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# LMX dyad agreement: construct definition and the role of supervisor/subordinate similarity and communication in understanding LMX

Barbara Dale Minsky

*Louisiana State University and Agricultural and Mechanical College*

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**LMX DYAD AGREEMENT:  
CONSTRUCT DEFINITION AND THE ROLE OF  
SUPERVISOR/SUBORDINATE SIMILARITY AND COMMUNICATION IN  
UNDERSTANDING LMX**

A Dissertation  
Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor in Philosophy

In

The Interdepartmental Program in Business Administration

By  
Barbara Dale Minsky  
B.A., Brooklyn College, CUNY, 1968  
M.S., Brooklyn College, CUNY, 1971  
M.B.A., University of Tennessee, Chattanooga, 1994  
December 2002

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## **Abstract**

Much LMX research is predicated upon the assumption that the quality of the supervisor-subordinate relationship is predictive of important organizational and individual outcomes. I propose, however, that leader-member agreement in perception about the nature of the relationship as well as the type of relationship itself is important. I have identified and examined some of the theoretically relevant determinants of leader and member perceptual agreement regarding the nature of their LMX relationship. I hypothesized that relational demography, values, perceived similarity, communication, feedback, and role clarity are related to LMX perceptual agreement. Data was collected through surveys personally administered to employees at four companies in the Southeast. All employees completed the same survey which included measures of LMX, values, perceived similarity, communication, feedback, and role clarity. Supervisors then completed an additional survey that included measures of the supervisors' perceptions of their LMX relationships, their perceived similarity with subordinates, and feedback solicitation with specific subordinates. Supervisor and subordinate responses were matched. Additionally, because of the controversy regarding the use of difference scores as a means to investigate agreement variables, perceptual agreement was not defined as a difference score. My dependent variable, LMX agreement, was examined using multivariate multiple regression analysis by looking at each of its components (LMX and SLMX) and their relationship to each other and to the independent variable(s). The results provide evidence that communication is a key aspect of perceptual agreement. There is support for several of the communication and feedback hypotheses. This dissertation makes several contributions to the leader-member exchange, perceptual

agreement, and communication literatures. Direction for future research, study limitations, and implications of the findings for research and practice are discussed.

## **Chapter 1: The Dissertation Topic**

### Introduction

Do leaders make a difference? Though people in the business world generally agree that they do, academicians are not so sure (Meindl, Ehrlich, & Dukerich, 1985). There are a number of leadership theories, and we are still conducting research to determine the roles played by leaders, managers, followers, etc. Leader-member exchange (LMX) theory is one leadership theory that continues to attract considerable attention (e.g., Gerstner & Day, 1997; House & Aditya, 1997). LMX, first known as vertical-dyad linkage theory, was initially presented by Dansereau, Cashman, and Graen (1973). Unlike the prevailing leadership theories of the day that contended leaders have a predominant leadership style and tend to treat all their followers in a similar fashion, LMX theory asserted that there is a unique exchange relationship between individual followers (subordinate) and their leaders (supervisor). LMX posits an informally developed role, one that is negotiated between individual followers and their leaders (Graen & Scandura, 1987).

LMX is an important topic to investigate because it helps explain key organizational outcomes (Gerstner & Day, 1997). A better understanding of the LMX construct may lead to improved supervisor/subordinate relationships and thence to improved organizational outcomes. Researchers have found LMX to be positively related to organizational commitment (Basu & Green, 1997; Duchon, Green, & Taber, 1986), job satisfaction (Graen & Cashman, 1975; Graen, Novak, & Sommerkamp, 1982; Lagace, 1990; Scandura & Graen, 1984), supervisor satisfaction (Duchon et al., 1986; Lagace, 1990), work productivity and performance (Graen et al., 1982; Liden & Graen, 1980;



Liden, Wayne, & Stilwell, 1993; Scandura & Graen, 1984; Vecchio & Gobdel, 1984; Vecchio & Norris, 1996), and inversely related to turnover intentions (Jackson, Brett, Sessa, Cooper, Julin, & Peryronnin 1991; Scandura & Graen, 1984; Vecchio & Norris, 1996).

LMX uses exchange theory to describe the relationship that develops between supervisors and each of their subordinates. Two major types of exchange have been identified and labeled (Dansereau, Graen, & Haga, 1975): low quality LMX (or out-group relationship) and high quality LMX (or in-group relationship). Low quality LMX is characterized as an exchange between a supervisor and subordinate limited to that defined by an employment contract. Supervisors, employing formal organizational position power, provide subordinates with the standard organizational benefits while subordinates comply with their formally defined job requirements and follow legitimate supervisor requests (Graen & Cashman, 1975). In contrast, high quality LMX is characterized as an exchange of both material and non-material goods beyond those identified in an employment contract. This relationship usually includes higher levels of mutual trust and loyalty, comfortable communication, and bi-directional influence (Dienesch & Liden, 1986). This distinction (between out-group and in-group exchanges) parallels that between economic and social exchanges described by Blau (1964). Economic exchanges are more contract-based and require specific compensation for performing a task, whereas social exchanges are based on informal assurances that gestures of goodwill and mutual support will be reciprocated at a future date (Noorderhaven, 1992).

Researchers have frequently used the terms “contractual” and “extra-contractual” to characterize the “low quality” and “high quality” positions on a continuum of LMX relationships (e.g., Liden et al., 1993). Because there is a negative connotation to the terms “low quality” and “out-group,” it might be more appropriate to use value-neutral terms that indicate there are subordinates who have “contractual relationships” with their supervisors and others who have “extra-contractual relationships” with their supervisors. This more neutral terminology better lends itself to the proposition that either type of relationship may be effective and rewarding.<sup>1</sup>

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<sup>1</sup> It appears to be a long-standing practice that the terms *low quality*, *outgroup*, *supervision*, *employment contract*, *economic exchange*, and *contractual relationship* are all used as synonyms in opposition to the terms *high quality*, *ingroup*, *leadership*, *psychological contract*, *social exchange*, and *extra-contractual relationship* (e.g., Dansereau, Graen, & Haga, 1975; Liden & Graen, 1980; Liden et al., 1993). Careful scrutiny of extant LMX measures does not convince me that the contractual versus extra-contractual characterization is reflected by the items in any of these measures. Therefore, though I find this opposition of contractual versus extra-contractual relationships attractive, the measures themselves preclude both the distinction between extra-contractual and contractual, and the claim that contractual relationships may be just as rewarding and effective as the extra-contractual relationships. In this dissertation, however, I am interested in the antecedents to agreement about perceptions of the nature of LMX relationships (as defined and measured in the literature) rather than in the relationship between agreement and outcomes. Therefore, though I prefer the more value-

The LMX relationship itself is best described as a continuous rather than a dichotomous variable (Kim & Organ, 1982; Lagace, 1990). At one end of a LMX continuum are purely contractual supervisor-subordinate relationships where both parties follow formal rules, policies, and procedures. Kim and Organ (1982) described this type of relationship as one in which “exchange is actually between each party and the organization, accepting organizationally prescribed roles in exchange for inducements offered by the organization” (p. 79). At the other end of the continuum are supervisor-subordinate relationships that encompass friendship, and where the distinction between job duties and interpersonal relationships is blurred. Kim and Organ (1982) referred to this end of the continuum as “noncontractual social exchange” and posited that “trust, rather than a contractual quid pro quo, characterized the relationship” (p. 79). Unfortunately, even though most studies discuss LMX as a continuous variable, it is most often examined as a categorical variable (e.g., Cogliser, Schriesheim, Scandura, & Neider, 1999 examined LMX as a categorical variable). This prevailing practice risks loss of information and consequent distortion of associated findings.

#### Statement of the Problem

Much LMX research is predicated upon the assumption that the quality of a supervisor-subordinate relationship is predictive of important organizational and individual outcomes, including attitudinal and performance outcomes as noted above (Gerstner & Day, 1997). I propose, however, that it is agreement in perception about the nature of the relationship, as well as the nature of the relationship itself, that is important.

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neutral terms, I use the traditional LMX verbiage of “higher” and “lower” when presenting hypotheses and discussing the results of data analyses.

LMX agreement occurs when both members of a dyad describe the nature of their LMX relationship in the same terms. Recent empirical investigation (Cogliser et al., 1999) supports the proposition advanced by theorists such as Gerstner and Day (1997) and Scandura (1999) that agreement between supervisor and subordinate about the nature of their LMX relationship is a significant factor in determining favorable organizational and individual outcomes. For example, I believe agreement in and of itself is likely to be important for outcomes such as subordinate performance. Agreement might indicate consistency in how the supervisor and subordinate approach their working relationship, and this consistency would help facilitate the subordinate's performance by coordinated actions that facilitate performance.

Cogliser et al. (1999) looked at the relationship between supervisors' and subordinates' agreement regarding the nature of their LMX relationship and the individual subordinate outcomes of performance, organizational commitment, and job satisfaction. They described four different types of leader-member exchange in terms of balance. When both dyad members agree about the nature of their LMX relationship, it is either "balanced/in-group" or "balanced/out-group." When dyad members disagree about the nature of their LMX relationship it is considered an unbalanced relationship and is referred to as either "overinvestment" (supervisor places it on the contractual end and subordinate on the extra-contractual end of the continuum) or "underinvestment" (supervisor considers the relationship extra-contractual and the subordinate considers it contractual). Cogliser et al. (1999) found the most positive subordinate outcomes with the balanced/in-group and the least positive with the balanced/out-group. The two unbalanced relationships had intermediate outcomes: Subordinates in the

underinvestment category had higher performance, organizational commitment, and job satisfaction than subordinates in the overinvestment category. Because agreement has been found to have definite organizational and individual outcomes, it is important to determine why some dyads view the relationship similarly whereas other dyads have differing perceptions.

Many measures have been used to assess the nature of the LMX relationship (Gerstner & Day, 1997), and several prior studies that have assessed LMX from both perspectives used different measures for ascertaining supervisor and subordinate perceptions. Of the over 100 studies of LMX to date, only 15 published studies were found that assessed LMX from both perspectives. Table 1 lists these 15 studies.

Unfortunately most of these studies did not assess agreement as to the nature of the LMX relationship by having supervisors and each of their subordinates complete the respective versions of the same measure (e.g., LMX-7 and SLMX-7). Recent research indicates that "...rating judgments are biased because of the contextual effects" (p. 483, Dalal, 2001). These contextual effects include factors such as the type of measure, the number of items, the number of category points, the frame within which one views the stimulus, and the perspective of the individuals responding to the survey. Method variance is also an issue because different measurement methods can demonstrate statistically significant methods bias. Additionally, because these measures have all been self-reports, there is the possibility of social desirability bias (Gardner, Cummings, Dunham, & Pierce, 1998). Because it is quite possible that by using different measures, different constructs were gauged, I posit that a preferred operationalization of agreement would be that dyad members' perceptions be tapped using the same, or at least parallel, measures.

Table 1

Studies assessing LMX from both supervisors' and their subordinates' perspectives

Author(s)	Year Published
Cogliser, Schriesheim, Scandura, & Neider	1999
Dansereau, Cashman, & Graen	1973
Deluga & Perry	1994
Dockery & Steiner	1990
Ferris	1985
Graen, Liden & Hoel	1982
Graen & Schiemann	1978
Liden, Wayne & Stilwell	1993
Phillips & Bedeian	1994
Rosse & Kraut	1983
Scandura, Graen & Novak	1986
Scandura & Schiresheim	1994
Vecchio	1995
Wayne & Green	1993
Wilhelm, Herd, & Steiner	1993

Scandura (1999) asserted that examining multiple perspectives would lead to a fuller understanding of the implications of agreement and disagreement about the types of LMX relationships. She suggested that to understand the implications of perceptual

agreement and disagreement more fully, data from both supervisors and subordinates be collected to determine whether perceptions are shared. And, in fact, because correlations between supervisor and subordinate perceptions of LMX have been fairly low, it appears that these perceptions are not, for the most part, shared perceptions. Gerstner and Day's (1997) meta-analysis found a mean sample-weighted correlation of .29 (.37 when corrected for unreliability). The percent of variance explained is 13.7%, and this represents a moderate effect size in meta-analyses.

The unexpectedly moderate correlation between dyad member perceptions of the nature of their LMX relationship led Gerstner and Day (1997) to state that "leader-member agreement should be examined as a relevant independent or dependent variable" (p. 835) and that "leader-member LMX agreement is an interesting and potentially valuable outcome variable in its own right" (p. 837). Neither Scandura (1999) nor Gerstner and Day (1997), however, presented arguments as to why agreement was expected or desired. It would seem reasonable to expect lack of agreement because "individuals and managers can have decidedly nonmutual perceptions of the nature of their relations, the exchanges made, and their obligations to each other" (Rousseau, 1997, p. 153). Gerstner and Day (1997) compared the lack of agreement about the nature of the LMX relationship to the lack of agreement in performance appraisal research found by Harris and Schaubroeck (1988): "The low correlation between leader and member LMX is consistent with meta-analytic research on self-supervisor agreement on performance ratings" (p. 828).

As indicated by Gerstner and Day (1997), the performance appraisal literature provides evidence of the importance of leader-member agreement. The current state of

LMX research on dyad agreement is analogous to the performance appraisal situation in the early 1980s, when Wexley and colleagues (Pulakos & Wexley, 1983; Wexley, Alexander, Greenwalt, & Couch, 1980; Wexley & Pulakos, 1983) investigated the relationship of actual similarity, perceptual agreement, and performance appraisals in manager-subordinate dyads and decried the dearth of studies that simultaneously examined the perceptions of both parties. Here, too, there were significant differences between supervisor and subordinate ratings, and there were indications that agreement affected outcomes. For example, one study found a positive relationship between dyad perceptual agreement regarding the description of a manager and subordinate job satisfaction. A positive relationship was also found between dyad perceptual agreement regarding the description of a subordinate and subordinate performance (Wexley et al., 1980). When Harris and Schaubroeck (1988) assessed performance appraisal ratings, their meta-analysis found correlations between self and supervisor ratings to be consistently low. In fact, their results were remarkably similar to the correlations found by Gerstner and Day (1997) .37 for LMX agreement versus .35 for performance appraisal rating agreement.

It is thus critical to assess LMX from both perspectives for two reasons. One, there is a significant difference between supervisor and subordinate reports of LMX relationship type (Gerstner & Day, 1997) and two, a recent study by Cogliser et al. (1999) demonstrated that agreement affects outcomes. A review of the literature, however, suggests that most of the LMX studies during the past 20 years have failed to include both perspectives. Accordingly, many of the studies suggested supervisor-subordinate



perceptual agreement as to the nature of their LMX relationship as an area of future research.

Supervisor-subordinate agreement appears to be a meaningful issue in several areas, and as Cogliser et al. (1999) demonstrated, it is particularly important in terms of the LMX relationship. Consequently, the focus of this dissertation is on leader-member agreement about the nature of their LMX relationship. In particular, as will be explained in detail below, variables that influence whether leaders and members agree about their relationship will be investigated.

### Leadership Theories

Before examining the LMX model in detail, I will briefly review extant leadership theories to show how they differ from LMX theory. All other leadership theories attempt to identify a single most effective leadership style based on the leader, the follower, or the situation. LMX theory fills a niche that the other leadership theories neglect by focusing instead on the relationship between supervisors and subordinates. LMX theorists posit that supervisors develop a unique relationship with each of their subordinates, and that this unique relationship affects organizationally relevant outcomes.

There are several ways in which one can classify leadership theories (Graen & Uhl-Bien, 1995; House & Aditya, 1997). Graen and Uhl-Bien (1995) developed a taxonomy of leadership theories that helps identify commonalities. Their framework is based on the leadership construct itself, that is, upon the three necessary elements of leadership, and has three domains: the leader, the follower, and the leader-follower relationship. Though the domains overlap, the major differences among them are their primary foci and assumptions. Graen and Uhl-Bien (1995) also noted that all three

domains are important and that focusing on one does not diminish the importance of the other two.

The leader-based approach assumes that leadership comes from personal characteristics and behaviors, and that a leader has primary control and responsibility for leadership processes and outcomes. Leadership theories such as trait, behavioral, and situational are examples of this approach (House & Aditya, 1997). Many early studies of leadership focused on identifying the personal traits of leaders and theories were based on the assumption that certain social, physical and/or personal characteristics are inherent in leaders. It was found that though many leaders shared several traits (e.g., drive, motivation, integrity, self-confidence, cognitive ability), not all individuals who had these traits became leaders. After discovering that leaders do not consistently have a uniform set of personal traits, researchers turned to identifying behaviors that were characteristic of effective leaders. These behavioral theories of leadership were based on the assumption that there are distinct differences between the behaviors of effective and ineffective leaders. Behavioral theories focus on leadership styles, and include the Ohio State University studies of consideration and initiating-structure, the University of Michigan studies of production- and employee-centered leadership, Blake and Mouton's Managerial Grid, and transformational versus transactional leadership behaviors (House & Aditya, 1997). Behavioral theories added to the understanding of leadership by shifting the focus from traits (who leaders are) to behaviors (what leaders do).

Leadership behaviors that may be appropriate in one situation are not always appropriate in another situation. This realization led to the development of situational theories: Leader style effectiveness is contingent upon the situation. Contingency theories

focused on the fit between a leader and a situation. They include Fiedler's Least Preferred Co-worker (LPC) model, Hersey and Blanchard's Situational Leadership (SLT) model, and House's Path-Goal model (House & Aditya, 1997). The contingency approach implies that effective leaders do not use a single style. They use many different styles and make adjustments based on the prevailing situation. All of these theories of leadership assume that the burden of responsibility for effective work relationships lies primarily with a leader. More recent investigation, however, has led to the thought that it might be followers who bear the burden of responsibility for effective working relationships.

The follower-based approach assumes that followers have primary responsibility for leadership processes and outcomes. Followers manage their own performance with little dependence on leaders. Examples of this approach include self-management, leadership substitutes, and empowerment (with the leader serving as coach or facilitator).

On the other hand, the leader-follower approach assumes that leadership processes and outcomes emerge from the nature of a leader-follower relationship. Most of the theories in this category are based on the assumption that relationships between followers and their leader are so similar that leader behavior can be thought of in terms of an "average" style across the group as a whole (Schriesheim & Kerr, 1977). LMX builds on the leader-follower relationship, but instead of asserting that leaders have a predominant leadership style and tend to treat all their followers in a similar fashion, LMX proposes a somewhat different focus: the dyadic relationship between leader and follower. As House and Aditya (1997) stated, "the distinguishing feature of LMX theory is the examination of relationships, as opposed to behavior or traits of either followers or leaders. Proponents of the theory argue that the quality of the 'mature' superior-

subordinate dyadic relationships would be more predictive of positive organizational outcomes than traits or behaviors of superiors” (p. 430). The primary distinguishing feature of LMX theory is that it posits a unique relationship between a leader and each of her followers.

### Leader-Member Exchange (LMX) Theory

LMX is a descriptive leadership theory that posits that superior-subordinate relations are sufficiently differentiated and unique to warrant a separate focus on each supervisor-subordinate relationship. Several LMX longitudinal studies (e.g., Graen, 1976; Graen, Cashman, Ginsburg, & Schiemann, 1977) have found that subordinates may differ noticeably in their description of the same leader, and that this difference in description is reflected in differences in the types of leader-member exchange that occur within the same work group. These studies also found that because of individual differences among group members and because of resource constraints, leaders develop close relations with some of their subordinates and more distant relations with others. This results in an “in-group” and an “out-group.” The “in-group” is characterized as having a social exchange or extra-contractual relationship with higher levels of interaction and more support (e.g., Dansereau et al., 1975; Dienesch & Liden, 1986). The “out-group” is viewed as having a more contractual exchange relationship characterized by unidirectional downward influence, less personal interaction, and more role-defined behavior (e.g., Graen & Schiemann, 1978).

As noted above, LMX can be assessed from leader and/or member perspectives (Gerstner & Day, 1997; Scandura, 1999) and several researchers have suggested obtaining comparable descriptions of the relationship from both perspectives (e.g.,

Gerstner & Day, 1997; Scandura, 1999). This procedure would be productive because it has been demonstrated that agreement about the nature of an LMX relationship can predict both organizational and individual outcomes. Though previous research has found relatively little agreement between leader and member perceptions of LMX (Gerstner & Day, 1997), perceptual agreement has been shown to predict valuable organizational and individual outcomes.

