the work environment.
APPENDIX A

INFORMED CONSENT
INFORMED CONSENT

I would like to invite you to participate in an academic study being conducted by myself, Kimberly Koller, under the supervision of Dr. Janelle Gilbert, Professor of Psychology. This study has been approved by the Psychology Department Human Participants Review Board of California State University, San Bernardino. The purpose for conducting this research is twofold. First, the responses you provide will be used during the data collection stage of the thesis project on which I am working. The successful completion of a thesis serves as a culminating experience and requirement in obtaining my Master’s degree in Industrial/Organizational Psychology. Second, the results of this study will benefit measurement science by helping other researchers and work professionals gain a better understanding of various job-related attitudes, behaviors, and interactions within an organizational setting. Your participation in this research is extremely valuable.

I am requesting that you volunteer approximately 10 minutes of your time by completing and returning the attached survey. Please realize that your participation in this research is completely voluntary and anonymous. Furthermore, because it is being conducted for academic reasons, your participation will in no way directly impact you or your organization. Several precautions have been taken to ensure the confidentiality of your responses. To begin with, we will not ask you for your name or any other identifying information. Second, no one else from your organization is permitted to see the information you provide. Third, when returning the completed survey, you will place it in a sealed envelope with a sticker over the seal. Finally, the data will be analyzed and reported at the group level only, rather than by individual responses.

Although there are no foreseeable risks associated with your participation, you are free to withdraw from the research at any time during the completion of the questionnaire. If you have any personal concerns or questions about the study, or would like to receive a report of the results, please contact Kimberly Koller at (909) 880-5587. Should you decide to participate in this study, California State University, San Bernardino requires that you give your consent to the following statement:

By placing a mark in the space provided below, I acknowledge that I have been informed of, and understand, the nature and purpose of this study, and I freely consent to participate. By this mark I further acknowledge that I am at least 18 years of age.

Give your consent to participate by making a check or ‘X’ mark here: __________

Today’s date is __________
QUESTIONNAIRE

Instructions:
1. Please complete the following Questionnaire and Demographic Information sheet.
2. Read and keep the Debriefing Statement for your personal records.
3. Place the check-marked and dated Informed Consent/Cover Letter sheet, the Questionnaire, and the Demographic Information sheet into a sealed envelope and put the enclosed sticker over the seal of the envelope.
4. Return the survey through inter-office mail to Kimberly Koller at mail code TDA 435 R.

Part I: Listed below are a number of statements which could be used to describe the interactions you have with your current, immediate supervisor. Please indicate how closely each statement approximates how you feel, based on the following scale:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Mildly Disagree</td>
<td>Neutral</td>
<td>Mildly Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

Respond by writing a number on the blank line beside the statement.

1. ______ Regardless of how much power he/she has built into his/her position, my supervisor would be personally inclined to use his/her power to help me solve problems in my work.
2. ______ I can count on my supervisor to “bail me out,” even at his or her own expense, when I really need it.
3. ______ My supervisor understands my problems and needs.
4. ______ My supervisor recognizes my potential.
5. ______ My supervisor has enough confidence in me that he/she would defend and justify my decisions if I were not present to do so.
6. ______ I usually know where I stand … I usually know how satisfied my manager is with me.
7. ______ I would characterize the working relationship I have with my supervisor as extremely effective.
8. ______ In comparison to other coworkers in my work unit, I consider myself to be a member of my supervisor’s in-group/inner-circle.

Part II: Think about your ability to do the tasks required by your job. When responding to the following statements, answer in reference to your own personal work skills and ability to perform your job. Please indicate how closely each statement approximates how you feel, based on the following scale:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Mildly Disagree</td>
<td>Neutral</td>
<td>Mildly Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

Respond by writing a number on the blank line beside the statement.