### Summary of Chapter 1 and Remaining Chapters

Chapter 1 lays the groundwork for the remaining chapters of this dissertation by highlighting the lack of attention given to supervisor-subordinate perceptual agreement regarding the nature of their LMX relationship and the potential importance of this agreement. It is proposed that it might be useful to array LMX relationships on a continuum of purely contractual supervisor-subordinate relationships to extra-contractual supervisor-subordinate relationships. The theoretical foundation of LMX is summarized. Chapter 2 presents the theoretical and empirical grounds for development of the hypotheses that are presented in this dissertation. In Chapter 2, I draw upon social identity theory to suggest there are six compelling antecedents that may influence the agreement of the leader and member perceptions of the LMX relationship: actual relational demographic similarity, actual work value similarity, perceived similarity, communication, feedback, and role clarity. I develop 10 hypotheses based on these six antecedents. Chapter 3 describes the sample, procedure, and measures used to test the hypotheses. Chapter 3 also includes a discussion about the appropriateness of difference scores and multivariate multiple regression and polynomial regression techniques to calculate and interpret congruence, and I argue the greater usefulness of multivariate

multiple regression and polynomial regression. In Chapter 4, I report my results (including a comparison of the results obtained using difference scores versus results obtained using multivariate multiple regression and polynomial regression). In Chapter 5, I discuss my results, the limitations of this research, what implications this research might have for practice, and what contributions this dissertation makes to the management discipline.

## Chapter 2: Model Development and Hypotheses

### Perceptual Agreement and LMX

This dissertation answers the call for investigations of both leader and member perspectives regarding LMX relationships (Gerstner & Day, 1997; Scandura, 1999). LMX dyad agreement occurs when subordinates and their immediate supervisors concur about the nature of their LMX relationship. My objective in this chapter is to identify some of the most compelling, theoretically relevant antecedents of leader and member perceptual agreement about the nature of their LMX relationship.

Though there have been many conceptual and empirical articles written about LMX in the past 30 years, relatively few empirical studies have looked at both supervisor and subordinate perceptions of the LMX relationship. Three studies (Deluga & Perry, 1994; Dockery & Steiner, 1990; Liden et al., 1993) looked at potential antecedents of the nature of LMX (e.g., performance ratings, ingratiation, ability, upward influence, liking, expectations, demographic similarity, and perceived similarity.) Though all three of these studies measured both leader and member perceptions of the shared LMX relationship, none considered the implications of perceptual agreement. Twelve studies explored potential consequences of the nature of LMX, and though they all measured both leader and member perceptions of their LMX relationship, only one (viz, Cogliser et al., 1999) considered the implications of perceptual agreement.

Because of the relative dearth of empirical studies looking at both supervisor and subordinate perceptions of the LMX relationship, Gerstner and Day (1997) asserted, “empirical support for the relationship between leader LMX and member LMX is equivocal (p. 831).” For example, Wakabayashi and Graen (1984) commented that they

used only the subordinate's perceptions of the relationship because they showed stronger relationships with outcomes and "the explanatory power of supervisor's perception of vertical exchange was insufficient, partly because of relatively low levels of agreement between the two reporters of vertical exchange ... (ranging from the lowest  $r = .13$  to the highest  $r = .37$ )" (p. 605). Correlations of supervisor and subordinate perceptions of the nature of their LMX relationship ranging from .07 to .50 have been reported (Cogliser et al., 1999).

These empirical studies are also interesting in so far as they indicate that there has been no consensus regarding the measurement of congruence of LMX perceptions. These studies used congruence of the perceptions as either independent or dependent variables, and several different approaches to ascertain levels of congruence were employed. Five studies used difference scores to reflect degree of congruence, nine of the studies used the congruence score in correlations, two used profiles, one used polynomial regression, and one used MANOVA. This methodological issue will be discussed in Chapter 3.

Many factors, including individual differences, affect the ways individuals perceive and define their LMX relationships. There is a need to study the individual difference variables associated with LMX perception (Dienesch & Liden, 1986; Duchon et al., 1986; Yukl, 1998). Cogliser et al. (1999) have confirmed there are organizational and individual consequences to LMX perceptual agreement, and this suggests the importance of determining antecedents to these perceptions.

The literature on LMX perceptual agreement is limited. There is, however, a considerable body of literature from the disciplines of psychology and sociology that addresses general perceptual agreement. As is discussed below, this literature suggests



leader/member relational demographic similarity, work value similarity, perceived similarity, communication, feedback-giving and feedback-seeking, and role clarity are variables likely to influence the agreement of leader and member perceptions about the nature of the LMX relationship they share.

#### Antecedents to LMX Agreement

What are the antecedents to LMX agreement? Although there has been consensus in the literature that the LMX relationship is related to important organizational and individual outcomes, there has been little research and testing of theory about the antecedents of LMX (Bauer & Green, 1996). There has been little published research as to LMX perceptual agreement, and there has been no published research about the antecedents of LMX perceptual agreement. Prior research has concentrated on determining the antecedents to extra-contractual LMX relationships. This dissertation attempts to identify some of the relational characteristics that affect LMX agreement.

Below I will look at the roles leader-member similarity and leader-member communication play in understanding perceptual agreement, discuss aspects of social identity and attraction theories in terms of how they relate to both leader-member similarity and communication, and finally, develop a series of hypotheses regarding several similarity and communication variables as potential antecedents to LMX agreement.

#### The Role of Leader/Member Similarity and Communication in Understanding LMX Agreement

To understand perceptual agreement, one can look at the roles played by both leader-member similarity and leader-member communication. Communication can be viewed as having a more proximal, or immediate role, in creating perceptual agreement,

with similarity playing a more distal role. Social psychology research has laid the groundwork for understanding the strong links among shared attitudes, similar demographics, and interpersonal attraction (Deluga, 1998). Schein (1985) suggested that individuals who are similar in attitudes and demographics and who share similar experiences would then tend to have similar interpretations of events and to share a common system of communication. Communication plays an important role in the construction of perceptions and attitudes. “Talk is the crucial ingredient in the construction of attitudes” (Sias, 1996, p. 172). I believe this might also include shared perceptions of the environment. By sharing information and opinions, people construct a consensual understanding of their environment. In fact, the mere act of communicating ideas, opinions, or information makes those ideas, opinions, and information more real to both parties (Berger & Luckmann, 1966).

Because environmental cues help one understand attitudes and reactions in a workplace (Salancik & Pfeffer, 1978), shared perceptions of environmental cues might remove important sources of disagreement about the nature of the LMX relationship between dyad members and further facilitate interpersonal interactions. Schneider (1983, p. 16), however, went one step further than merely asserting that environmental cues are important when he suggested that it is “the similarity of people in the way they construct reality” that leads to similarity in job attitudes and that “relatively similar kinds of people” define settings in a similar fashion. If one applies Schneider’s insight to LMX, one can infer that similar kinds of people define their LMX relationship in similar terms.

### Theories Relating to Leader/Member Similarity

Two specific theories that directly address similarity and perceptual agreement are attraction theory and social identity theory. Attraction theory posits a strong relationship between similarity and interpersonal attraction (Byrne, 1971). Graves and Powell (1995) suggested that social identity grounded in demographics influences the perception of similarity. Consequently, under social identity theory, in any given interaction between two people, both the nature of their interaction and the perception of that interaction will be affected by their actual or perceived memberships in distinct groups. Similarity has also been found to increase the frequency and clarity of communication (Tsui & O'Reilly, 1989).

Attraction theory. The similarity-attraction paradigm (Byrne, 1971) suggests that individuals tend to be attracted to those who are similar to them, and the more similar they are, the more positive the attitudes and beliefs about the other. It has been posited that frequent interactions increase perceptions of similarity, perhaps by allowing people to explore and verify their similarities (Simpson & Harris, 1994). The similarity-attraction paradigm generalizes to demographic characteristics (Judge & Ferris, 1993; Tsui & O'Reilly, 1989). Similarity between individuals on a number of dimensions, such as attitudes, personality, and demographic characteristics, is related to interpersonal attraction and liking (Engle & Lord, 1997). Bauer and Green (1996) have suggested interpersonal attraction and liking are related to the type of the LMX relationship that has been established. LMX theorists (e.g., Dienesch & Liden, 1986; Graen & Cashman, 1975; Liden et al., 1993) have proposed that the degree of compatibility between supervisors and subordinates contributes to the determination of the types of LMX

relationship that are formed. Liden et al. (1993) defined compatibility as both perceived and actual similarity, with actual compatibility defined as similarity in individual and demographic characteristics.

Social identity theory. Social identity theory claims that each individual has an awareness of himself or herself as belonging to a particular group whose members share a common identity (Tajfel & Turner, 1986). A central feature of group behavior is uniformity in both attitudes and behavior (Hogg, 1992). A basic tenet of the theory is that people derive their identity in great part from the social categories (i.e., groups) to which they assign themselves. According to this theory, the two processes driving group behavior are categorization and social comparison (Barnum, 1997; Hogg, Terry, & White, 1995).

Categorization is a cognitive process individuals use to simplify and organize complex environmental states. People are assigned to categories on the basis of similarities and differences with reference to discernable demographic characteristics such as age, gender, race, and are perceived as either belonging to the same category as oneself or belonging to a different category. One outcome of categorization is the accentuation of the similarities within a group and of the dissimilarities between groups. Self-enhancement guides the social categorization process and results in a positive bias towards one's own group (Hogg et al., 1995). Social comparison is a comparison between one's own attitudes, beliefs, and behaviors and those of others. Social comparison is evaluative, and an evaluator demonstrates a positive bias towards her own attitudes, beliefs, and behaviors versus those of others (Hogg et al., 1995).

Social identity theory processes help explain how individuals categorize themselves and others. Under social identity theory, it would appear that supervisors and subordinates who perceive they are members of the same category would regard themselves as being similar to one another. A person's social identity influences how one perceives and treats others. Over time, individuals who consider themselves to be in the same category may develop a shared set of beliefs and values (Hopkins, 1997). Agreement of perceptions ensues (Hogg, 1992). This social identity determines how information is interpreted and often results in common environmental perceptions (Lembke & Wilson, 1998). If we generalize from social identity theory, which proposes that social identity leads to perceptual agreement, leader-member perceived similarity in demographics, attitudes, values and/or beliefs could lead to perceptual agreement about the nature of the LMX relationship.

### Communication

The perceptual agreement that we might expect under social identity theory can be reinforced by communication. Shared perceptions are constructed and refined through communication, and it is through communication that group behavior is usually expressed (Hogg, 1992). Theorists have argued that communication plays a role in the development of attitudes and perceptions of social reality (e.g., Berger & Luckmann, 1966; Salancik & Pfeffer, 1978; Weick, 1969). At the dyad level, similarity facilitates communication (Kanter, 1977). Moreover, it appears that the clearer a communication, the more likely that attitudes toward, and perceptions of, the external reality would be similar. It has also been suggested that agreement can be considered a form of accurate communication (Newcomb, 1956). Consequently, the clearer the communications about

role expectations and standards, the more likely there would be shared perceptions of a LMX relationship.

### Development of Hypotheses

#### Relational Demography: Hypothesis 1

Relational demography is a term coined by Tsui and O'Reilly (1989). They defined it as “the comparative demographic characteristics of members of dyads or groups who are in a position to engage in regular interactions” (p. 403). Relational demography is a measure of how similar or dissimilar the members of a dyad are in terms of demographics. The focus is on patterns of similarity, not on a demographic characteristic itself. That is, it is not whether someone is male or female that matters, but whether both members of the dyad are of the same gender. Additionally, “analysis of demographic effects must consider the full impact of an individual’s demographic profile rather than only one or two demographic characteristics” (Tsui & O'Reilly, 1989, pp. 404-405). Social identity theory suggests, therefore, that the more demographically similar dyad members are across characteristics, the more similar they would also be in their attitudes, beliefs, and perceptions.

Demographically similar individuals are thought to share similar backgrounds and experiences, are more likely to have been treated in similar manners, and are more likely to react to situations similarly (Chatman, Polzer, Barsade, & Neale, 1998). Demographic similarities are believed to increase affect and attraction (Meglino, Ravlin, & Adkins, 1989) and trust (Mayer, Davis, & Schoorman, 1995), which then influence perceptions of LMX. Demographic characteristics themselves do not seem to predict leader-member exchange, but relational demography may (Bauer & Green, 1996; Gerstner & Day, 1997).

### Consequences of Similarity in Relational Demography

Similarities in relational demography may result in a high level of attraction based on similarity in attitudes, values, experiences, and strong communication within a dyad (Byrne, 1971). In this same fashion, it is reasonable to expect that relational demography between a supervisor and subordinate can affect work attitudes and perceptions through interpersonal attraction and the frequency of interactions much more than can simple demographics (Tsui & O'Reilly, 1989).

It has been demonstrated that at the dyad level, relational demographic similarity can have a greater effect on dependent variables than do individual-level characteristics (Liden et al., 1993). Prior research has demonstrated that demographics have significant effects on perceptions, including how supervisors view their subordinates, how subordinates perceive their roles in an organization, and how organizational members interact with one another (e.g., O'Reilly, Caldwell, & Barnett, 1989; Tsui & O'Reilly, 1989; Zenger & Lawrence, 1989). In general, this research suggests that demographic similarity is related to perceptual agreement.

### Structural and Experiential Demographic Variables

Based on theory and previous empirical research, the demographic characteristics I have chosen to investigate are age, gender, race-ethnicity, education level, organizational tenure, and tenure within the dyad. Prior research has indicated that because structural variables such as age, gender, and race are easily detected, measured, and difficult to change, they are often the basis for the way individuals spontaneously categorize one another (Jackson et al., 1995). Additionally, other research has indicated that experiential similarity can be more important than structural similarity (Suitor,

Pillemer, & Keeton, 1995). Education and tenure are examples of proxies for experiential variables. Similarity in education level (Tsui & O'Reilly, 1989) is associated both with language compatibility (which tends to lead to similar conceptions of job requirements and expectations) and similar status and prestige levels. Tenure is often thought of as a basis for a strong cohort effect (Pfeffer, 1983), and within these cohorts there are often shared language and experiences which enable the cohort members to interpret, understand, and respond to information in similar fashion (Zenger & Lawrence, 1989).

Other empirical LMX-relational demographic similarity research found no significant relationships between relational demography and the nature of the LMX relationship (e.g., Green, Anderson, & Shivers, 1996; Liden et al., 1993). The focus of this research, however, was on the type of LMX relationship experienced by one of the dyad members, not on LMX perceptual agreement with respect to a supervisor-subordinate relationship. Therefore, I propose that when looking at LMX perceptual agreement rather than evaluating the nature of that LMX relationship, there will be more consistency in the findings, and that the more similar dyad members are, the greater will be their agreement, concerning their LMX relationship.

Hypothesis 1: The more similar in demographics a supervisor and subordinate are, the more their LMX perceptions will agree.

H1A: More specifically, the more similar in demographics a supervisor and subordinate are, the more favorable the subordinate will perceive the LMX relationship.

H1B: The more similar in demographics the supervisor and subordinate are, the more favorable the supervisor will perceive the LMX relationship.



## Work Value Similarity: Hypothesis 2

Values are standards or criteria for choosing goals or guiding action and are relatively enduring and stable over time. They develop through the influences of culture, society, and personality (Dose, 1997). Once people develop a system of values, it affects many aspects of their life (Meglino & Ravlin, 1998). People tend to perceive external stimuli in ways that are consistent with their value systems (Meglino & Ravlin, 1998). Values reflect both a person's fundamental beliefs about the desirability of behavioral choices and "beliefs about the way an individual ought to behave" (Ravlin & Meglino, 1987, p. 155). A "value system [is] an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance" (Rokeach, 1973, p.5). Values help us define who we are and what we are about and lead to commensurate behavior (Kahle & Timmer, 1983). Hence, values encompass both the rationale underpinning an individual's behavior and that individual's beliefs about what is appropriate behavior. Values, therefore, are related to many perceptual, attitudinal, and behavioral outcomes (Ravlin & Meglino, 1987). They affect people's perceptions and behavior such that people will tend to perceive the world in ways that would be consistent with their values and to behave in ways that would be in accordance with their values (Meglino & Ravlin, 1998).

### Congruent Work Values

There are many types of work values. Work values represent the beliefs an individual has about the ideal ways one should behave at work. As with any values, work values are thought to be learned early in life and reflect cultural norms. Individuals with congruent work values should have greater agreement about what behaviors are

important in the workplace (Schein, 1985). Because values are a guide for behavioral choices, individuals who share similar work values are more likely to agree about goals, tasks, and procedures. Kluckhohn asserted, “When employees possess similar values they also have clearer role expectations because they can more accurately predict each other’s behaviors” (cited in Meglino, Ravlin, & Adkins, 1989, p. 424). Because values serve as perceptual filters, individuals with similar values are more likely to prioritize and interpret problems, events, and occurrences in similar ways. When dyad members share similar values, each feels that the other will behave predictably, appropriately, and in the desired direction (Uhl-Bien, Graen, & Scandura, 1997). Congruent work values may even reduce the need for communication because those with similar work values can often predict each other’s behavior. In addition, “Employees with congruent values will place similar interpretation on events in their immediate work environment” (Adkins, Ravlin, & Meglino, 1996, p. 441).

#### Work Values and LMX

Researchers have found that work value similarity is related to LMX (e.g., Liden et al., 1993; Steiner, 1988; Steiner & Dobbins, 1989). Most previous research looked at work value similarity as a predictor of the nature of the LMX relationship (e.g., Steiner, 1988; Steiner & Dobbins, 1989), finding that when there was perceived work value similarity, more extra-contractual relationships were formed. Subordinate work values, however, have been found to be a more significant predictor. No published research has looked at the relationship between value similarity and perceptual agreement regarding the nature of LMX relationships.

When supervisors and subordinates share similar value systems they will tend to perceive the same external stimuli in similar ways and to behave in similar ways (Meglino & Ravlin, 1998). It is then reasonable to expect that supervisors and subordinates who share similar work values would perceive the external stimuli relating to the nature of their LMX relationship in similar ways and, therefore, perceive that relationship similarly.

Hypothesis 2: The more similar in work values a supervisor and subordinate are, the more their LMX perceptions will agree.

H2A: More specifically, the more similar in work values a supervisor and subordinate are, the more favorable the subordinate will perceive the LMX relationship.

H2B: The more similar in work values a supervisor and subordinate are, the more favorable the supervisor will perceive the LMX relationship.

### Perceived Similarity: Hypothesis 3

Though similarity is one of the most central theoretical and empirical constructs in cognitive psychology (Phillips & Bedeian, 1994), perceived similarity is a stronger construct than actual similarity and, consequently, would have a greater influence on dependent variables (Liden et al., 1993). Accordingly, perceived similarity in work-related attitudes is more important to the process of manager-subordinate interpersonal relations than is actual similarity. Previous research has construed perceived similarity to include similarity in outlook, perspective, values, personality traits, attitudes about participative decision-making, attitudes about social issues, and problem-solving abilities (Engle & Lord, 1997; Liden et al., 1993; Phillips & Bedeian, 1994; Turban & Jones,

1988). For purposes of this dissertation, the perceived similarity construct of interest is perceived similarity in outlook and that both parties of the supervisor-subordinate dyad believe they are similar to each other. “The state of mutual congruence [of supervisor and subordinate work-related attitudes] can be considered to be a form of accurate communication that is associated with feelings of interpersonal satisfaction” (Wexley et al., 1980, p. 328).

Degree of perceived similarity and LMX are positively related (Engle & Lord, 1997; Liden et al., 1993; Phillips & Bedeian, 1994). For example, Phillips and Bedeian (1994) found that leaders’ perceptions of their similarity in levels of extraversion with those of their subordinates’ were related to the nature of the LMX relationship. Though they measured perceptual similarity from both supervisors’ and subordinates’ perspectives, only information from supervisors’ perspectives were used. Engle and Lord (1997) did measure perceived similarity (in their case, perceived attitude similarity in many areas including perceptions of similarity in participative decision making) from both the supervisor and subordinate perspective, but did not look at the relationship between dyad members’ perceived similarity and dyad members’ perceptions of the nature of their LMX relationship. The correlation (Engle & Lord, 1997) between supervisor and subordinate perceptions of attitude similarity was .13 ( $p > .05$ ) and the correlation between supervisor and subordinate perception of their LMX relationship was .32 ( $p = .05$ ). Because they did not explore the relationship between perceived similarity and perceptions of the nature of the LMX relationship, however, it is difficult to ascertain how perceived attitude similarity might have been related to LMX perceptual agreement.

## Perceived Similarity and LMX

Previous studies have consistently found perceived similarity to be positively related to the nature of LMX (Liden et al., 1993; Liden, Sparrow, & Wayne, 1997). Perceived similarity has a more noticeable effect on LMX than does demographic similarity (Kim & Organ, 1982; Liden et al., 1993; Turban & Jones, 1988; Wexley & Pulakos, 1983). Theory and empirical results suggest that if the individuals in a dyad perceive each other to be similar, they will tend to like one another and the relationship will be extra-contractual (Bauer & Green, 1996; Liden et al., 1993; Turban & Jones, 1988). Subordinates who perceived their supervisors as similar to themselves had more trust and confidence in their leaders (Turban & Jones, 1988).