1. ______ I have confidence in my ability to do my job.
2. ______ There are some tasks required by my job that I cannot do well.
3. _____ When my performance is poor, it is due to my lack of ability.
4. _____ I doubt my ability to do my job.
5. _____ I have all the skills needed to perform my job very well.
6. _____ Most people in my line of work can do this job better than I can.
7. _____ I am an expert at my job.
8. _____ My future in this job is limited because of my lack of skills.
9. _____ I am very proud of my job skills and abilities.
10. _____ I feel threatened when others watch me work.

**Part III:** Listed below are a number of statements pertaining to feedback that you may or may not receive from your immediate supervisor concerning your job performance. Please indicate how closely each statement approximates how you feel, based on the following scale:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Mildly Disagree</th>
<th>Neutral</th>
<th>Mildly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
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</table>

Respond by writing a number on the blank line beside the statement.

1. _____ My supervisor compliments me when I do my job well.
2. _____ My supervisor makes it perfectly clear to me how well he/she thinks I am performing my job.
3. _____ My supervisor rarely provides me with feedback about my job performance.
4. _____ I receive immediate feedback from my supervisor concerning my performance on work assignments.
5. _____ My supervisor provides me with information about how I am progressing toward my work objectives.
6. _____ My supervisor provides me with constructive feedback when he/she is unhappy or dissatisfied with my work.
7. _____ My supervisor provides me with very few clues about how I am performing.
8. _____ I receive evaluative feedback from my supervisor about the quality of work I have completed.
9. _____ If I am doing a good job at work, my supervisor lets me know when he/she is satisfied.
10. _____ My supervisor provides me with feedback concerning how well I am meeting the requirements of my job.
11. _____ My supervisor often lets me know how well he/she thinks I am doing my job.
12. _____ I receive a considerable amount of feedback from my supervisor concerning my work performance.
13. _____ My supervisor does not provide me with timely feedback regarding my performance on assignments.
14. _____ My supervisor uses constructive feedback to let me know when my performance needs improvement on the job.
DEMOGRAPHIC INFORMATION

Please answer each general information question listed below.

1. Your Age in Years: ______

2. Gender:
   ____ Male
   ____ Female

3. Race or Ethnicity (please check one):
   ____ White
   ____ Black
   ____ Hispanic
   ____ Asian
   ____ Other

4. Highest Level of Education Completed (please check one):
   ____ Some High School
   ____ High School Diploma/GED
   ____ Some College
   ____ Associate’s Degree
   ____ Bachelor’s Degree
   ____ Master’s Degree
   ____ Doctorate/Ph D.

5. Please indicate the number of months/years you have worked at this organization: ______

6. Please indicate the number of months/years you have spent working for your current, immediate supervisor: ______

7. Please indicate the number of months/years you have held your current position: ______
APPENDIX D

DEBRIEFING STATEMENT
DEBRIEFING STATEMENT

PLEASE DETACH AND KEEP

We thank you for your willingness to participate in this study. At this time we would like to further explain the purpose of our research. The quality of exchange relationship between a supervisor and subordinate has been found to impact a variety of organizational attitudes and behaviors. As self-efficacy, or beliefs one has about his or her own capabilities to perform various work-related activities, has been shown to affect important outcomes on the job, this study is examining the potential effects of supervisor-subordinate exchange relationship quality on subordinate self-efficacy. Furthermore, various studies have investigated the role of performance feedback in the development of efficacy expectations as well as a component in supervisor-subordinate interactions. Consequently, this study is also examining job performance feedback provided by the supervisor as a possible intermediary step linking supervisor-subordinate relationship quality and subordinate self-efficacy.

To ensure the validity of the study, please do not discuss the details of the questionnaire with other potential participants. If your participation has raised any personal concerns that you would like to discuss with someone, please contact the California State University Counseling Center at (909) 880-5040. If you have any other questions or would like a copy of the results reported in group form, you may contact Kimberly Koller at (909) 880-5587. Results will be available in July 2001.

You may remove and keep this page. Thank you for your participation.
REFERENCES