A leader's expectations may be related to a member's perception of the LMX relationship, and these expectations may be biased by Merton's (1948) self-fulfilling prophecy such that a leader's expectations of members will induce subsequent behavior toward those members. Liden et al. (1993) found that the degree of perceived similarity and type of LMX may be directly related: Member-perceived similarity predicted member perceptions of the LMX relationship, leader-perceived similarity predicted leader perceptions of LMX (but not member LMX), and leader and member perceptions of similarity were significantly correlated. Perhaps if Liden and colleagues had also analyzed the relationship between agreement in perceptions regarding similarity and the agreement in perceptions regarding the nature of the LMX relationship, they would have found that the former would have been positively related to the latter. It is therefore hypothesized that supervisors and subordinates who perceive themselves to be similar to

each other would also perceive the nature of their LMX relationship in similar ways, and, therefore, perceive that relationship similarly.

Hypothesis 3: The more similar a supervisor and subordinate perceive themselves to be in outlook and perspective, the more their LMX perceptions will agree.

H3A: More specifically, the more similar a supervisor and subordinate perceive themselves to be, the more favorable the subordinate will perceive the LMX relationship.

H3B: The more similar a supervisor and subordinate perceive themselves to be, the more favorable the supervisor will perceive the LMX relationship.

#### Cooperative Communication: Hypothesis 4

Communication between a supervisor and subordinate may include information exchange, sharing ideas and resources, being supportive, showing concern and interest, and asking for and/or giving advice. Lee (1997) coined the term cooperative communication to refer to communications that facilitate the joint achievement of work goals. Previous LMX/communication research has focused on either differing communication patterns as consequences of the nature of a LMX relationship (e.g., Fairhurst, 1993; Fairhurst, Rogers, & Sarr, 1987) or the association between frequency of communication and the nature of a LMX relationship (e.g., Kramer, 1995). No published research has investigated the relationship between cooperative communication and agreement about the perceived nature of a LMX relationship. One study in particular does shed light on this topic, however. Based on the premise that individuals who interact

more with one another tend to share the same view of their world, researchers found that supervisors and subordinates had greater perceptual congruence regarding their organization's social structure than coworkers who were not in such a reporting relationship (Heald, Contractor, Koehly, & Wasserman, 1998). Other research has demonstrated that informal communication exchanges between supervisors and subordinates often lead to mutual understanding. For example, recent studies have found that supervisors and subordinates often deal successfully with perceptual discrepancies regarding performance issues through interactive, informal negotiations (Balser & Stern, 1999). Also, employees who communicate more often are more likely to have higher levels of perceptual congruence regarding their environment (Heald et al., 1998). Heald et al. (1998) also discussed prior research that found employees who communicate more frequently had greater perceptual congruence regarding the vision and mission of their organization.

If it is true, as communication theorists have argued (e.g., Sias, 1996), that individuals' perceptions of their environment are created through communications with others, then it would seem reasonable to expect that the greater the levels of cooperative communication within a supervisor and subordinate dyad, the more likely the dyad members will be to share similar perceptions of their environment, including perceptions of their LMX relationship.

Hypothesis 4: The more a supervisor and subordinate engage in cooperative communication, the more likely their LMX perceptions will agree.

H4A: More specifically, the more a supervisor and subordinate engage in cooperative communication, the more favorable the subordinate will perceive the LMX relationship.

H4B: The more a supervisor and subordinate engage in cooperative communication, the more favorable the supervisor will perceive the LMX relationship.

#### Frequency of Feedback: Hypotheses 5 - 8

Feedback about one's job performance is a subset of communication and involves sharing information about how one person perceives and evaluates another person's behavior (Ashford, 1986). The performance appraisal literature informs this area as well. Research suggests that providing employees with feedback will close the gap between self- and other ratings (Ashford, 1989; Atwater, Roush, & Fischtal, 1995). As individuals receive more feedback, they become more self-aware (Atwater et al., 1995), and just as this can lead to increased agreement between self and others' ratings, so too may increased feedback lead to awareness and perceptual agreement about the nature of an LMX relationship. Feedback on individual performance serves many functions within the supervisor-subordinate relationship; for instance, supervisor feedback enables an employee to determine what are acceptable workplace behaviors and performance.

Unfortunately, it appears that supervisors are often loath to provide feedback, especially negative feedback, to their subordinates (Charan, 2001; Northcraft & Ashford, 1990). Charon (2001) suggested that it is the supervisor's responsibility to provide candid, constructive, and honest feedback to their subordinates, especially to those who are not performing well. This is difficult to do, and represents a leadership challenge



(Charon, 2001). Since feedback is critical in ensuring high levels of performance, Ashford and Cummings (1983) suggested two main strategies an individual might use to seek feedback: monitoring and inquiry. Monitoring is when individuals observe events within their environment to infer a feedback message. Any action or lack of action by others can be interpreted as feedback. Inquiry is a more active form of feedback-seeking wherein individuals directly ask how others perceive them and evaluate their behavior. Monitoring and inquiry might be particularly useful because the individual directly controls their use, and hence they are usually viewed as less threatening (Northcraft & Ashford, 1990). Ashford and Cummings (1983) also suggested that whereas individuals can seek feedback either through monitoring or inquiry, inquiry is more costly, as it exposes an individual's need for feedback and may be seen as a sign of weakness. It is the inquiry strategy of feedback that more directly involves communication between supervisors and subordinates. Thus, it is this type of feedback-seeking behavior that I suggest could lead to perceptual agreement about the nature of the shared LMX relationship.

Another important category of feedback is upward feedback, which is when subordinates give feedback to their supervisors about the supervisors' own performance. Such feedback can provide supervisors with an accurate sense of how their subordinates perceive and evaluate the supervisors' work, and can give the supervisors' insight as to how they can improve their own performance. As noted above, research indicates that supervisors tend to hesitate to offer feedback. Consider then how rare it must be for subordinates to offer feedback to their supervisors! It therefore becomes incumbent upon the supervisors to solicit feedback from their subordinates. This is more likely in an

environment of candor and openness (Charan, 2001). Monitoring and inquiry strategies would be available to both supervisors and subordinates.

Clearly there are differences between positive and negative feedback (e.g., Ashford & Tsui, 1991). For purposes of this study, however, I investigated the frequency of feedback attempts, not the type of feedback being offered or requested. I viewed feedback as a subset of communications, and as noted above, communication between a supervisor and subordinate increases the likelihood of a shared understanding of their environment and, hence, a shared perception of their LMX relationship.

### Giving Feedback

Both dyad partners may give feedback to one other. The more feedback individuals give to one another, the more likely it is that the recipients will be able to discern the others' perceptions of their shared environment. Hypothesis 5 is from a supervisor's perspective:

Hypothesis 5: The more frequently a supervisor offers feedback to a subordinate about the subordinate's job performance, the more their LMX perceptions will agree.

H5A: More specifically, the more frequently a supervisor offers job performance feedback to a subordinate, the more favorable the subordinate will perceive the LMX relationship.

H5B: The more frequently a supervisor offers job performance feedback to a subordinate, the more favorable the supervisor will perceive the LMX relationship.

Hypothesis 6 relates giving feedback from a subordinate's perspective:

Hypothesis 6: The more frequently a subordinate offers feedback to a supervisor about the supervisor's job performance, the more their LMX perceptions will agree.

H6A: More specifically, the more frequently a subordinate offers job performance feedback to a supervisor, the more favorable the subordinate will perceive the LMX relationship.

H6B: The more frequently a subordinate offers job performance feedback to a supervisor, the more favorable the supervisor will perceive the LMX relationship.

#### Seeking Feedback

Asking for feedback involves a certain amount of risk for a solicitor. Feedback sources may view a solicitor as being weak or deficient. It seems reasonable to expect that when individuals feel comfortable enough with one another to request feedback, they are more likely to share an understanding of their environment and, hence, a shared perception of their LMX relationships. Hypothesis 7 is from a supervisor's perspective:

Hypothesis 7: The more frequently a supervisor seeks feedback from a subordinate about the supervisor's own job performance, the more their LMX perceptions will agree.

H7A: More specifically, the more frequently a supervisor seeks job performance feedback from a subordinate, the more favorable the subordinate will perceive the LMX relationship.

H7B: The more frequently a supervisor seeks job performance feedback from a subordinate, the more favorable the supervisor will perceive the LMX relationship.

Hypothesis 8 relates seeking feedback to a subordinate's perspective:

Hypothesis 8: The more frequently a subordinate seeks feedback from a supervisor about the subordinate's own job performance, the more their LMX perceptions will agree.

H8A: More specifically, the more frequently a subordinate seeks job performance feedback from a supervisor, the more favorable the subordinate will perceive the LMX relationship.

H8B: The more frequently a subordinate seeks job performance feedback from a supervisor, the more favorable the supervisor will perceive the LMX relationship.

#### Role Clarity: Hypotheses 9 - 10

Many roles are assigned based on an individual's position within an organization (Jackson & Schuler, 1985). The term role can be defined as the collection of behaviors that is expected of a person in a social context. The person holding a role is a role incumbent, and the behaviors expected of that person are role expectations. As Rizzo, House, and Lirtzman (1970) posited, role incumbents may view their roles differently than do others in an organization. When individuals perceive that their role expectations are incompatible or incongruent with the reality of their role, they are experiencing role conflict. When individuals know what is expected of them in their job, such as their level of authority or responsibility, they are experiencing role clarity. Role clarity refers both to

how predictable outcomes are in response to one's behavior and to the existence of behavioral requirements to guide one's behavior.

Role clarity and role conflict can both be thought of as functions or subsets of communication clarity. As noted above, theorists have argued that communication plays an important role in developing attitudes and perceptions of social reality (e.g., Berger & Luckmann, 1966; Salancik & Pfeffer, 1978; Weick, 1969). "By sharing information and opinions, members construct a consensual understanding of, and an attitude towards, their environment" (Sias, 1996, p. 172). Berger and Luckmann (1966) argued that language objectifies subjective reality and Weick (1969) claimed that sense-making begins with talking. It has also been established that employees who receive information about aspects of their work environment tend to have more similar perceptions about it than do those employees who do not receive such information (Zalesny & Farace, 1987).

While role ambiguity indicates a lack of information about what workplace behaviors are appropriate and expected (Tubre & Collins, 2000), role clarity indicates sufficient information to recognize and identify expected and appropriate workplace behaviors. Increasing communication between supervisors and subordinates can increase the opportunities subordinates have to obtain relevant information and knowledge about their work experience (Johlke & Duhan, 2001). In this way, communication increases the probability for role clarity. Previous research found that when managers are demographically different than their subordinates, subordinates perceive greater levels of role ambiguity, and it was suggested that managers might want to increase their levels of communication to try and reduce this role ambiguity (Tsui & O'Reilly, 1989). Supervisors who clearly communicate role expectations to their subordinates, and who

also communicate the amount and type of support they are willing to offer to their subordinates, greatly enhance the likelihood of increased role clarity (Johlke & Duhan, 2001). The greater the levels of communication, the more opportunity there is to share information about job expectations. The more there is knowledge about job expectations, the greater the likelihood of increased role clarity and decreased role conflict which, in turn, can lead to perceptual agreement about the nature of a job and the nature of a LMX relationship. One implication that can be drawn from this is that the clearer the communications about role expectations and standards, the more role clarity and, therefore, the more likely it is that there will be shared perceptions of an LMX relationship.

The clearer supervisors are about communicating role expectations, the more apt subordinates will be to understand those expectations. When there are clear communications about role expectations, subordinates will experience greater role clarity and decreased role conflict, and thus there exists a greater possibility that both dyad members will perceive the nature of a LMX relationship similarly.

Hypothesis 9: Role clarity will be positively related to the level of perceptual agreement about a LMX relationship.

H9A: More specifically, the more clearly subordinates perceive their role, the more favorable the subordinates will perceive their LMX relationship.

H9B: The more clearly the subordinates perceive their role, the more favorable their supervisors will perceive their LMX relationship.

Hypothesis 10: Role conflict will be negatively related to the level of perceptual agreement about a LMX relationship.

H10A: More specifically, the less role conflict experienced by a subordinate, the more favorable the subordinate will perceive a LMX relationship.

H10B: The less role conflict experienced by subordinates, the more favorable their supervisors will perceive their LMX relationship.

### Summary and Restatement of the Problem

Supervisors develop unique relationships with each of their employees. There has been much research investigating the development and outcomes of the supervisor-subordinate relationship. Research, however, indicates that only rarely do supervisors and subordinates agree about the nature of their relationship (Gerstner & Day, 1997). Few studies have examined the correlation between agreement in perceptions, and none have investigated the antecedents of such agreement in perceptions about the nature of the supervisor-subordinate relationship.

I propose that there are both proximal (e.g., one-on-one supervisor-subordinate communication) and distal (e.g., a person's work values) influences on the levels of perceptual agreement about the nature of each dyadic LMX relationship. I specifically suggest that demographic and work value similarity, as well as perceived similarity, between the supervisor and subordinate and communication, including the giving and seeking of feedback and the presence of open and clear communications and agreement about job standards, expectations and levels of desired performance, would all influence the degree of perceptual agreement about the nature of the LMX relationship between the supervisor and subordinate. I propose that as actual and perceived similarity increases, and as communication increases, the ratings on the respective LMX and SLMX measures

would also increase. Table 2 includes a summary of the hypotheses presented in Chapter 2.

In Chapter 3, I discuss how I measured the study variables and tested the hypotheses.

## Table 2

### Summary of Hypotheses Tested

Hypothesis 1: The more similar in demographics a supervisor and subordinate are, the more their LMX perceptions will agree.

H1A: More specifically, the more similar in demographics a supervisor and subordinate are, the more favorable the subordinate will perceive the LMX relationship.

H1B: The more similar in demographics the supervisor and subordinate are, the more favorable the supervisor will perceive the LMX relationship.

Hypothesis 2: The more similar in work values a supervisor and subordinate are, the more their LMX perceptions will agree.

H2A: More specifically, the more similar in work values a supervisor and subordinate are, the more favorable the subordinate will perceive the LMX relationship.

H2B: The more similar in work values a supervisor and subordinate are, the more favorable the supervisor will perceive the LMX relationship.

(table continued)



Hypothesis 3: The more similar a supervisor and subordinate perceive themselves to be in outlook and perspectives (e.g., they see things in much the same way), the more their LMX perceptions will agree.

H3A: More specifically, the more similar a supervisor and subordinate perceive themselves to be, the more favorable the subordinate will perceive the LMX relationship.

H3B: The more similar a supervisor and subordinate perceive themselves to be, the more favorable the supervisor will perceive the LMX relationship.

Hypothesis 4: The more a supervisor and subordinate engage in cooperative communications, the more likely their LMX perceptions will agree.

H4A: More specifically, the more a supervisor and subordinate engage in cooperative communications, the more favorable the subordinate will perceive the LMX relationship.

H4B: The more a supervisor and subordinate engage in cooperative communications, the more favorable the supervisor will perceive the LMX relationship.

Hypothesis 5: The more frequently a supervisor offers feedback to a subordinate about the subordinate's job performance, the more their LMX perceptions will agree.

(table continued)

H5A: More specifically, the more frequently a supervisor offers job performance feedback to a subordinate, the more favorable the subordinate will perceive the LMX relationship.

H5B: The more frequently a supervisor offers job performance feedback to a subordinate, the more favorable the supervisor will perceive the LMX relationship.

Hypothesis 6: The more frequently a subordinate offers feedback to a supervisor about the supervisor's own job performance, the more their LMX perceptions will agree.

H6A: More specifically, the more frequently a subordinate offers job performance feedback to a supervisor, the more favorable the subordinate will perceive the LMX relationship.

H6B: The more frequently a subordinate offers job performance feedback to a supervisor, the more favorable the supervisor will perceive the LMX relationship.

Hypothesis 7: The more frequently a supervisor seeks feedback from a subordinate about the supervisor's own job performance, the more their LMX perceptions will agree.

H7A: More specifically, the more frequently a supervisor seeks job performance feedback from a subordinate, the more favorable the subordinate will perceive the LMX relationship.

(table continued)

H7B: The more frequently a supervisor seeks job performance feedback from a subordinate, the more favorable the supervisor will perceive the LMX relationship.

Hypothesis 8: The more frequently a subordinate seeks feedback from a supervisor about the subordinate's own job performance, the more their LMX perceptions will agree.

H8A: More specifically, the more frequently a subordinate seeks job performance feedback from a supervisor, the more favorable the subordinate will perceive the LMX relationship.

H8B: The more frequently a subordinate seeks job performance feedback from a supervisor, the more favorable the supervisor will perceive the LMX relationship.

Hypothesis 9: Role clarity will be positively related to the level of perceptual agreement about the LMX relationship

H9A: More specifically, the more clearly subordinates perceive their roles, the more favorable they will perceive their LMX relationships.

H9B: More specifically, the more clearly subordinates perceive their roles, the more favorable they will perceive their LMX relationships.

Hypothesis 10: Role conflict will be negatively related to the level of perceptual agreement about the LMX relationship.

(table continued)

H10A: More specifically, the less role conflict experienced by subordinates, the more favorable they will perceive their LMX relationships.

H10B: The less role conflict experienced by subordinates, the more favorable their supervisors will perceive their LMX relationships.

### Chapter 3: Methodology

In this chapter, the focal sample, survey instruments, survey administration, data collection procedures, and data analyses will be described.

#### Setting and Subjects

Exactly 329 supervisor-subordinate dyads participated in this study. There were 81 individuals with the title supervisor or manager and 248 subordinates. They were employed in four organizations located in the southeast: a hospital (142 respondents: 78 in Patient Care Services and 64 in support services); a bank (61 respondents); a hotel management company (54 respondents); a medical clinic specializing in treating eye diseases (72 respondents). Only two individuals chose not to participate in the study, thus non-response bias was not a factor. These four sites each had a number of layers of supervision, with at least the bottom two layers having a span of control of at least four subordinates.

A breakdown of the demographics for respondents at each organization is listed in Table 3. When there were no individuals in a particular category, I collapsed two of the cells in order to perform chi-square analyses (e.g., there were no hotel employees less than 21 years old, so I combined the categories of *under 21* and *21-35 years old*.) Chi-square analyses indicated four significant ( $p < .01$ ) differences among the organizations. Specifically, there are significant differences in race, age, organizational tenure and supervisor tenure. Over 80% of the employees in each of two of the organizations were Caucasians, while in the other two organizations there was a more evenhanded distribution. There is a significant difference in age among the organizations; therefore, it seems reasonable to also expect that organizational tenure would be significantly

different. The bank and hotel management company had recently reorganized several of their work units, and therefore there were a high number of respondents who had been with their supervisor less than one year. There were no differences in terms of gender or levels of education. The four organizations were treated as one sample, and race, age, organizational tenure and supervisor tenure were included as control variables in all data analyses.

Table 3  
Demographic Characteristics of Sample by Organization

Variable	$\chi^2$	Hospital Frequency (%)	Bank Frequency(%)	Hotel Mgt Frequency (%)	Eye Clinic Frequency(%)
Gender ( <i>n</i> = 329)	7.1				
Male		38 (27)	10 (16)	10 (19)	9 (13)
Female		104 (73)	51 (84)	44 (81)	63 (87)
Race ( <i>n</i> = 328)	32.8*				
Caucasian		79 (56)	50 (82)	33 (61)	65 (90)
Other		62 (44)	11 (18)	21 (39)	7 (10)
Age ( <i>n</i> = 327)	25.3*				
< 35		46 (33)	33 (54)	31 (57)	38 (53)
36-50		58 (41)	16 (26)	20 (37)	27 (38)
> 50		37 (26)	12 (11)	3 (6)	6 (9)

(tablecontinued)

Table 3 continued

Variable	$\chi^2$	Hospital Frequency (%)	Bank Frequency (%)	Hotel Mgt Frequency (%)	Eye Clinic Frequency(%)
Education ( <i>n</i> = 328)	12.3				
High School		59 (42)	28 (46)	34 (63)	32 (44)
Some college		51 (36)	19 (31)	9 (17)	29 (40)
College grad		22 (16)	11 (18)	9 (17)	7 (10)
Graduate School		9 (6)	3 (5)	2 (4)	4 (6)
Organizational Tenure ( <i>n</i> = 325)	48.9*				
< 1 year		12 (9)	10 (16)	22 (42)	18 (25)
1-2 years		21 (15)	9 (15)	7 (14)	9 (13)
3-5 years		26 (19)	19 (31)	13 (25)	11 (15)
6-10 years		26 (19)	7 (11)	7 (13)	17 (24)
> 10 years		55 (39)	16 (26)	3 (6)	17 (24)
Supervisor Tenure ( <i>n</i> =324)	57.5*				
< 1 year		20 (14)	29 (47)	31 (60)	27 (37)
1-2 years		38 (27)	18 (30)	7 (13)	16 (22)
3-5 years		44 (32)	9 (15)	8 (15)	10 (14)
6-10 years		18 (13)	2 (3)	3 (6)	13 (18)
> 10 years		19 (14)	3 (5)	3 (6)	6 (8)

\**p* < .01

Across all respondents, 20.4% were male and 79.6% were female. About 70% were Caucasian, 27% African-American, 2% Native American and 1% each Hispanic and Asian/Pacific islander. Only about 2% were under 21 years old, 43 % were between the ages of 21 and 35, 37 % were between the ages of 36 and 50, and almost 18% were over 50 years old. More than half (56%) have children at home, 21% have grown children, and 23% have no children. Because almost 75% of the respondents omitted information about their children, I deleted this variable from all analyses. Almost 44% had a high school or GED degree, 33% had some college, 20% had a college degree, and less than 3% had no formal education past grade school (there was one individual who was illiterate, and I read the survey to her). In terms of organizational tenure, about 20% had less than one year, 14 % had one to two years, 21% had three to five years, almost 18% had six to ten years, and 28% had over ten years tenure. About one-third of the respondents had been with their supervisor less than one year, 24% one to two years, 22% between three and five years, 11% for six to ten years, and almost 10% had been with their supervisor for over ten years.

Another way to describe the demographics of the sample is to look at the demographic information separately for the supervisors and subordinates. For the supervisors, 62.9% were male and 37.1% were female. About 70% were Caucasian, 26% were African-American, 1% Native American and 3% Asian/Pacific islander. None were under 21 years old, about 24% were between the ages of 21 and 35, 47% were between the ages of 36 and 50, and almost 30% were over 50 years old. About 35% had a high school or GED degree, almost 24% had some college, 26% had a college degree, 13% had done some post-graduate work, and about 1% had no formal education past grade



school. About 14% of the subordinates were male, while almost 86% were female. Almost 70% of the subordinates were Caucasian, 29% were African-American, and about 1% were Hispanic. Almost 3% were under the age of 21, about 49% were between the ages of 21 and 35, 34% were between the ages of 36 and 50, and almost 14% were over 50 years old. About 3% had no formal education beyond grade school, 46% had a high school or GED degree, about 34% had some college, almost 13% had a college degree, and 4% had done some post-graduate work.

### Procedure

At each site, a room was set aside where I met with all potential participants and where the participants then completed the survey(s) created for the study. At the eye clinic, I first presented my research program to the entire staff at their annual office meeting. At the other sites, I met first with the managers and supervisors who had been invited by upper management to participate. I asked upper management to select managers and supervisors who had at least four subordinates reporting to them. I met with each supervisor and explained the purpose and importance of the study. I told them that their responses would not be seen by their respective superiors, subordinates, or organizations, and that they, as well as their organization, would receive an overall summary report that had no way to identify specific work groups or individuals. Each supervisor was asked to complete a survey. Only two supervisors refused to participate. The supervisors were also asked to complete a separate survey on each of four of their subordinates. After clarifying the concept of the contractual and extra-contractual relationships continuum, I asked the supervisors to choose one subordinate with whom they had a contractual relationship, one with whom they had an extra-contractual

relationship, and two with whom they have relationships in the middle. In some of the smaller work units, the supervisors selected only three subordinates to participate.

I then met with the designated subordinates and explained the purpose and importance of the study. I told them that their responses would not be seen by their respective superiors, subordinates, or organizations, and that they, as well as the organization would receive an overall summary report with no way to identify specific work groups or individuals. All individuals asked to participate did so.

### Measures

There are two survey forms. One survey form was completed by supervisors and subordinates and included both demographic data and all of the study measures. I recoded race as a dichotomous variable, 0 = other and 1 = Caucasian. Gender was also coded as a dichotomous variable, 0 = female and 1 = male. All of the measures used a five-point response format. To create measure scores, responses were first summed and then averaged. The second survey was completed by supervisors only, and included measures regarding the supervisors' perceptions of their LMX relationship, their perceived attitude similarity, and frequency of upward feedback solicitation with each of their previously selected subordinates. Each organization (and some of the divisions within an organization) opted to add some survey items. The organizations were interested in identifying some additional outcome measures (e.g., organizational commitment, intent to turnover, performance). To encourage organizational participation, these were added to the survey when requested. A description of the measures used in the two base surveys follows below. Appendix A lists individual measure items and, where appropriate, their

origin, Appendix B includes a sample Employee Survey, and Appendix C includes the base Supervisor Survey.

## Employee Surveys

### Subordinate LMX Perceptions

Employees' perceptions of the nature of their relationship with their supervisors were gauged using Scandura and Graen's (1984) seven-item Leader-Member Exchange Scale (LMX-7). This has been the most frequently used instrument in LMX research (Gerstner & Day, 1997), and is reported to have high reliability and freedom from social desirability (Liden & Maslyn, 1998). Even though construct validity has not been verified (Schriesheim, Castro, & Cogliser, 1999), it does appear to have concurrent and predictive validity (Cogliser et al., 1999). Sample items include the following: "I know where I stand...I usually know how satisfied my supervisor is with what I do," "My supervisor recognizes my potential," "I have an effective working relationship with my supervisor." The measure had a coefficient  $\alpha$  of .88. Graen and Uhl-Bien's (1995) recommendations regarding the LMX-7 were followed because this appears to be the version of the LMX measure that will become the most widely used. This should make comparisons across future studies less difficult.

### Values

Much of the literature on work values has centered on the Protestant work ethic (e.g., Blood, 1969; Miller, Woehr, & Hudspeth, 2001; Wollack, Goodale, Witjing, & Smith, 1971). Although this value system was originally tied to religious beliefs about salvation, the work ethic has become secularized. This value system is grounded in the belief that hard work is good in itself and that one's personal worth and integrity are

judged by one's willingness to work hard (Morrow, 1983). The principal aspects of the Protestant Work Ethic (PWE) were described by Weber as being individualism, asceticism, and industriousness, and, according to Wollack et al. (1971), the emphasis on industriousness is the one most critical and relevant in terms of the modern work ethic. The work ethic construct is currently viewed as an attitude related to work-oriented values, such that an individual who held a high work ethic would place great value on hard work, efficient use of time, and the intrinsic value of work (Miller et al., 2001). Accordingly, PWE has come to mean a commitment to hard work and to self-reliance, not a measure of religiosity. As such, PWE is a measure of the significance an individual places on work itself, and is an example of a personal moral code (Dose, 1997). Individuals who share a similar personal moral code would tend to strongly internalize their values (Dose, 1997) and thus be more likely to share similar values about the significance of work itself and what behaviors might be important in the workplace.

A number of instruments have been constructed to measure PWE. The more recent research and validation studies support the suggestions that the work ethic construct is multidimensional (e.g., Heavens, 1989; Miller et al., 2001). Mirels and Garrett's (1971) Protestant Work Ethic instrument had been the most widely used (Jones, 1997), and in 1989, Heaven updated their instrument by reducing the number of items from 19 to 9. I used Heaven's modification of the Mirels and Garrett PWE instrument to measure work values (Heaven, 1989). The wording of several items was modified to eliminate sexist language. For example, the item "There are few satisfactions equal to the realization that one has done his best at a job" was changed to "There are few satisfactions equal to the realization that one has done his or her best at a job." Other

sample items include: “Most people who don’t succeed in life are just plain lazy,” “I feel uneasy when there is little work for me to do,” and “The self-made person is likely to be more ethical or honest than those born to wealth.”

This measure turned out to be problematic. Many of the individuals completing the survey questioned several of the items on this measure. They had trouble understanding some of the items (e.g., Most people spend too much time in unprofitable amusements). A post hoc analysis of the instrument was done, including a factor analysis. Four items loaded on one factor, with each item having a loading greater than .5. These four items had a coefficient  $\alpha$  of .73. The four items were: “Most people who don’t succeed in life are just plain lazy,” “The self-made person is likely to be more ethical or honest than the individual born to wealth,” “I feel uneasy when there is little work for me to do,” and “A distaste for hard work usually reflects a weakness of character.” This four item measure was used in all subsequent analyses regarding work values.

#### Perceived Similarity

Four items were used to measure perceived similarity. Three of the items are from Turban and Jones (1988). A sample item is: “My supervisor and I are similar in terms of our outlook and perspective.” One item is from Pulakos and Wexley (1983): “My supervisor and I are similar kinds of people.” These four items have been used in several research studies (e.g., Liden et al., 1993). The measure had a coefficient  $\alpha$  of .90.

#### Cooperative Communication

Five items were used to measure cooperative communication. Cooperative communication refers to communication between a supervisor and a subordinate that facilitates achieving work-related goals. The items were adapted from Lee’s (1997)

Cooperative Communication instrument. Lee's instrument is a modified version of an instrument developed by Pinto and Pinto in 1990 to measure cooperation among team members (Lee, 1997). Lee's instrument had seven items and referred to work group communication. Five of the items were reworded to refer to a supervisor. Sample items include "In general, it is difficult to approach my supervisor" and "My supervisor often fails to communicate information to me." The modified measure had a coefficient  $\alpha$  of .81.

#### Supervisor Feedback to Subordinate

Ten items were used to measure feedback (Kramer, 1995). These items had been used in prior feedback research, and Kramer also tested them on a group of currently employed adults. Kramer (1995) found that the method of exchanging feedback (i.e., solicited or unsolicited) has more salience than the different types of feedback. Sample items include "My supervisor lets me know if I am working up to his or her expectations" and "Without asking, my supervisor tells me how well I am doing my job." The measure had a coefficient  $\alpha$  of .91.

#### Subordinate Feedback to Supervisor

Four items from Kramer (1995) were modified and used to assess upward feedback. Sample items include: "I give my supervisor feedback on how well we are working together," "I give my supervisor praise and recognition for his/her efforts." This measure had a coefficient  $\alpha$  of .84.

#### Subordinate Feedback-Seeking

Five items from Kramer (1995) were used to measure feedback solicitation. Sample items include: "I ask my supervisor for feedback on how I am doing" and "I ask

my supervisor if I am meeting all my job requirements.” This measure had a coefficient  $\alpha$  of .92.

#### Role Clarity/Role Conflict

Role clarity and role conflict were measured by using the six- and eight-item measures from Schuler, Aldag, and Brief (1977). A more recent study looked at the measure’s convergent and discriminant validity (Netemeyer, Johnston, & Burton, 1990). Sample items include: “I feel certain how much authority I have” and “I know what my responsibilities are.” These were treated as two separate measures. The role clarity measure had a coefficient  $\alpha$  of .82; the role conflict measure had a coefficient  $\alpha$  of .81.

#### Supervisor Survey

Supervisors completed two types of surveys. The first included the same set of measures described above, and then they completed one-page surveys on each of the four subordinates selected. The measures used in the one-page survey are described below.

#### Supervisor LMX Perceptions (SLMX)

The supervisor version of the LMX-7 used in the employee survey was used in this survey. The seven items comprising the LMX-7 were reworded to indicate the supervisor’s perceptions (e.g., instead of “My supervisor understands my job problems and needs,” the item reads “How well do you understand this employee’s job problems and needs”). This measure had a coefficient  $\alpha$  of .86.

#### Perceived Similarity

The four items in the employee survey were also used to measure supervisors’ perceived similarity between themselves and each of their subordinates. This measure had a coefficient  $\alpha$  of .93.

### Supervisor Feedback-Seeking

Four items modified from Kramer (1995) were used to measure upward communication solicitation. A sample modified item is: "I ask this subordinate for feedback on how I am doing." This measure had a coefficient  $\alpha$  of .88.

### Tests of Hypotheses

All 10 hypotheses were tested using multivariate multiple regression analysis. Multivariate multiple regression is used when there are two or more correlated variables that are to be predicted from two or more correlated predictor (or independent) variables (Johnson & Wichern, 2002). The objective of multivariate multiple regression is the simultaneous regression of a set of dependent variables (i.e., a set of measured  $Y$  variates) on a set of independent variables (i.e., a set of measured  $X$  variates). The General Linear Model (GLM) goes a step beyond the multivariate regression model by allowing for linear transformations or linear combinations of multiple dependent variables. The GLM is a general procedure for regression that allows one to examine the simultaneous effects of two or more interrelated dependent variables.

Multivariate GLM provides the basis for analyses of dependent variables that are correlated with one another, and for independent variables that might also be correlated with each other. Associated tests, unlike separate univariate analyses, are responsive to the direction and magnitude of the correlations between dependent variables (Tabachnick & Fidell, 1983). GLM provides information for multivariate tests of the variance explained by all equations jointly as well as tests of the relative magnitudes of coefficients across equations. Multivariate multiple regression takes into account relationships among independent variables and also relationships among dependent



variables, including that part of the relationship explained by common predictors and any unexplained parts represented by covariance among residuals. Multivariate tests of significance of independent linear combinations of the two dependent variables also give insight into which among the independent variables are in fact related to individual dependent variables.

All analyses were performed using the General Linear Model (GLM) multivariate regression procedure of SPSS. This procedure generates multivariate statistical measures (such as Wilks'  $\Lambda$ ) of the relationships between each independent variable and each dependent variable along with an overall test of these relationships as a set (an overall  $F$  test). SPSS was also used to calculate an overall Wilks'  $\Lambda$  for each of the equations. Wilks'  $\Lambda$  is a multivariate measure of significance. It measures group differences over several variables. In addition, as I will discuss below, hypotheses 1-3 were tested using polynomial regression analysis within a multivariate framework.

#### Agreement Analysis of Dependent Variables

The focal dependent variable is supervisors' and subordinates' perceptual agreement of their dyadic LMX relationships. There is currently a debate in the organizational sciences as to how to calculate and interpret the various congruence and similarity measures that are now in use. Historically, difference scores have been the most widely used congruence measure in organizational research. There have, however, been numerous criticisms of the ways difference scores have been used and interpreted. These attacks date from the 1920s with Thorndike's (1924) discussion of the problems inherent in using imperfect measures. Imperfect measures are those measures whose self-correlation is less than 1.0. Thorndike (1924) emphasized that the average difference

between two *obtained* scores equals the average difference between the *true* scores that would have been obtained by perfect measures. For any individual calculation, however, the difference between the two obtained scores will be affected by measurement error. The lower the self-correlation, the greater the error, and the greater its effect. Debates about the suitability of difference scores arose periodically throughout the years, and there has been a recent resurgence (e.g., Bedeian, Day, Edwards, Smith, & Tisak, 1994; Irving & Meyer, 1999; Peter, Churchill, & Brown, 1993).

There is still no consensus regarding the appropriateness of difference scores. The major issues involve reliability and validity. These issues are important and I will discuss them in more detail below.

#### Difference Score Reliability

There are those who believe difference scores are appropriate measures. For example, Rogosa, Brandt, and Zimowski (1982) demonstrated that difference scores are not intrinsically unreliable, and that low reliability does not equal lack of precision nor does it preclude the meaningful assessment of individual change. Rogosa and Willet (1983) emphasized one should determine reliability by its ability to distinguish among individuals on a particular trait or true score. Rogosa et al. (1982) also discussed relative differences due to differences in initial status (e.g., from 10 to 11 = 1; from 1000 to 1001 = 1). The percentage difference however is very different!

Major criticisms have been directed towards difference scores. One area of criticism has been the apparent unreliability of difference scores. In most instances, the individual scores obtained come from fallible indicators such as ratings, observations, tests, or other instruments (Tucker, Damarin, & Messick, 1966). This fallibility leads to

problems in the use of difference measures. In fact, the differences between scores would probably be even more unreliable than the individual scores themselves because of the compounding effect of errors within each score (Tucker et al., 1966). Because it is unlikely that one can achieve perfect reliability, measurement error needs to be accounted for. “The unreliability of the basic data must be taken fully into account in the formulation of the derived measures themselves” (Tucker et al., 1966, p. 458). The reliability of a difference score is the proportion of true score variance to the observed score variance (Bedeian et al., 1994).

Another cause of unreliability is that correlations between linked observations will usually be higher than those between independent observations (Stanley, 1967). Also, if the component variables are highly correlated, the reliability of the difference score will be less than the average reliability of the component variables (Bedeian et al., 1994). Components generated by a single source usually have an even higher positive correlation. Research design therefore influences difference score reliabilities. Johns (1981) asserted we should no longer use difference scores provided by single individuals, and that even the use of difference scores from between-person measures must be carefully supported by theory as well as by empirical evidence.

#### Difference Score Validity

Difference scores cannot be unambiguously interpreted. A difference will primarily reflect the component, or indicator, with the larger variance; it cannot represent equal but opposite contributions of each component. Difference scores obscure the relative contributions of each of these components. The effects of these component variables are confounded, one cannot tease apart the relationships. This is even more

obvious when the explained variance can be primarily attributed to one component. Difference scores do not explain variance beyond that associated with their components. In fact, both of the components jointly explain more variance than do the individual difference scores (Cronbach & Gleser, 1953).

Johns (1981) suggested that researchers used difference scores as if they did not need to be cognizant of validity. He felt that independent evidence was seldom presented to substantiate the claim that difference scores actually captured the construct in question. He asserted difference score constructs were less likely to be grounded in theory. The use of difference scores implies that they do something more than the components they came from (Johns, 1981).

#### Alternative to Difference Scores

The issues of reliability and validity of difference scores discussed above have also been more recently addressed. A current critic of difference scores is Edwards (e.g., 1993, 1994, 1995). Edwards believes the use of difference scores should be abandoned totally, arguing that they are unreliable and inappropriate. In 1995, Edwards specifically addressed the issue of using alternatives to difference scores as dependent variables.

Edwards' suggestion is based on three general principles:

1. Each component of the agreement variable represents conceptually distinct constructs, and should remain distinct in data analysis. In this dissertation, the supervisor and subordinate perceptions of their LMX relationship would then represent conceptually distinct constructs, and should remain distinct in data analysis;

2. Models predicting agreement should be tested using multivariate analyses that treat the dependent component measures jointly so that there are estimates of the effects of each predictor on each of the two component measures along with the multivariate tests of the relationship between the predictors and the agreement measures as a set;
3. Hypotheses regarding dependent agreement variables should be stated in terms of the joint prediction of their component measures.

Given that I predicted specific directions in effects for my dependent agreement variables (i.e., both the LMX and SLMX scores would increase), I followed Edwards (1995) suggestion and used multivariate regression analysis, using Wilks'  $\Lambda$  and its associated  $F$ -test. As noted previously, Wilks'  $\Lambda$  is a multivariate measure of significance. It measures group differences over several variables. Lambda ranges between 0 and 1, with values close to 0 indicating the group means are different and values close to 1 indicating that group means are not different. When  $\Lambda$  equals 1, all means are the same. Small values indicate that group means differ. The smaller the Wilks'  $\Lambda$ , the larger the multivariate  $F$  statistic, and therefore the more significant the difference. In other words, Wilks'  $\Lambda$  is a likelihood ratio criterion (Johnson & Wichern, 2002). It is the ratio of the within-groups sum of squares to the total sum of squares. It is a descriptive, not an inferential statistic. If the test is significant, follow-up analyses must be performed. This includes  $t$ -tests for each dependent agreement variable. The generic equations are:

$$Y_1 = b_{10} + b_{11}X_1 + \dots + b_{1q}X_q + e_1 \tag{1}$$

$$Y_2 = b_{20} + b_{21}X_1 + \dots + b_{2q}X_q + e_2 \quad (2)$$

The equations for hypotheses 4-10 in this dissertation are:

$$1. \text{ LMX scale score} = b_{10} + b_{11} \text{ Cooperative Communication} + b_{12} \text{ Supervisor Feedback to Subordinate} + b_{13} \text{ Subordinate Feedback to Supervisor} + b_{14} \text{ Supervisor Seeks Feedback} + b_{15} \text{ Subordinate Seeks Feedback} + b_{16} \text{ Role Clarity} + b_{17} \text{ Role Conflict} + e_1 \quad (3)$$

$$2. \text{ SLMX scale score} = b_{20} + b_{21} \text{ Cooperative Communication} + b_{22} \text{ Supervisor Feedback to Subordinate} + b_{23} \text{ Subordinate Feedback to Supervisor} + b_{24} \text{ Supervisor Seeks Feedback} + b_{25} \text{ Subordinate Seeks Feedback} + b_{26} \text{ Role Clarity} + b_{27} \text{ Role Conflict} + e_1 \quad (4)$$

Multivariate multiple regression maintains the conceptual distinctions between the components of congruence measures. It reveals the directions and relative magnitudes of the relationships between independent variables and the components of congruence measures. To demonstrate support for my hypotheses, the unstandardized estimated beta coefficients for these two equations would all be positive, except for role conflict, which would be negative.

#### Agreement Analyses of Independent Variables (Hypotheses 1-3)

Congruence, or similarity, between supervisor and subordinate relational demography, supervisor and subordinate work value similarity, and supervisor and subordinate perceived similarity was analyzed with polynomial regression procedures based on response surface methodology. This procedure was recommended by Edwards (1993), and is built on the belief that the relationship between congruence and an outcome should be viewed in terms of a three dimensional response surface with the

shape of the profile being pre-specified. As discussed below, according to my hypotheses, the profile that I predict is an inverted U-shaped surface. The supervisor-subordinate perceptions of their LMX relationship would be the most congruent when their relational demography is the most similar; when supervisor-subordinate perceived similarity is at its height, and when a supervisor's work values correspond to a subordinate's work values.

Edwards also recommended that the constraints implied by traditional fit indices be considered a set of hypotheses to be tested. Once these hypotheses are tested, if the hypotheses are confirmed, this would lend support to the conceptual model being proposed. He advises using a polynomial regression procedure because it simultaneously considers the contribution of the main effects of the two components of fit and their interactive relationship as a predictor. This addresses the concern that difference scores obscure the relative contributions of constituent variables. The unstandardized estimated coefficients from the polynomial regression equation are then used to generate three-dimensional surface graphs of the relationship between two congruence measures and the outcome. These graphs can be used to examine the precise nature of congruence relationships. The formulae Edwards suggests are fairly straightforward, but the calculation of main effects becomes cumbersome because as the number of variables (i.e., the number of elements to be fitted in the profile) increases, sample size requirements may become quite high.

#### Polynomial Regression

This technique begins with the selection of a functional form of the conceptual model that best fits the underlying data, and then identifies constrained and unconstrained

regression equations (Edwards & Parry, 1993). The effects of congruence are analyzed using polynomial regression equations containing separate measures of both components, and then adding in the higher-order terms (e.g., both the squares of the two measures and their product) needed to illustrate the shape of the hypothesized relationship.

Edwards's technique addresses some of the previously noted difference score limitations (Kristof, 1996). It does, however, pose some concerns of its own. A high degree of multicollinearity may result from expanding the equations. Another concern was noted by Tisak and Smith (Bedeian et al., 1994): Difference scores may represent something conceptually different than their components. Kristof (1996, p. 17) asserted, "If this is true, Edwards' technique of analyzing the component parts does not address the same construct as would analyzing a difference score." These concerns, however, appear to be less crucial than those raised against difference scores. For example, the issue of construct identity could be discussed in the theoretical framework underpinning any research endeavor. It seems that since Edwards' procedure allows greater precision in specifying and testing congruent relationships, this should be the more important criterion.

Edwards' procedure is based on three principles (Edwards, 1993):

1. The relationship between two variables and an outcome should be considered in three dimensions.
2. This relationship should be viewed as a three-dimensional response surface.
3. Constraints should be tested as hypotheses, not imposed.



This procedure requires the specification of the functional form of the conceptual model that is expected to best suit one's data. In this dissertation, as noted above, I propose an inverted U-shaped relationship between perceptions of LMX and each of the predictor variables. Accordingly, if my hypotheses are supported, the three dimensional response surface graphs generated by my data for each of the first three hypotheses would look something like Figure 1: The more similar in work values a supervisor and subordinate are, the more favorable the subordinate will perceive the LMX relationship. The supervisor-subordinate perceptions of their LMX relationship would be the most congruent when their relational demography is the most similar, supervisor-subordinate perceptions of their LMX relationship would be the most congruent when supervisor-subordinate perceived similarity is at its height, and supervisor-subordinate perceptions of their LMX relationship would be the most congruent when a supervisor's work values correspond to a subordinate's work values. These expected relationships are based, in part, on viewing LMX as a continuum of contractual to extra-contractual relationships. Previous research that predicted similar curvilinear effects for congruence calculated the squared difference between the two components (Edwards, 1993). This also suggests that bigger differences should be weighted more heavily than smaller differences. For example, Tsui and O'Reilly (1989) operationalized relational demography as the squared difference between the demographic measures they obtained from supervisor-subordinate dyads. Edwards' approach begins with the view that the regression equation to represent the squared difference is:

$$Z = b_0 + b_1 (X - Y)^2 + e \quad (5)$$

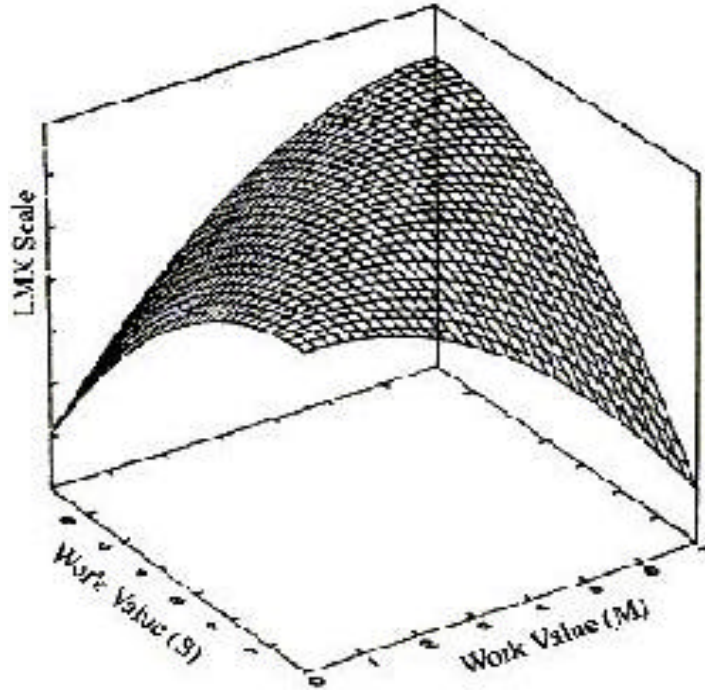


Figure 1. Inverted U-shape Model.

S = Supervisor; M = Subordinate

Edwards acknowledges that this equation does reflect the combined effects of the three variables, but because they are confounded, it is impossible to determine their relative contribution. He also cautioned that most tests of squared differences are incomplete because they do not evaluate the implied constraints. If the regression equation is then expanded, the equation:

$$Z = b_0 + b_1 (X-Y)^2 + e \quad (5)$$

becomes:

$$Z = b_0 + b_1 X^2 - 2b_2 XY + b_3 Y^2 + e, \quad (6)$$

and this should then be compared to the quadratic equation:

$$Z = b_0 + b_1X + b_2Y + b_3X^2 + b_4XY + b_5Y^2 + e \quad (7)$$

This comparison demonstrates that the squared difference imposes the following constraints, which should be tested:

1. The coefficients on  $X^2$  and  $Y^2$  are equal.
2. The coefficient on  $XY$  is twice as large as the coefficient on either  $X^2$  or  $Y^2$  and opposite in sign.
3. The coefficients on  $X$  and  $Y$  are zero.

Edwards proposes that the quadratic equation be used to avoid the problems inherent in the squared difference regression equation. Actually, Edwards's procedure includes the identification of both the constrained (i.e., Equation 6, the squared difference equation) and unconstrained (i.e., Equation 7, the quadratic) regression equations that correspond to one's stated hypotheses. For this study, three pairs of equations were identified, one set for each of the first three focal hypotheses (i.e., one set for each of the three variables: relational demography, work values, perceived similarity). An example of an equation pair would be:

$$\text{Constrained} \quad Z = b_0 + b_1L^2 - 2b_2LM + b_3M^2 + e \quad (8)$$

$$\text{Unconstrained} \quad Z = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e \quad (9)$$

Where, for example,  $Z = \text{LMX agreement}$ ;  $L = \text{supervisor work values}$ ;  $M = \text{subordinate work values}$ .

Results consistent with the curvilinear model I hypothesized would include:

1. Significant coefficients on  $L^2$ ,  $LM$ , and  $M^2$ , but not  $L$  or  $M$ .
2. Coefficients on  $L^2$  and  $M^2$  that are not appreciably different.

3. A coefficient on LM that is not appreciably different from twice the negative of the coefficient on either  $L^2$  or  $M^2$ .

Once the appropriate equations are identified and estimated, other tests must be performed. These tests include determining whether the proportion of variance explained by the overall equation is significant and whether the appropriate coefficients are significant and in the hypothesized direction. More emphasis is placed on the variance explained by a set of predictor variables and the pattern of the response surface graph than the significance of specific regression weights, and because the amount of variance explained by the predictor variables is emphasized, testing the increment in the  $R^2$  of the unconstrained equation over the constrained equation is recommended as well (Edwards & Parry, 1993).

Edwards (personal communication, June 22, 2001) suggested, “The relationship between two forms of congruence can be investigated by combining the methods for independent variables (Edwards, 1994; Edwards & Parry, 1993) with methods for dependent variables (Edwards, 1995). Doing so will require you to think through your hypotheses in a more detailed fashion (e.g., for agreement as a dependent variable, you need to consider which person’s score will move in which direction as a function of the independent variables).” I therefore incorporated the polynomial regression equations as the independent predictor variables in the GLM multivariate multiple regression analyses for the three sets of hypotheses that have congruent variables on both sides of the equation.

This means that instead of three sets of equations (one set for each of the three agreement independent variables), I actually calculated six sets of equations. Two sets were calculated for each of the first three hypotheses: one for each of the two dependent variables. For example, looking at the hypotheses relating to work values, I created one equation for  $Z = \text{LMX}$  scale scores and another equation for  $Z = \text{SLMX}$  scale scores. Therefore, the original pair of equations for  $Z = \text{LMX}$  agreement;  $L = \text{supervisor work values}$ ;  $M = \text{subordinate work values}$ :

$$\text{Constrained} \quad Z = b_0 + b_1L^2 - 2b_2LM + b_3M^2 + e \quad (8)$$

$$\text{Unconstrained} \quad Z = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e \quad (9)$$

became two pairs of equations:  $Z = \text{LMX}$  scale score;  $L = \text{supervisor work values}$ ;  $M = \text{subordinate work values}$ :

$$\text{Constrained} \quad Z_{\text{LMX}} = b_0 + b_1L^2 - 2b_2LM + b_3M^2 + e \quad (8a)$$

$$\text{Unconstrained} \quad Z_{\text{LMX}} = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e \quad (9a)$$

and also,  $Z = \text{SLMX}$  scale score;  $L = \text{supervisor work values}$ ;  $M = \text{subordinate work values}$ :

$$\text{Constrained} \quad Z_{\text{SLMX}} = b_0 + b_1L^2 - 2b_2LM + b_3M^2 + e \quad (8b)$$

$$\text{Unconstrained} \quad Z_{\text{SLMX}} = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e \quad (9b)$$

Another way to look at these equations vis-à-vis work value is to compare the constrained equations with the unconstrained equations. In this case, we would look *first* at the constrained equations for both supervisor and subordinate perspectives of their dyadic work relationship as a result of their work values:

$$Z_{\text{LMX}} = b_0 + b_1L^2 - 2b_2LM + b_3M^2 + e \quad (8a)$$

$$Z_{\text{SLMX}} = b_0 + b_1L^2 - 2b_2LM + b_3M^2 + e \quad (8b)$$

and *then* at the unconstrained equations for both supervisor and subordinate perspectives of their dyadic work relationship as a result of their work values:

$$Z_{LMX} = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e \quad (9a)$$

$$Z_{SLMX} = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e \quad (9b)$$

The above procedures, as Edwards (1994) admitted, do not represent congruence in the traditional sense. As Edwards (1994) demonstrated, however, these regression equations, which contain the separate component measures, are mathematically equivalent to the congruence indices previously in use. And, as Edwards stated (1994, p. 91), “This mathematical equivalence also implies a logical equivalence, meaning that hypothesizing a relationship for a congruence index is logically equivalent to hypothesizing a pattern of coefficients for its components.” In other words, because I am hypothesizing a curvilinear relationship such that supervisor-subordinate perceptions of their LMX relationship would agree when their relational demography is the most similar, when supervisor-subordinate perceived similarity is greater, or when a supervisor’s work values match a subordinate’s work values, I am anticipating the pattern of unstandardized regression coefficients associated with the constrained curvilinear model (Equation 8). That is, the results should produce significant coefficients on  $L^2$ , LM, and  $M^2$ , but not L or M; coefficients on  $L^2$  and  $M^2$  that are not notably different from each other and a coefficient on LM that is not notably different from twice the negative of the coefficient on either  $L^2$  or  $M^2$ .

#### Additional Data Analyses

As noted above, there is an ongoing debate regarding the use of difference scores. Thus, for purposes of comparison and full disclosure, I therefore felt it judicious to also

analyze my data using difference scores. I used Ordinary Least Squares (OLS) regression to examine my data. The linear relationships predicted between each of the independent variables and supervisor-subordinate agreement about the nature of their LMX relationship were tested using OLS regression. OLS regression minimizes the sum of the squared errors, thus defining the best regression line (i.e., that line which results in the best prediction of the dependent variable). In that regard, I performed two separate sets of calculations. I calculated both the algebraic difference and the squared difference between the LMX and SLMX scores. I examined the algebraic difference first to determine if there were any variations in the results obtained through multivariate multiple regression analysis and the more traditional difference score approach. I then investigated whether squared differences made a distinction in the results.

## Chapter 4: Results

### Data Analyses

#### Confirmatory Factor Analysis (CFA)

Because many of the variables analyzed were collected from the same source and could be expected to intercorrelate, a confirmatory factor analysis using LISREL 8.30 (S. du Toit, M. du Toit, Joreskog, & Sorbom, 1999) was conducted to determine whether the measures were empirically distinct. This was done separately for supervisor and subordinate responses. If this post hoc procedure indicated a superior fit for a multi-factor model as compared to a one factor “common method” model (Podsakoff & Organ, 1986), it would suggest that common method variance alone did not explain the results (McFarlin & Sweeney, 1992).

Because even models with strong theoretical support are less likely to fit when there are more than thirty indicators (S. du Toit et al., 1999), testlets were constructed for use in the CFA for the subordinate responses rather than the full complement of scale items. Using an approach called the “single factor method” (Landis, Beal, & Tesluk, 2000), a reduced set of indicators was created for each latent variable. In a simulation, Landis et al. (2000) found the single-factor method was among the best methods for producing reduced sets of indicators.

First, separate factor analyses on the items from each measure were conducted. For each measure, indicators were created by pairing the highest-loading item with the lowest-loading item to form a new indicator, the next highest-loading item with the next lowest-loading item to form the next indicator, and so on. Through this process, supervisor feedback was reduced from eight indicators to four, subordinate feedback-



seeking was reduced from five indicators to three, role clarity was reduced from six indicators to three, and role conflict from seven indicators to four.

The results of the CFA appear in Table 4. Along with the fit indices listed below, Table 4 includes  $\chi^2$  results assessing the magnitude of the discrepancy between the sample and fitted covariance matrices (Hu & Bentler, 1995). Three goodness-of-fit indices were used to determine the degree of fit: the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Use of the CFI was recommended by Medsker, Williams, and Holahan (1994) and Gerbing and Anderson (1993). The RMSEA reflects model parsimony in assessing fit (Browne & Cudeck, 1993). Hu and Bentler (1999) recommend that the SRMR be used in conjunction with these other fit indices. To be confident that a good fit exists, the CFI should be greater than .90, the RMSEA less than .08, and the SRMR less than .10 (Vandenberg & Lance, 2000).

The fit indices for the subordinate responses demonstrated that the eight-factor measurement model provided a superior fit as compared with a five-factor or single factor model. As the one factor model is generally likely to provide a poor fit, it has been recommended that theoretically proposed measurement models should be compared to an alternative theoretically plausible model (Williams & Hazer, 1986). In response to this idea, the eight-factor model was compared to a five-factor theoretically plausible model where all the communication and feedback indicators were set to load on the communication latent variable. This five-factor model was chosen because feedback can be considered a subset of communication, and it can be argued that the different forms of feedback and communication conceptually overlap one another. The CFI for the eight-

factor model was .92, compared to .69 for the five-factor model, and .45 for the one-factor model; the RMSEA for the eight-factor model was .065, compared with .15 for the five-factor model, and .21 for the one-factor model; the SRMR for the eight-factor model was .049, compared to .11 for the five-factor model, and .15 for the one-factor model. These results taken as a whole provide support for treating the subordinate response variables as eight distinct variables.

Table 4  
Confirmatory Factor Analysis

Model	$\chi^2$	<i>df</i>	CFI	RMSEA	SRMR
<u>Subordinate survey</u>					
8 factor model	835.48***	349	.92	.07	.05
5 factor model	2911.37***	367	.69	.15	.11
1 factor model	5737.42***	377	.45	.21	.15
<u>Supervisor survey</u>					
3 factor model	477.05***	51	.88	.17	.09
1 factor model	1817.70***	54	.50	.32	.20

\*\*\* $p < .001$

The fit indices for the supervisor responses demonstrated that the three-factor model was a better fit than the single factor model. These were the only two models

compared because there were only three distinct measures, all of which had acceptable  $\alpha$  ratios (and two of the measures had counterparts in the subordinate responses) and consequently, there was no alternative theoretically plausible model. The CFI for the three factor- model was .88, compared with .50 for the one-factor model; the RMSEA for the three-factor model was .17, compared with .32 for the one-factor model; the SRMR for the three- factor model was .09 compared to .20 for the one- factor model. These results taken as a whole provide support for treating the supervisor response variables as three distinct variables.

### Tests of Hypotheses

Tables 5 and 6 report the intercorrelations of the study variables for descriptive purposes. For presentation ease, the demographic variables for Hypothesis 1 are shown in their own table (Table 5), whereas all other study variables appear in another table (Table 6). Overall, as expected, there was a fairly high level of intercorrelations among most of the variables. The correlation between LMX and SLMX scores was .25. This is, as noted above, similar to that found in many other studies. And, as discussed earlier, it has been suggested that since both the LMX and SLMX instruments assessed the same dyad relationship, the correlation is considered fairly low. All of the predictor variables except for the work value variables are significantly correlated with the LMX dependent variable. All of the predictor variables except for the work value variables, role conflict and role clarity are significantly correlated with the SLMX dependent variable. As expected, role clarity and role conflict are negatively correlated. The communication and feedback variables, except for the supervisor asking for feedback on her own performance, are all intercorrelated.

Table 5

## Descriptive Statistics &amp; Intercorrelations: Demographic Information, Hypothesis 1

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. LMX	3.99	.66	1.00	.25**	-.06	.05	.11*	.04	-.13*	.08	.03	-.08	.02	.13*
2. SLMX	4.08	.56		1.00	-.05	.04	.10	.11	-.06	.06	.08	-.20**	.21**	.27**
3. Sex	.20	.40			1.00	-.14*	-.02	.10	.31**	-.12*	.09	-.00	-.02	.01
4. Race	.69	.46				1.00	-.09	.24**	-.09	.48**	-.15**	.28**	-.06	-.08
5. Age	2.71	.79					1.00	-.10	.09	-.06	.22**	.05	.58**	.39**
6. Edu	2.77	.93						1.00	-.03	.30**	-.10	.27**	-.05	-.06
7. L Sex	.37	.46							1.00	-.05	-.00	.19*	.11	-.01
8. L Race	.71	.46								1.00	-.10**	.32**	-.10	-.15*
9. L Age	3.06	.73									1.00	-.24**	.28**	.38**
10. L Edu	3.15	1.09										1.00	.09	-.04
11. Orgten	3.21	1.47											1.00	.70**
12. Supten	2.40	1.30												1.00

Note. L = Supervisor responses. Listwise  $n = 302$ . \* $p < .05$ . \*\* $p < .01$

Table 6

Descriptive Statistics &amp; Intercorrelations: Variables, Hypotheses 2 – 10

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
1. LMX	3.99	.66		.25	.69	.28	.05	.09	.53	.69	.50	.20	.36	.48	-.25
2. SLMX	4.08	.56			.27	.74	.01	.11	.18	.21	.23	.46	.15	.02	.07
3. Subordinate Perceived Similarity	3.54	.87				.30	.08	-.06	.52	.62	.52	.17	.31	.34	.19
4. Supervisor Perceived Similarity	3.48	.91					-.02	.12	.19	.19	.23	.54	.09	.05	-.12
5. Subordinate Work Value	2.99	.78						.11	-.13	.02	.06	.03	.07	.05	.16
6. Supervisor Work Value	2.91	.81							-.16	-.12	-.07	.11	.03	.06	.15
7. Cooperative Communication	3.93	.72								.48	.26	.04	.18	.29	-.50
8. Supervisor Feedback	3.73	.73									.62	.12	.44	.38	-.21
9. Subordinate Feedback	3.35	.85										.16	.46	.30	-.06
10. Supervisor Seeks Feedback	3.35	.82											.11	.13	.08
11. Subordinate Seeks Feedback	3.43	.79												.20	.03
12. Role Clarity	4.16	.52													-.27
13. Role Conflict	2.62	.77													

Note. *n* = ranges from 302-329. When  $r > .12$ ,  $p < .05$ .

### Hypotheses 1-3

These three hypotheses were examined using polynomial regression analysis within the multivariate multiple regression framework. Six sets of equations were created. The first two sets of equations were calculated to determine the relationship of the two dependent variables, LMX and SLMX, to the demographic variables. First, the constrained equation was calculated by regressing the two dependent variables (LMX and SLMX) on all the terms for relational demography simultaneously. Because both gender and race were coded as dichotomous variables (0, 1), the simple and squared terms of each were the same, and thus could not both enter the polynomial regression equation. Only the simple term was included, the squared term was left out. This first set of equations can be depicted as:

$$Z_{LMX} = b_0 + b_1L^2 - 2b_2LM + b_3M^2 + e \quad (8a)$$

$$Z_{SLMX} = b_0 + b_1L^2 - 2b_2LM + b_3M^2 + e \quad (8b)$$

Then the unconstrained equation was calculated in the same way, by regressing the two dependent variables (LMX and SLMX) on all the terms for relational demography simultaneously. Thus the second set of equations can be depicted as:

$$Z_{LMX} = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e \quad (9a)$$

$$Z_{SLMX} = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e \quad (9b)$$

The next two sets of equations considered the relationship of work value similarity to the dependent variables. First, the constrained equation was calculated by regressing the two dependent variables (LMX and SLMX) on all the terms for work value simultaneously (Equations 8a and 8b). Then the unconstrained equation was calculated in the same way, by regressing the two dependent variables (LMX and SLMX) on all the

terms for work value simultaneously (Equations 9a and 9b). This same process was followed for the last two sets of equations. First, the constrained equation was calculated by regressing the two dependent variables (LMX and SLMX) on all the terms for perceived similarity simultaneously (Equations 8a and 8b). Then the unconstrained equation was calculated in the same way, by regressing the two dependent variables (LMX and SLMX) on all the terms for perceived similarity simultaneously (Equations 9a and 9b).

Next, six overall Wilks'  $\Lambda$  tests were executed, one for each of the six sets of equations. Wilks'  $\Lambda$  is an omnibus measure which tests for differences between the groups; therefore, a significant Wilks'  $\Lambda$  would indicate that the two equations in a set differentially predict the dependent variables. In this instance, the dependent variables are associated with an identical set of predictor variables, and these were the basis for defining Wilks'  $\Lambda$ . Consequently, the overall Wilks'  $\Lambda$  must be significant before we look at the components. In view of the fact that the overall Wilks'  $\Lambda$  tests for the two actual similarity variables (relational demography and work values) were not significant for either the constrained or the unconstrained equations, no further analyses for these hypotheses were performed. Neither of the two actual similarity hypotheses (Hypothesis 1: relational demography nor Hypothesis 2: work value similarity) was supported.

Though Wilks'  $\Lambda$  was not significant for the constrained perceived similarity equation, it was significant for the unconstrained equation for perceived similarity ( $\Lambda = .25, p < .001$ ). The next step then is to look at the components of the unconstrained equation to see if there are differences among the two dependent variables (LMX and SLMX). As can be seen in Table 7, the only regression coefficient that was significant

was the one for the supervisor’s perception of similarity with regard to SLMX. These results are inconsistent with the curvilinear model hypothesized, and are difficult to interpret. To support the hypothesis, there should be significant coefficients on  $L^2$ , LM, and  $M^2$ , but not L or M; coefficients on  $L^2$  and  $M^2$  that are not notably different from one another; and the coefficient on LM would not be notably different from twice the negative of the coefficient on either  $L^2$  or  $M^2$ . In this instance, the only significant coefficient was on L. When the control variables (race, age, organizational and supervisor tenure) were entered into the equations, there were no significant changes in the results.

Table 7

Multivariate Regression Results for Hypothesis 2: Unconstrained Equation

<u>Independent Variable:</u>	<u>Dependent Variable:</u>			<u>Dependent Variable:</u>			
	<u>Perceived Similarity</u>	<u>LMX</u>			<u>SLMX</u>		
	Wilks’ $\Lambda$	<i>b</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>t</i>	<i>p</i>
L	.97**	-.09	-.49	.62	.48	3.15	.01**
M	.99	.28	1.43	.16	.11	.71	.48
L*M	.99	.01	.32	.75	-.01	-1.44	.15
$L^2$	.99	.02	.57	.57	.01	.82	.41
$M^2$	.99	.03	1.00	.32	.01	.44	.66

*Note.* Overall Wilks’  $\Lambda = .25, p < .01$ . *b* represents unstandardized regression coefficients for equations with all predictors entered simultaneously. L = supervisor’s perception of similarity; M = employee’s perception of similarity.  $n = 313$ . \*\*  $p < .01$



As mentioned above, once the appropriate equations are identified and estimated, other tests must be performed, and the response surface plotted. These tests include determining whether the proportion of variance explained by the equation is significant. Therefore, the adjusted  $R^2$ s for the unconstrained perceived similarity equations were examined, and both were significant ( $Z_{LMX} = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e$ , has an adjusted  $R^2 = .48$  and  $Z_{SLMX} = b_0 + b_1L + b_2M + b_3L^2 + b_4LM + b_5M^2 + e$ , has an adjusted  $R^2 = .54$ .)

To assist with the interpretation, and to visually demonstrate the independent effects of each component (i.e., the independent effects of the supervisor's perception of similarity with the subordinate and the subordinate's perception of similarity with the supervisor) on each of the dependent variables, I plotted the response surfaces of the unconstrained equations for perceived similarity (Figures 2 and 3). There are two graphs for perceived similarity, one for each of the dependent variables. I also plotted the response surfaces of the unconstrained equation for work values (Figures 4 and 5) to demonstrate what the response surfaces would look like when Wilks'  $\Lambda$  is not significant. There are two graphs for work value similarity, one for each of the dependent variables. The plots included all terms, both significant and non-significant.

Figure 2 represents the response surface for the relationship between the supervisor's and the subordinate's perceptions of similarity with each other and to the subordinate's perception of her LMX relationship with her supervisor. The curvilinear relationship hypothesized was not significant, yet one can visually detect that there appears to be a slight, though non-significant, linear relationship between the subordinate's perceptions of similarity and her perception of her LMX relationship with

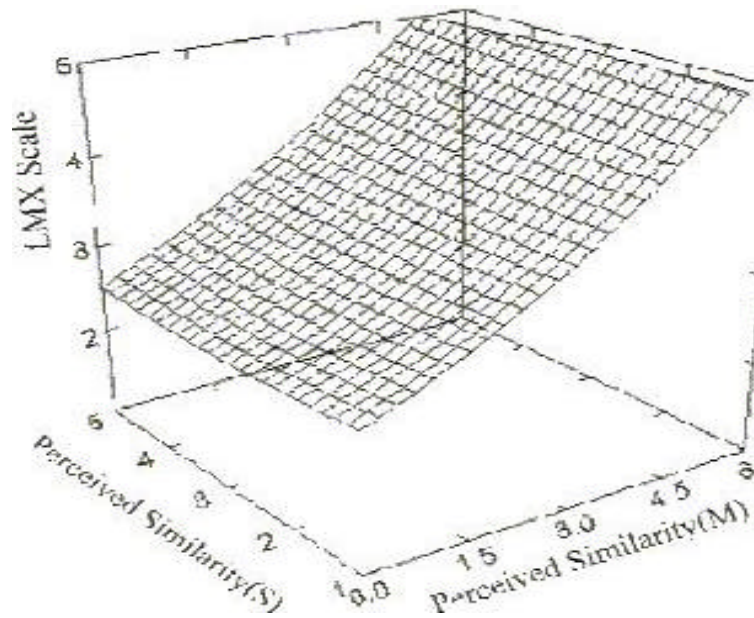


Figure 2. Response surface graph of LMX and Perceived Similarity.

S = Supervisor; M = Subordinate

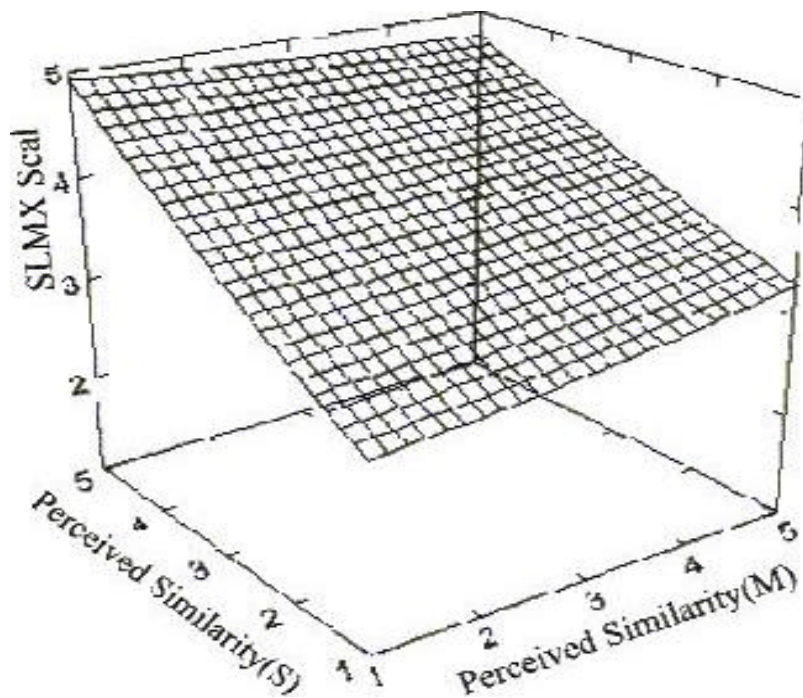


Figure 3. Response surface graph of SLMX and Perceived Similarity.

S = Supervisor; M = Subordinate

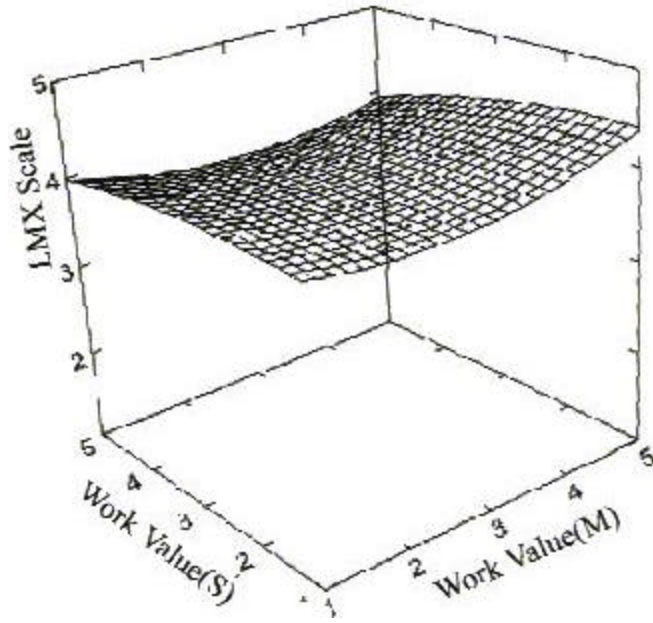


Figure 4. Response surface graph of LMX and Work Values.

S = Supervisor; M = Subordinate

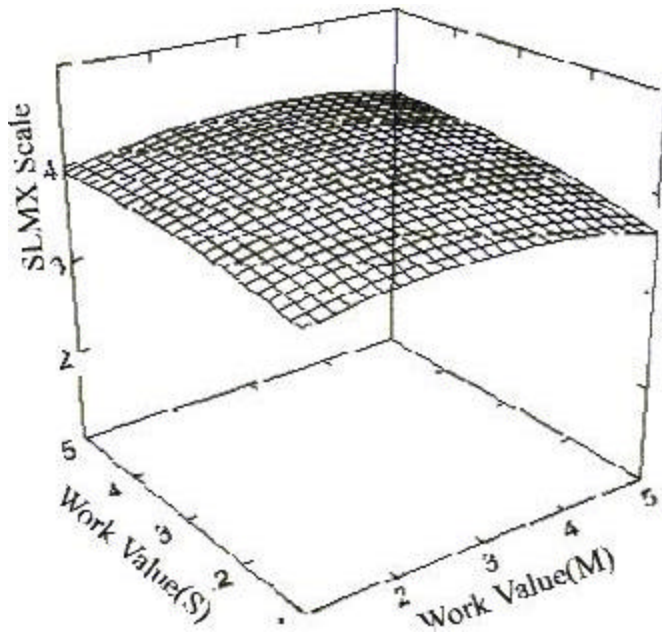


Figure 5. Response surface graph of SLMX and Work Values.

S = Supervisor; M = Subordinate

her supervisor. Figure 3 graphs the response surface for the relationship between the supervisor's and the subordinate's perceptions of similarity with each other and the supervisor's perception of the LMX relationship (SLMX). It is apparent the role of the supervisor's perception regarding similarity plays a much stronger role in this graph than in Figure 2. The graph suggests a main effect for the supervisor's perception of similarity and the SLMX relationship by the elevated level of the surface across the "floor" of the graph. In contrast, Figures 4 and 5 show the lack of a relationship between work values and LMX perceptual agreement. The surface is relatively flat, almost a plane, in both figures, thus indicating no relationship.

#### Hypotheses 4-10

Table 8 contains a summary of the results for the remaining hypotheses. These hypotheses were examined using multivariate multiple regression analysis, with all of the seven study variables and the four demographic control variables (race, age, organizational tenure, supervisor tenure) entered in the equation simultaneously, as per Equations 3 and 4. The overall Wilks'  $\Lambda$  for the equation is .31 ( $p < .001$ ). Four of the feedback/communication hypotheses were either fully (H7 & H9) or partially supported (H4 & H5), as shown in Table 8. One hypothesis (H6) was marginally ( $p < .10$ ) partially supported, while two of the hypotheses (H8 & H10) were not supported.

For purposes of interpretation, Edwards (2001) suggests separating each hypothesis into its LMX and SLMX components. For example, one of the hypotheses supported is H7: The more frequently a supervisor seeks feedback from a subordinate about the supervisor's own job performance, the more their LMX perceptions will agree.

Table 8

## Multivariate Regression Results for Hypotheses 4-10

Independent Variable (Hypotheses)	Wilks $\Lambda$	<u>Dependent Variable:</u> <u>LMX</u>			<u>Dependent Variable:</u> <u>SLMX</u>		
		<i>b</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>t</i>	<i>p</i>
Cooperative							
Communication (H4)	.93**	.21	4.45	.01	.08	1.57	.12
Supervisor Feedback (H5)	.82**	.40	8.01	.01	.04	.72	.47
Subordinate Feedback							
(H6)	.98*	.07	1.68	.09	.07	1.49	.14
Supervisor Seeks							
Feedback (H7)	.81**	.06	1.98	.05	.29	8.08	.01
Subordinate Seeks							
Feedback (H8)	.99	.01	.35	.72	.03	.68	.50
Role Clarity (H9)	.89**	.28	5.14	.01	-.17	-2.82	.01
Role Conflict (H10)	.99	.01	.17	.86	-.06	-1.43	.15

*Note.* *b* represents unstandardized regression coefficients for equations with all predictors entered simultaneously.

\*\*  $p < .01$ ; \* $p < .10$ .

Teasing apart H7 yields two component hypotheses: a) the more frequently a supervisor seeks job performance feedback from a subordinate, the higher the subordinate will perceive the LMX relationship; b) the more frequently a supervisor seeks job performance feedback from a subordinate, the higher the supervisor will perceive the LMX relationship (SLMX). Looking at Table 8, one can see that the Wilks'  $\Lambda$  for the relationship of the two dependent variables (LMX and SLMX) with the independent variable (supervisors asking for feedback from their subordinates) is .81 ( $p < .01$ ). After considering Wilks'  $\Lambda$ , one next looks at the regression coefficients. The unstandardized regression coefficients are .06 ( $p < .05$ ) and .29 ( $p < .01$ ) for LMX and SLMX respectively. These factors indicate that this hypothesis was fully supported. It is interesting to note that the  $b$  associated with SLMX is greater in magnitude (in a descriptive sense), than that found in association with LMX.

The hypotheses dealing with subordinates' perceptions of both cooperative communication (H4) and unsolicited feedback from their supervisors about the subordinates' own job performance (H5) were only partially supported, and the hypothesis dealing with subordinates' perceptions of their offering unsolicited feedback to their supervisors about the supervisors' own job performance (H6) was marginally supported. These three variables are related in the direction hypothesized to the subordinate's perception of the LMX relationship, but not to the supervisor's perception (SLMX) of the relationship. That is, neither increasing cooperative communication nor increasing unsolicited feedback from either the supervisor or subordinate is related to perceptual agreement about the dyadic LMX relationship. However, increasing cooperative communication and increasing unsolicited feedback from either the

supervisor or subordinate are related to the subordinate's own perceptions about the LMX relationship.

Another hypothesis which is partially supported is H9: Role clarity will be positively related to the level of perceptual agreement about the LMX relationship. Teasing apart H9 yields two component hypotheses: a) the more clearly subordinates perceive their roles, the more favorably they will perceive the LMX relationship; b) the more clearly subordinates perceive their roles, the more favorably their supervisors will perceive the LMX relationship (SLMX). Only the component hypothesis that the more clearly subordinates perceive their roles, the more favorably they will perceive the LMX relationship was supported. Examining Table 8, one can see that the Wilks'  $\Lambda$  for the relationship of the two dependent variables (LMX and SLMX) with the independent variable (subordinate's perception of role clarity) is .89 ( $p < .01$ ). After considering Wilks'  $\Lambda$ , one next looks at the regression coefficients. The unstandardized regression coefficients are .28 ( $p < .01$ ) and -.17 ( $p < .01$ ) for LMX and SLMX respectively. In this instance,  $b$  is larger for LMX than SLMX, opposite the pattern found for Hypothesis 7.

Two hypotheses were not supported: The more frequently a subordinate seeks feedback from a supervisor about the subordinate's own job performance, the more their LMX perceptions will agree and role conflict will be negatively related to the level of perceptual agreement about the LMX relationship. There appears to be no relationship either between subordinates requesting feedback and LMX perceptual agreement and role conflict and LMX perceptual agreement.

### Additional Analyses: Difference Scores

As noted in Chapter 3, I made the decision to analyze my data using multivariate regression analysis (as recommended by Edwards). For expositional purposes, I also performed some more traditional difference score analyses. I calculated both the algebraic difference and the squared difference between the LMX and SLMX scores. The algebraic difference approach was examined first to determine if there were any variations in the results obtained through multivariate multiple regression analysis and the more traditional difference score approach. Then, in line with the logic of the squared difference model, I investigated whether squared differences made a distinction in the results. The same four demographic variables (race, age, organizational and supervisor tenure) were entered as control variables.

Tables 9 and 10 summarize, respectively, the results of the OLS regression for LMX/SLMX algebraic difference and squared difference scores. There was no significant relationship between perceptual agreement about the dyadic LMX relationship and relational demography (H1) and subordinate feedback up to the supervisor (H6). Only one hypothesis was supported in both OLS regressions: perceived similarity (H2). One hypothesis, unsolicited supervisor feedback (H5) was supported in the algebraic difference OLS regression and marginally supported in the squared difference OLS regression. The remaining six hypotheses had mixed results. Four hypotheses were supported in the OLS regression using algebraic difference scores: similarity in work values (H3), supervisor feedback-seeking (H7), and role clarity (H9). Two hypotheses, subordinate feedback-seeking (H8) and role conflict (H10), were supported in the OLS squared difference regression.



Table 9

## OLS Regression Results for LMX/SLMX Algebraic Difference Scores

Independent Variable	<i>b</i>	<i>SE</i>	<i>B</i>	<i>t</i>	<i>p</i>
Relational Demography (H1)	.03	.03	.07	1.07	.29
Perceived Similarity (H2)	-.42	.03	-.58	-12.60	.01
Work Values (H3)	-.11	.04	-.16	-2.78	.01
Cooperative Communication (H4)	-.12	.06	-.12	-1.87	.06
Supervisor Feedback (H5)	-.36	.07	-.35	-5.15	.01
Subordinate Feedback (H6)	.01	.06	-.01	-.01	.99
Supervisor Seeks Feedback (H7)	.22	.05	.24	4.90	.01
Subordinate Seeks Feedback (H8)	.02	.05	.02	.39	.70
Role Clarity (H9)	-.45	.08	-.31	-5.91	.01
Role Conflict (H10)	-.07	.06	-.08	-1.35	.18

*Note.*  $n = 306$ .

Table 10

## OLS Regression Results for LMX/SLMX Squared Difference Scores

Independent Variable	<i>b</i>	<i>SE</i>	<i>B</i>	<i>t</i>	<i>p</i>
Relational Demography (H1)	.01	.04	.02	.30	.76
Perceived Similarity (H2)	.19	.03	.35	6.43	.01
Work Values (H3)	.03	.03	.07	1.18	.24
Cooperative Communication (H4)	-.11	.09	-.09	-1.20	.23
Supervisor Feedback (H5)	-.20	.10	-.16	-1.93	.06
Subordinate Feedback (H6)	.04	.08	.04	.49	.63
Supervisor Seeks Feedback (H7)	-.01	.07	-.01	-.24	.81
Subordinate Seeks Feedback (H8)	-.15	.08	-.13	-1.93	.05
Role Clarity (H9)	.04	.11	.02	.33	.74
Role Conflict (H10)	.18	.09	.14	2.07	.04

*Note.*  $n = 306$ .

## Summary of Results

I examined my 10 hypotheses in several different ways. I first tested the hypotheses using the multivariate multiple regression analysis framework recommended by Edwards. Then, for expositional purposes, I tested these same hypotheses using two different types of difference scores in OLS regression analyses.

One hypothesis (H7) was supported: The more frequently a supervisor seeks feedback from a subordinate about the supervisor's own job performance, the more their LMX perceptions will agree. Four hypotheses were partially supported (H4, H5, H6, & H9): There is a relationship between increasing cooperative communication and increasing unsolicited feedback from both the supervisor and the subordinate and increasing the subordinate's perceptions of role clarity in the direction predicted only for the subordinate's perceptions of the LMX relationship. There was no significant relationship between cooperative communication or unsolicited feedback or role clarity and LMX perceptual agreement. Five hypotheses were not supported. There is no relationship between the subordinate requesting feedback from the supervisor and LMX perceptual agreement. There is no relationship between role conflict and LMX perceptual agreement. None of the three similarity hypotheses (H1: relational demography, H2: perceived similarity, and H3: work value similarity) were supported.

There were several differences in the results obtained by the three different data analytic techniques. Only one of my hypotheses, relational demography (H1), was unsupported in all three data analyses. Work value similarity (H3) was supported only in the algebraic difference score regression analysis. Two hypotheses (H7, supervisor seeking feedback from the subordinate & H9, role clarity) were supported in the

multivariate regression and algebraic difference score OLS regression analyses, but not in the squared difference score OLS regression. Cooperative communication (H4) was marginally supported in the multivariate and algebraic difference score regression analyses, but not in the squared difference regression analysis. Following a similar pattern, two hypotheses (H8, subordinate seeking feedback from the supervisor & H10, role conflict) were supported only in the squared difference score OLS regression analysis, but not in the other two data analytic techniques. Hypothesis 6 (the subordinate seeking feedback) was marginally related to the subordinate's perception of the LMX relationship in the multivariate regression analysis, but was not supported in any of the other analyses. My second hypothesis (perceived similarity) was supported in both difference score analyses. The multivariate framework indicated that there was only a main effect between the supervisor's perception of similarity with the subordinate and the supervisor's perception of the LMX relationship (SLMX) with that subordinate. The role of unsolicited supervisor feedback to the subordinate (H5) was supported in the algebraic difference score regression analysis and marginally supported in the squared difference score regression analysis, yet the multivariate regression analysis revealed that supervisor feedback is positively related to the subordinate's perception of the LMX relationship, but not to the supervisor's perception of the relationship.

It therefore appears that Edwards' assumptions are supported, and that both of the difference score approaches obscure precise relationships, and the results obtained can consequently be quite ambiguous to interpret. The combination of multivariate multiple regression, polynomial regression, and response surface methodologies are all

indispensable in teasing apart the varying influences of congruent components on each other and on other variables.

## Chapter 5: Discussion

### Results

The purpose of this dissertation was to examine theoretically relevant antecedents of supervisor-subordinate perceptual agreement regarding the nature of their dyadic LMX relationship. Much LMX research is predicated upon the assumption that the quality of the supervisor-subordinate relationship is predictive of important organizational and individual outcomes. More recent research finds that leader-member agreement in perception about the nature of the relationship is also important. Three categories of antecedents were investigated: actual similarity between supervisors and their subordinates; perceived similarity between supervisors and their subordinates; communication between supervisors and their subordinates. In general, the results provided support for the role that communication and feedback play in both determining the quality of the LMX relationship between supervisor and subordinate and in supervisor-subordinate perceptual agreement regarding the nature of that dyadic LMX relationship. Perhaps stronger relationships were not found because supervisors and subordinates might not only view the same events differently, but they might be observing different facets of those events (Borman, 1974). Additionally, the results indicated that though actual similarity was not related to supervisor-subordinate agreement regarding the nature of their relationship, supervisors' perception of similarity with their subordinates was related to the supervisors' perceptions of their supervisor-subordinate relationships. These findings are discussed below.

## Similarity and LMX Agreement

Two types of actual similarity were investigated: demographic similarity and similarity in work values. There was no support for either type of similarity being related to supervisor-subordinate perceptual agreement. Perceived similarity was also examined, and though this hypothesis was not fully supported, a main effect was found.

### Demographic Similarity

Social identity theory suggested that the more demographically similar the dyad members are, the more similar they would be in their attitudes, beliefs, and perceptions. Because demographically similar individuals are thought to share similar backgrounds and experiences, they are more likely to have been treated in a similar fashion, and are more likely to react to situations similarly (Chatman et al., 1998). Though previous research indicated that demographic characteristics themselves did not seem to predict leader-member exchange, it was believed that relational demography might (Bauer & Green, 1996; Gerstner & Day, 1997). It had been demonstrated that at the dyad level, relational demographic similarity can have a greater effect on dependent variables than individual-level characteristics (Liden et al., 1993). Prior research has demonstrated that demographics have significant effects on perceptions, including how supervisors view their subordinates, how subordinates perceive their roles in an organization, and how organizational members interact with one another (e.g., O'Reilly et al., 1989; Tsui & O'Reilly, 1989; Zenger & Lawrence, 1989).

In general, this research suggests that demographic similarity is related to perceptual agreement. As was noted, however, previous empirical LMX/relational demographic similarity research found no significant relationships between relational

demography and the nature of the LMX relationship (e.g., Green et al., 1996; Liden et al., 1993). In retrospect, I believe that my reasons for suspecting that demographic similarity would lead to LMX perceptual agreement were erroneous. Perhaps, despite the logic of the arguments regarding relational demography and the shared perceptions regarding the supervisor-subordinate relationship, other variables were more important. Conceivably, the more proximal communication variables overrode the more distal demographic variables. In this sample there were many longer term supervisor-subordinate relationships (about two thirds of the employees had been with their supervisors for over a year), and prior research (e.g., Harrison, Price, & Bell, 1998) has indicated that demographic variables have more of an influence in the beginning stages of a relationship, and that over time, people base their perceptions more on observed behavior.

Additionally, previous research also suggested that supervisors and their subordinates who were demographically dissimilar had less frequent communication. A recent study by McNeilly and Russ (2000) found that communication frequency mediates the significance of relational demography on outcome variables. This dissertation found that subordinates view their LMX relationships more favorably when there are higher levels of cooperative communication, suggesting that communication might outweigh the effects of relational demography.

#### Work Value Similarity

There was no support for the hypothesis that similarity in work values is related to similarity in perceptions about the dyadic LMX relationship. When supervisors and subordinates share similar value systems they tend to perceive the same external stimuli



in similar ways and to behave in similar ways (Meglino & Ravlin, 1998). I therefore felt that it was plausible to expect that supervisors and subordinates who share similar work values would perceive the external stimuli relating to the nature of their LMX relationship in similar ways and thus perceive that relationship similarly. Most previous research focused on perceived value similarity, not as here, actual work value similarity. For example, Steiner (1988) and Steiner and Dobbins (1989) found that when there was perceived work value similarity, more extra-contractual relationships were formed, but that subordinate work values were a more significant predictor. Perhaps, as with relational demography, perceived value similarity is a stronger construct than actual value similarity. Also, there are many types of work values, and it might be that my measurement of work values was inadequate. A recent monograph (Miller et al., 2001) discussed the development of a new measure of work values: the Multidimensional Work Ethic Profile. This might be a more appropriate measure, yet it was not yet available when my research data were being collected. As discussed in Chapter 3, there were problems with my work value scale. Perhaps a more appropriate measure of work values would have indicated a relationship between similarity in work values and perceptual agreement regarding the LMX relationship.

#### Perceived Similarity

The hypothesis that the more similar dyad members perceive themselves to be, the more they agree about the nature of their LMX relationship was only partially supported in the multivariate framework. More specifically, it appears that there is a main effect for the relationship between a supervisor's perception of being similar to a subordinate and the supervisor's perception about the LMX relationship (SLMX), but no

relationship between the subordinate's perception of being similar to the supervisor and the subordinate's perception about the LMX relationship. The multivariate framework allows for the disentanglement of the component parts and the realization that one component (the supervisor's perceptions, both about the subordinate's relative similarity and the supervisor's perception of that SLMX relationship) is responsible for the result. The findings demonstrate that when supervisors perceive that they are similar in outlook to their subordinates, and believe that they and their subordinates are similar kinds of people, the supervisors will view their LMX relationships to be favorable. A subordinate's perception of similarity had no significant relationship with either person's perception of their LMX relationship. Previous studies consistently found perceived similarity to be positively related to the nature of LMX (Liden et al., 1993; Liden et al, 1997) and, that perceived similarity is more significantly related to LMX than is demographic similarity (Kim & Organ, 1982; Liden et al., 1993; Turban & Jones, 1988; Wexley & Pulakos, 1983).

### Communication

Communication encompasses many aspects, and in this dissertation I examined several facets of the communication process. The results provide general support for the importance of communication and feedback in LMX perceptual agreement. Five of the communication hypotheses were either fully or partially supported in the multivariate analyses. The multivariate model exposed the differing effects of the predictors on the two components. For example, subordinates' views of cooperative communication and unsolicited supervisor feedback were related only to their perceptions of the LMX relationship, not to their supervisors' perceptions of that dyadic LMX relationship.

It is not surprising that several of the communication variables tended to be more related to LMX than the other variables under investigation. The communication variables are more proximal (i.e., immediate and pertinent), and as people share and obtain more information they are more likely to have accurate information. The communication variables, therefore, are more likely to have a direct relationship with the dependent variable of LMX perceptual agreement than do the more distal variables such as relational demography and work values.

#### Cooperative Communication

The hypothesis (H4) that the more cooperative communication between supervisors and subordinates, the more likely both their LMX/SLMX perceptions will agree was only partially supported. The levels of cooperative communication, as reported by the subordinate, were positively related to the subordinate's perception of the LMX relationship, but not to the supervisor's perception of the relationship. Historically, research on group dynamics (Homans, 1950) has found that increasing levels of communication and interaction among group members results in greater similarity of opinions. More recent studies (Heald et al., 1998; Balser & Stern, 1999) have demonstrated that employees who communicate more often are more likely to have higher levels of perceptual congruence regarding their environment, and that informal communication exchanges between supervisors and subordinates often lead to mutual understanding. For example, researchers found that supervisors and subordinates had greater perceptual congruence on their organization's social structure than coworkers who were not in this reporting relationship (Heald et al., 1998). However, since the

supervisors were not asked about their perceptions about the levels of cooperative communications, it appears that common method variance might be an issue.

### Feedback

Feedback about one's job performance is a subset of communication and involves sharing information about how one person perceives and evaluates another person's behavior (Ashford, 1986). Two of the feedback hypotheses were partially supported, one was fully supported, and one was not supported. The two hypotheses regarding unsolicited feedback, either by the supervisor to the subordinate (H5) or from the subordinate up to the supervisor (H6), were only partially supported. Increasing the levels of unsolicited feedback were positively related to the subordinates' perceptions of the LMX relationship, not to the supervisors' perceptions. Research suggests that providing employees with feedback will close the gap between self- and other- performance ratings (Ashford, 1989; Atwater et al., 1995). As individuals receive more feedback, they become more self-aware (Atwater et al., 1995), and this might lead them to believe that they enjoy a positive LMX relationship with their supervisor. On the other hand, since it is likely that supervisors know that an important part of their job is giving feedback to their subordinates, they might not view this activity as being related to a positive LMX relationship. In fact, a supervisor might perceive that it is a weaker employee who requires more feedback, and thus be hesitant about declaring this type of dyadic relationship as being of high quality.

Another important arena for feedback is upward feedback, that is, subordinates giving feedback to supervisors. Such feedback can provide supervisors with an accurate sense of how their subordinates perceive and evaluate their work, and can give the

supervisors insight as to how they can improve their own performance. And, as also noted in Chapter 2, upward feedback, especially unsolicited upward feedback, is relatively rare. Recent research (Atwater, Waldman, Atwater, & Cartier, 2000) indicates that subordinates are wise to be cautious in providing upward feedback. Supervisors who receive positive feedback from subordinates tend to increase their levels of commitment to that subordinate, but supervisors tend to decrease their levels of commitment to subordinates who give them negative feedback. Perhaps subordinates who feel comfortable enough to relay feedback about their supervisors' performance to their supervisors, would also believe they enjoyed a positive LMX relationship with their supervisors. On the other hand, even though many supervisors might say they encourage feedback, they might not be as receptive to unsolicited upward feedback as they believe they are, and would therefore be hesitant to favorably evaluate the LMX relationships with those subordinates who take them at face value and do give them feedback.

Hypothesis 8, that the more subordinates request feedback from supervisors, the more favorably each will evaluate the LMX relationship was not supported. Feedback from supervisors enables subordinates to determine what are acceptable workplace behaviors and what the supervisors consider acceptable performance. Some supervisors, however, are often loath to provide feedback, especially negative feedback, to their employees (Northcraft & Ashford, 1990). Subordinates who desire feedback from supervisors, who are either unaware of the importance of feedback, or unwilling to provide feedback, do have alternatives. They can observe what is taking place and infer a feedback message and/or they can ask for feedback (Northcraft & Ashford, 1990). The former is definitely a less risky endeavor; when people ask for feedback, they make

themselves vulnerable. It is therefore possible that both supervisors and subordinates have a negative view of subordinates who ask for feedback. Individuals must have trust in their supervisors before asking for feedback. They must believe that the supervisors will give them constructive feedback and that they will not be penalized for revealing their uncertainty and insecurity (Northcraft & Ashford, 1990).

It is interesting to note that the only feedback variable which is positively related to both the supervisor and subordinate perceptions of the LMX relationship is supervisors asking for feedback on their own job performance from their subordinates (H7). This is particularly interesting in light of the partial support for the unsolicited feedback hypotheses and the lack of support for the subordinate requesting feedback hypothesis. It seems reasonable to believe that there must be very high levels of trust between the supervisor and subordinate for the supervisor to even entertain the idea of requesting upward feedback. As discussed above, asking for feedback makes one vulnerable. It would take self-confident supervisors to not only leave themselves open for feedback, but to request feedback. And the subordinates would have to trust that their supervisors really desired the feedback and that there would be no negative repercussions.

It seems plausible to suggest that feedback might be related to LMX perceptual agreement in the same way rating standards are related to performance appraisal ratings. There is significantly higher agreement between self- and supervisory performance appraisal ratings when both raters are taught to use the same standards (Schrader & Steiner, 1996). The use of common standards may be achieved when individuals are instructed as to what the standards are, and then given feedback as to their ability to use these common standards. Structured feedback would give pertinent and specific

information to receivers about work performance and work expectations. It would also let receivers know what providers of the feedback think of the recipients. If both parties believe the work expectations and information are appropriate, it would be analogous to using common standards to achieve performance appraisal rating agreement. If both parties know what types and levels of performance are expected, and are also given feedback as to how well they are achieving these expectations, there might also be higher levels of agreement about the nature of the work relationship between the two parties.

#### Role Clarity and Role Conflict

Many roles are assigned based on an individual's position within an organization (Jackson & Schuler, 1985). Role clarity and role conflict can both be thought of as functions or subsets of communication clarity. However, role clarity was partially supported, while role conflict was not. Because previous research indicated that employees who receive information about aspects of their work environment tend to have more similar perceptions about it than do those employees who do not receive such information (Zalesny & Farace, 1987), it seemed plausible to posit that role clarity would be positively related to LMX perceptual agreement and that role conflict would be negatively related to LMX perceptual agreement. Perhaps role conflict was not significantly related to LMX perceptual agreement because the scale might not reflect only interactions with one's supervisor. Subordinates might feel that it is not their supervisors' "fault" or responsibility if role conflict is experienced in an area such as receiving incompatible requests from other individuals. In fact, in today's workplace, with its emphasis on empowerment and teamwork, ignoring a rule or policy to carry out

an assignment and to work with many different types of groups in many different types of work situations might be viewed as positive factors.

#### Contributions to the Literature

This dissertation has made several contributions to the literature. Gerstner and Day (1997) decried the lack of research on the construct of LMX perceptual agreement, and my dissertation fills this research gap by examining LMX perceptual agreement as a dependent variable and identifies some of the determinants of LMX perceptual agreement. Edwards (1993, 1994, 1995) criticized the use of difference scores as a means to investigate agreement variables. Perceptual agreement in the dissertation was not defined as a difference score. My dependent variable, LMX agreement, was examined using multivariate multiple regression analysis (as Edwards suggested in 1995) by looking at each of its components (LMX and SLMX) and their relationship to each other and to the independent variables. I also followed Edwards suggested analytical techniques when my independent variables were agreement variables, and used polynomial regression analysis rather than difference scores. No other published work in this area has used this type of polynomial regression analysis with both the independent and dependent variables being agreement variables.

The literatures of both leader-member exchange and perceptual agreement have been advanced with the focus on the construct of LMX perceptual agreement. This is one of the few studies wherein data were collected from both supervisors and subordinates using the same instruments. Previous studies have recommended that future studies investigate whether subordinates and their supervisors view subordinate behaviors and assess behavior levels in equal increments (e.g., Wilhelm, Herd, & Steiner, 1993). This



dissertation examined both supervisor and subordinate impressions of their shared relationship.

The communication literature was also advanced. The literature strongly indicated that communication is a key aspect of perceptual agreement, and the results provide additional evidence that communication is indeed a critical element. This dissertation extended these findings to the LMX relationship. There is support for several of the communication hypotheses. There are strong positive relationships between role clarity and supervisor initiated feedback-seeking, on the one hand, and LMX perceptual agreement on the other.

#### Limitations

There are several limitations to this study, and they pose restrictions on interpretations of the results. First, data were collected from employees and supervisors at a single point in time. The use of such cross-sectional data prevents one from making definitive causal inferences. A longitudinal study might provide greater insight into the development of antecedents to LMX perceptual agreement. It might also indicate how these antecedents develop, whether they are stable across time, and so forth. Secondly, because the data are self-reports, they might not accurately reflect either actual behaviors or the frequency of those behaviors. Future research might benefit from third party assessments as well. A neutral third party might even be able to observe behaviors of which the individual participants might not be aware.

There is also the possibility that the results can be explained by same source variance. For example, the results indicate that the subordinate's perceptions of cooperative communication and unsolicited feedback influence only their own

perceptions of the LMX relationship, not that of their supervisors. These perceptions were from the subordinate's perspective only, hence lending credence to a claim of same source variance. For other variables, however, this did not seem to have quite the same effect. For example, only supervisors responded to the survey items regarding their asking for feedback and only subordinates responded to the survey items regarding role clarity, yet there was a significant relationship to both the LMX and SLMX variables. It must be noted, however, that the strength of the effect, as determined by the regression coefficient and *t*-values, points to the possibility of common method variance. Looking at Table 8, one can see that the subordinate predictors are more strongly related to the LMX variable while the supervisor predictor is more strongly related to the SLMX variable. For example, looking at Hypothesis 7, supervisor asks for feedback, the *t* -value for the relationship of the independent variable with LMX is only 1.98, while it is considerably higher at 8.08 for SLMX. And if one looks at Hypothesis 6, subordinate feedback to supervisor, the findings are reversed, with the *t* -value for the relationship of the independent variable with LMX is 1.68, while it is 1.49 for SLMX. Future research must be designed to more clearly delineate the boundaries of responses so as to ensure that the possibility of same source variance is eliminated.

Another area of concern is the potential overlap of the LMX construct and trust. It has been noted that one possible cause of the lack of stronger results regarding the feedback hypotheses might be lack of trust between supervisor and subordinate. Recent research has indicated both that supervisors tend to be a particularly important referent of trust and that LMX and trust are highly correlated,  $r = .69$  (Dirks & Ferrin, 2002). Future research might include trust as an independent variable.

Generalizability is another issue of potential concern. Even though four different organizations in three industries (health care, banking, hotel management) were studied, there were no organizations from the manufacturing sector or from the public sector. More organizations should be studied, especially organizations that differ in their organizational structures and corporate cultures.

It must also be noted again that the LMX measures themselves might not measure that which they purport to measure. As mentioned earlier, it might be appropriate to develop a measurement instrument that can discriminate increments on a contractual/extra-contractual continuum. Additionally, though the PWE measure used to measure an individual's work values is the measure most often used, this dissertation finds that it might be suspect. Perhaps the items in this measure are somewhat dated. Further research is suggested to verify the PWE's current usefulness. At the present time, however, this measure is still the most appropriate because most other existing work value measures are either difficult to administer and score (e.g., ipsative scales, which violate standard statistical assumptions and do not include information vis-à-vis the distance between component measures) or do not specifically focus on individual work values. The new measure of work values, the Multidimensional Work Ethic Profile, (Miller et al., 2001) might be a more appropriate measure, yet it was not available when my research data were being collected.

Despite these limitations, this dissertation made several methodological and theoretical contributions, as noted above. Also, while I realize that the subset of traits and behaviors I have chosen to investigate as potential antecedents does not include all the

variables in the supervisor-subordinate relationship, it does serve as an adequate cross-section and a point of departure for future investigations in this area.

#### Implications for Practice

Most people would agree that good interpersonal relationships enhance the work environment and promote productivity and better customer service (Graen et al., 1982; Scandura & Graen, 1984; Wayne et al., 1997). Because it has previously been determined (e.g., Cogliser et al., 1999) that perceptual agreement regarding the definitions of good interpersonal relationships (e.g., a more extra-contractual leader-member exchange) is important in promoting employee productivity, organizational commitment, job satisfaction, and other employee related organizational outcomes, increasing the likelihood of developing such perceptual agreement could be vital. Identifying some of the causes of agreement would enable organizations to train managers to increase and bolster the positive impact of agreement, and thereby improve employee performance. Since it appears that communication and feedback are positively related to perceptual agreement, perhaps training efforts can be focused on increasing skill levels in these areas. It may be important to raise supervisors' awareness of the function their perceptions of similarity with their subordinates play in their perceptions of the LMX relationship, and to educate them as to how to diminish the potential negative effects of perceived dissimilarity.

One such technique for doing this is to concentrate on supervisor-subordinate communication. More frequent communications might ameliorate some of the supervisors' perceptions of dissimilarity with their subordinates, and vice versa. As people increase their levels of communication, they tend to view one another more

positively and as more similar (Hogg, 1992; Sias, 1996). Training in communication techniques, feedback giving and solicitation techniques, and more explicit communication regarding role and performance expectations would benefit the supervisor-subordinate relationship.

Support for communication and feedback as indicators of LMX perceptual agreement is a noteworthy and valuable finding for practice. It reinforces both common wisdom and previous research findings regarding the importance of maintaining communication in supervisor-subordinate relationships. Communication and feedback are important in developing perceptual agreement regarding the supervisor-subordinate relationship. Perceptual agreement regarding this relationship is an important factor in organizational outcomes such as improved productivity, job satisfaction and organizational commitment. This suggests that training can be of invaluable assistance in improving organizational performance. Skills training programs in oral communication and listening can be developed and implemented. The more precise and clear one's communications, the more likely there is to be mutual understanding and met expectations. The more developed one's listening skills, the more likely there is to be mutual understanding and met expectations. Perceptual agreement about the LMX relationship might indicate consistency in how the supervisor and subordinate approach their work relationship, and this consistency in approach might help facilitate the subordinate's performance by coordinated actions that facilitate performance. As our society and organizations become more and more diverse, it is crucial that we learn to build bridges between supervisory and non-supervisory employees. Communication and feedback are ways of building these bridges.

This dissertation provides support for the notion that there can be effective leader-member relationships when supervisors and subordinates are demographically dissimilar and hold dissimilar values. It highlights the positive aspects of communication and feedback as being a means to build group identity, even within supervisor-subordinate dyads. Training can be provided to all levels of employees on communication skills, active listening skills, and on the giving and asking for feedback. Supervisory training can also emphasize the importance of clear communication, including clarifying role expectations. Organizations can be encouraged to reward supervisors based on their communication and feedback endeavors.

In summary, the purpose of this dissertation was to identify antecedents to LMX perceptual agreement. The perceptual congruence and LMX literatures indicate that agreement is positively related to important performance outcomes, yet little research has been published regarding the antecedents of such agreement. It is hoped that this dissertation will encourage additional research to explore other aspects of the LMX perceptual agreement construct, additional antecedents to LMX perceptual agreement, and the continued development of appropriate techniques for measuring LMX.

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## Appendix A: Scale Items

### LMX-7

LMX-7 (as recommended by Graen & Uhl-Bien, 1995, p. 237, for both parties of the dyad, adapted) -- 7 items, 5-point continuum from *strongly agree* (1) to *strongly disagree* (5), summed. Possible scores range from 7 to 35.

1. I know where I stand...I usually know how satisfied my supervisor is with what I do. (This employee knows how he/she stands with me....he/she knows how satisfied I am with him/her.)
2. My supervisor understands my job problems and needs. (I understand this employee's job problems and needs.)
3. My supervisor recognizes my potential. (I recognize this employee's potential.)
4. My supervisor would use his/her power to help me solve problems at work. (I would use my power to help this employee solve problems in his/her work.)
5. My supervisor would "bail me out" at his/her expense. (I would bail this employee out at my expense.)
6. I would defend and justify my supervisor's decisions if he/she were not present to do so. (I have enough confidence in this employee that I would defend and justify his/her decision if he/she were not present to do so.)
7. I have an effective working relationship with my leader (This employee would describe your working relationship in very positive terms.)

### Perceived Similarity

2 measures

A. Member-perceived similarity with the leader/Leader perceived similarity with the member (Turban & Jones, 1988) -- 3 items, 5-point continuum from *strongly agree* (1) to *strongly disagree* (5), summed.

1. My supervisor and I are similar in terms of our outlook and perspective.
2. My supervisor and I see things in much the same way.
3. My supervisor and I are alike in a number of areas.

B. Perceived similarity: (Pulakos & Wexley, 1983) -- 1 item, 5-point scale from *strongly agree* (1) to *strongly disagree* (5), summed.

1. My supervisor and I are similar kinds of people

### Work Values

Protestant Work Ethic: PWE (Heaven, 1989) -- 9 items, 5-point continuum from *strongly agree* (1) to *strongly disagree* (5), summed.

1. Our society would have fewer problems if people had less leisure time.
2. Most people spend too much time in unprofitable amusements.
3. Money acquired easily (e.g., through gambling) is usually spent unwisely.
4. There are few satisfactions equal to the realization that one has done his/her best at a job.
5. Most people who don't succeed in life are just plain lazy.
6. The self-made individual is likely to be more ethical than the individual born to wealth.
7. People who fail at a job have usually not tried hard enough.
8. I feel uneasy when there is little work for me to do.

9. A distaste for hard work usually reflects a weakness of character.

#### Role Clarity

Role ambiguity (Schuler, Aldag, & Brief, 1977) -- 6 items, 5-point continuum from *strongly agree* (1) to *strongly disagree* (5), summed.

1. I have clear, planned goals and objectives for my job.
2. I know that I have divided my time properly.
3. I know what my responsibilities are.
4. I know exactly what is expected of me.
5. I feel certain about how much authority I have on the job.
6. Explanation is clear of what has to be done.

#### Role Conflict

Role conflict (Schuler, Aldag, & Brief, 1977) -- 8 items, 5-point continuum from *strongly agree* (1) to *strongly disagree* (5), summed.

1. I have to do things that should be done differently under different conditions.
2. I receive an assignment without the manpower to complete it.
3. I have to ignore a rule or policy in order to carry out an assignment.
4. I work with two or more groups who operate quite differently.
5. I receive incompatible requests from two or more people.
6. I do things that are apt to be accepted by one person and not accepted by others.
7. I receive an assignment without adequate resources and materials to execute it.
8. I work on unnecessary things.

### Cooperative Communication

(adapted from Lee, 1997, from Pinto & Pinto 1990) -- 5 items, 5-point continuum from *strongly agree* (1) to *strongly disagree* (5), summed.

1. Relevant information is exchanged openly with my supervisor
2. In general, it is difficult to approach my supervisor (reverse scored)
3. My supervisor often criticizes other employees (reverse scored)
4. My supervisor often fails to communicate information to me (reverse scored)
5. At times, my supervisor intentionally provides misleading information to me (reverse scored)

### Supervisor Feedback to Subordinate

(Kramer, 1995) -- 10 items, 5-point continuum, from *strongly agree* (1) to *strongly disagree* (5), summed.

1. Without my asking, my supervisor tells me how well I am performing my job.
2. From watching my supervisor's reactions to what I do, I can tell how well my supervisor thinks I am doing.
3. My supervisor lets me know if I am working up to his or her expectations.
4. My supervisor gives me feedback on how well we are working together without me having to ask.
5. From watching my supervisor, I can tell how well we get along with each other.
6. My supervisor provides helpful advice for improving my performance.
7. My supervisor provides information useful in completing my job.
8. My supervisor shares feelings and reactions to work events with me.
9. My supervisor indicates the quality of my performance.

10. My supervisor gives my praise and recognition for my efforts.

Subordinate Feedback Seeking

(Kramer, 1995) -- 5 items, 5-point continuum from *strongly agree* (1) to *strongly disagree* (5), summed.

1. I ask my supervisor for feedback on how I am doing.
2. I ask my supervisor if I am meeting all my job requirements.
3. I ask my supervisor if I am working up to his or her expectations.
4. I ask my supervisor for advice to improve my performance.
5. I ask my supervisor about the quality of my performance

Subordinate Feedback to Supervisor

(Kramer, 1995) -- 4 items, 5-point continuum from *strongly agree* (1) to *strongly disagree* (5), summed.

1. I tell my supervisor how well I think he/she is doing his/her job.
2. I share my feelings and reactions to workplace events with my supervisor.
3. I give my supervisor feedback on how well we are working together.
4. I give my supervisor praise and recognition for his/her efforts.

Supervisor Feedback Seeking

(Kramer, 1995) -- 4 items, 5-point continuum from *strongly agree* (1) to *strongly disagree* (5), summed.

1. I ask this employee for feedback on how I am doing.
2. I ask this employee if I am working up to his or her expectations.
3. I ask this employee for feedback on how well we are working together.
4. I ask this employee about their feelings and reactions to workplace events.

## Appendix B: Employee Survey

Your Name: _____	Supervisor's Name: _____				
	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. I do work for my supervisor that goes beyond what is specified in my job description.	1	2	3	4	5
2. I am willing to apply extra efforts, beyond those normally required, to meet my supervisor's work goals.	1	2	3	4	5
3. I do not mind working my hardest for my supervisor.	1	2	3	4	5
4. I do all the work that is required of me to do a good job, but I do not go beyond the job requirements.	1	2	3	4	5
5. I know where I stand; I usually know how satisfied my supervisor is with what I do.	1	2	3	4	5
6. My supervisor understands my job problems and needs.	1	2	3	4	5
7. My supervisor recognizes my potential.	1	2	3	4	5



- |     |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|
| 8.  | My supervisor would use his/her<br>power to help me solve problems at<br>work.                  | 1 | 2 | 3 | 4 | 5 |
| 9.  | My supervisor would “bail me out”<br>(help me out) at his/her expense.                          | 1 | 2 | 3 | 4 | 5 |
| 10. | I have an effective working<br>relationship with my supervisor.                                 | 1 | 2 | 3 | 4 | 5 |
| 11. | I would defend and justify my<br>supervisor’s decisions if he/she<br>were not present to do so. | 1 | 2 | 3 | 4 | 5 |
| 12. | I have clear, planned goals and<br>objectives for my job.                                       | 1 | 2 | 3 | 4 | 5 |
| 13. | I know that I have divided my time<br>properly.   | 1 | 2 | 3 | 4 | 5 |
| 14. | I know what my responsibilities<br>are.   | 1 | 2 | 3 | 4 | 5 |
| 15. | I know exactly what is expected of<br>me.   | 1 | 2 | 3 | 4 | 5 |
| 16. | I feel certain about how much<br>authority I have on the job.                                   | 1 | 2 | 3 | 4 | 5 |
| 17. | Explanation is clear of what has to<br>be done.   | 1 | 2 | 3 | 4 | 5 |
|     | I have to do things that should be  |   |   |   |   |   |

18.	done differently under different conditions.	1	2	3	4	5
19.	I receive an assignment without the manpower to complete it.	1	2	3	4	5
20.	I have to ignore a rule or policy in order to carry out an assignment.	1	2	3	4	5
21.	I work with one or more groups who operate quite differently.	1	2	3	4	5
22.	I receive incompatible requests from two or more people.	1	2	3	4	5
23.	I do things that are apt to be accepted by one person, but not by others.	1	2	3	4	5
24.	I receive an assignment without adequate resources and materials to execute it.	1	2	3	4	5
25.	I work on unnecessary things.	1	2	3	4	5
26.	My supervisor and I are similar in terms of our outlook and perspective.	1	2	3	4	5
27.	My supervisor and I see things in much the same way.	1	2	3	4	5

- |     |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|
| 28. | My supervisor and I are alike in a number of areas.   | 1 | 2 | 3 | 4 | 5 |
| 29. | My supervisor and I are similar kinds of people.  | 1 | 2 | 3 | 4 | 5 |
| 30. | Our society would have fewer problems if people had less leisure time.                            | 1 | 2 | 3 | 4 | 5 |
| 31. | Most people spend too much time in unprofitable amusements.                                       | 1 | 2 | 3 | 4 | 5 |
| 32. | Money acquired easily (e.g., through gambling) is usually spent unwisely.                         | 1 | 2 | 3 | 4 | 5 |
| 33. | There are few satisfactions equal to the realization that one has done his/her best at their job. | 1 | 2 | 3 | 4 | 5 |
| 34. | Most people who don't succeed in life are just plain lazy.  | 1 | 2 | 3 | 4 | 5 |
| 35. | The self-made person is likely to be more ethical or honest than the individual born to wealth.   | 1 | 2 | 3 | 4 | 5 |
| 36. | People who fail at a job have usually not tried hard enough.                                      | 1 | 2 | 3 | 4 | 5 |

37.	I feel uneasy when there is little work for me to do.	1	2	3	4	5
38.	A distaste for hard work usually reflects a weakness of character.	1	2	3	4	5
39.	Relevant information is exchanged openly with my supervisor.	1	2	3	4	5
40.	In general, it is difficult to approach my supervisor.	1	2	3	4	5
41.	My supervisor often criticizes me.	1	2	3	4	5
42.	My supervisor often fails to communicate information to me.	1	2	3	4	5
43.	At times, my supervisor intentionally provides misleading information to me.	1	2	3	4	5
44.	I ask my supervisor for feedback on how I am doing.	1	2	3	4	5
45.	I ask my supervisor if I am meeting all my job requirements.	1	2	3	4	5
46.	I ask my supervisor if I am working up to his/her expectations.	1	2	3	4	5
47.	I ask my supervisor for advice to improve my performance.	1	2	3	4	5

48. I ask my supervisor about the quality of my performance. 1 2 3 4 5
49. Without my asking, my supervisor tells me how well I am performing my job. 1 2 3 4 5
50. From watching my supervisor's reactions to what I do, I can tell how well my supervisor thinks I am doing. 1 2 3 4 5
51. My supervisor lets me know if I am working up to his/her expectations. 1 2 3 4 5
52. My supervisor gives me feedback on how well we are working together without me having to ask. 1 2 3 4 5
53. From watching my supervisor, I can tell how well we are getting along with each other. 1 2 3 4 5
54. My supervisor provides helpful advice for improving my performance. 1 2 3 4 5
55. My supervisor provides information useful in completing my job. 1 2 3 4 5

56.	My supervisor shares feelings and reactions to work events with me.	1	2	3	4	5
57.	My supervisor indicates the quality of my performance.	1	2	3	4	5
58.	My supervisor gives me praise and recognition for my efforts.	1	2	3	4	5
59.	I tell my supervisor how well I think he/she is doing his/her job.	1	2	3	4	5
60.	I share my feelings and reactions to workplace events with my supervisor.	1	2	3	4	5
61.	I give my supervisor feedback on how well we are working together.	1	2	3	4	5
62.	I give my supervisor praise and recognition for his/her efforts.	1	2	3	4	5
63.	In this organization, consistent rules and procedures are used to make decisions about things that affect me.	1	2	3	4	5
64.	In this organization, personal motives or biases influence decisions that affect me.	1	2	3	4	5

65.	In this organization, decisions that affect me are made ethically.	1	2	3	4	5
66.	In this organization, accurate information is used to make decisions that affect me.	1	2	3	4	5
67.	In this organization, my input is obtained prior to making decisions.	1	2	3	4	5
68.	In this organization, I am given the opportunity to modify decisions that have been already made.	1	2	3	4	5
69.	In this organization, the reasons behind decisions that affect me are explained.	1	2	3	4	5
70.	In this organization, concern is shown for my rights.	1	2	3	4	5
71.	In this organization, there is real interest in trying to be fair to me.	1	2	3	4	5
72.	I feel very loyal to this organization.	1	2	3	4	5
73.	I could just as well be working for a different organization.	1	2	3	4	5

74. It would take very little to change my present circumstances to leave this organization. 1 2 3 4 5
75. There's not too much to be gained by sticking with this organization indefinitely. 1 2 3 4 5
76. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees. 1 2 3 4 5
77. Deciding to work for this organization was a definite mistake on my part. 1 2 3 4 5
78. I am fairly rewarded, considering the responsibilities I have. 1 2 3 4 5
79. I am fairly rewarded, taking into account the amount of education and training I have. 1 2 3 4 5
80. I am fairly rewarded, in view of the amount of experience I have. 1 2 3 4 5
81. I am fairly rewarded for the amount of effort I put forth. 1 2 3 4 5



82. I am fairly rewarded for work I  
have done well. 1 2 3 4 5
83. I am fairly rewarded for the stress  
and strains of my job. 1 2 3 4 5

*Please Circle The Appropriate Response:*

GENDER: Male Female

RACE/  
ETHNICITY: Caucasian African/  
American Hispanic Asian/Pacific  
Islander Native American/  
Alaskan Native

AGE: Under 21 21-35 36-50 Over 50

CHILDREN: None At Home Grown

EDUCATION: Grade School High School  
or G.E.D. 2 yrs.  
College Graduated 4  
yr. College Graduate School

TENURE WITH  
COMPANY: Less than 1-2 years 3-5 years 6-10 years Over 10 years  
1 year

TENURE WITH  
CURRENT SUPERVISOR: Less than 1-2 years 3-5 years 6-10 years Over 10 years  
1 year

COMMENTS:

### Appendix C: Supervisor Survey

Your Name: _____	Employee's Name: _____				
	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. This employee does work for me that goes beyond what is specified in his/her job description.	1	2	3	4	5
2. This employee is willing to apply extra efforts, beyond those normally required, to meet my work goals.	1	2	3	4	5
3. This employee does not mind working his/her hardest for me.	1	2	3	4	5
4. This employee does all that is required in order to do a good job, but does not go beyond job requirements.	1	2	3	4	5
5. This employee knows how he/she stands with me; he/she knows how satisfied I am with him/her.	1	2	3	4	5
6. I understand this employee's job problems and needs.	1	2	3	4	5

- |     |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|
| 7.  | I recognize this employee's potential.  | 1 | 2 | 3 | 4 | 5 |
| 8.  | I would use my power to help this employee solve problems in his/her work.  | 1 | 2 | 3 | 4 | 5 |
| 9.  | I would "bail" this employee out at my expense.   | 1 | 2 | 3 | 4 | 5 |
| 10. | I have enough confidence in this employee that I would defend and justify his/her decision if he/she were not present to do so. | 1 | 2 | 3 | 4 | 5 |
| 11. | This employee would describe your working relationship in very positive terms.  | 1 | 2 | 3 | 4 | 5 |
| 12. | This employee and I are similar in terms of our outlook and perspective.  | 1 | 2 | 3 | 4 | 5 |
| 13. | This employee and I see things in much the same way.  | 1 | 2 | 3 | 4 | 5 |
| 14. | This employee and I are alike in a number of areas.   | 1 | 2 | 3 | 4 | 5 |
| 15. | This employee and I are similar kinds of people.  | 1 | 2 | 3 | 4 | 5 |

- |     |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|
| 16. | I ask this employee for feedback on<br>how I am doing.                            | 1 | 2 | 3 | 4 | 5 |
| 17. | I ask this employee if I am working<br>up to his/her expectations.                | 1 | 2 | 3 | 4 | 5 |
| 18. | I ask this employee for feedback on<br>how well we are working together.          | 1 | 2 | 3 | 4 | 5 |
| 19. | I ask this employee about their<br>feelings and reactions to workplace<br>events. | 1 | 2 | 3 | 4 | 5 |

## Vita

Barbara Dale Minsky received her Bachelor of Arts degree in psychology from Brooklyn College, City University of New York. She also earned a Master of Education degree in counseling from Brooklyn College. Barbara worked for over 20 years in the corporate environment, primarily in the insurance industry, before returning to school earning a Master of Business Administration degree from the University of Tennessee at Chattanooga. She then entered Louisiana State University for her Doctor of Philosophy degree in business administration (management). Barbara has authored and co-authored several published articles and has presented papers at the annual meetings of the Southern Management Association and the Academy of Management. Her research interests revolve about perceptual issues and include leadership, group dynamics, performance management, values, and the change process.