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Clarifying leader-member exchange theory: Examining the role of leader active listening and justice perceptions

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CLARIFYING LEADER-MEMBER EXCHANGE THEORY:
EXAMINING THE ROLE OF LEADER ACTIVE LISTENING
AND JUSTICE PERCEPTIONS

A Thesis
Presented to the
Faculty of
California State University,
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Master of Science
in
Psychology:
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Erik Samuel Collier
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ABSTRACT

This study examines leader-member exchange (LMX) theory and presents a framework to better predict work outcomes of job satisfaction and organizational commitment by introducing organizational justice perceptions as a mediating construct and leader active listening as a moderating construct. To test the hypotheses, data was collected via online survey from 241 adults working in public and private organizations. Partial support was found for the mediation and moderation hypotheses. Distributive justice perceptions partially mediated the relationship between LMX quality and job satisfaction and procedural justice perceptions fully mediated the relationship between LMX quality and organizational commitment. Leader active listening moderated the relationship between LMX quality and interactional justice perceptions. Findings, study limitations, and theoretical and practical implications are discussed.
DEDICATION

To my loving wife, Julieann, my incredible parents, Samuel and Michelle, and my inspiring brother, Daniel. Thank you for your love and support.
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CHAPTER ONE
INTRODUCTION

Literature Review

Effective leadership is a crucial element in any successful organization. Organizational research has explored the leader-member relationship from a variety of perspectives. A contemporary theory on the nature of leader and subordinate relationships is Leader-Member Exchange (LMX) theory. LMX theory asserts that a leader develops unique exchange relationships with each of their subordinates and that these relationships vary in quality of exchange. Studies regarding the explanatory power of LMX theory have been inconsistent at best (Gerstner & Day 1997; Schriesheim, Castro & Cogliser, 1999). Poor and varied operationalization of the leader-member exchange is a contributing factor to this ambiguity (Dienesch & Liden, 1986; Schriesheim, Castro & Cogliser, 1999). The purpose of this study was to elucidate current LMX theory and enhance the reliability in predicting organizational outcomes of employee commitment and satisfaction. This was accomplished through the introduction of a mediating construct (organizational justice perceptions) and a moderating construct (leader active listening aptitude). Moderators such as organizational context and leader traits and behaviors have been proposed in past research to better explain LMX theory (Gerstner & Day, 1997; Liden, Sparrowe & Wayne, 1997; Erdogan & Bauer, 2010).
Leader-Member Exchange Theory

Leader-member exchange theory was first proposed by Dansereau, Graen, & Haga (1975) to explain the role-making processes between a leader and his or her individual subordinates. LMX theory proposes that a leader treats each individual subordinate differently according to the developed quality of their dyadic linkage, or exchange. Overall, subordinates will generally fall into either a high quality exchange group—an “in-group” or into a low quality exchange group—an “out-group”. The in-group is usually relatively small and manifests as the leader’s trusted assistants, lieutenants, or advisors. In-group members tend to garner more challenging tasks, social support, and organizational resources from the leader because of the high level of mutual respect and trust present in the relationship. Due to the limited personal and organizational resources afforded to the leader, he/she may feel constrained to select a limited number of subordinates to take in as trusted members of the in-group. The exchange relationship between the leader and the out-group members is substantively different. These out-group subordinates experience a much lower level of mutual influence with the leader. The out-group relationship functions through compliance with the formal job-role requirements. Compliance is expected, and will garner the employee compensation and recognition as stated in the work contract. There is a misconception that the out-group members experience an aversive or poor relationship with their leader. While conflict and discord may form between a leader and an out-group member, the default out-group
exchange relationship should be defined as formal, and sufficiently matching the agreed upon work contract. The negative association is made only when the out-group member's compensation and treatment is compared to a member of the in-group as the in-group member's compensation and influence extends above and beyond the formal work contract. This social comparison is a critical component to understanding the link between LMX group membership and organizational outcomes. When comparing their treatment and compensation to those of the in-group members, the out-group may develop negative fairness perceptions which then lead to the many organizational outcomes previously explored by researchers. The nature of these fairness perceptions as well as the various outcomes predicted by the LMX model will be reviewed later.

LMX is based on earlier vertical dyad linkage (VDL) research which was developed in opposition of average leadership style (ALS) theory (Dansereau, Graen & Haga, 1975). ALS theory proposes that leaders expose all subordinates to the same leadership style and that the critical components for researchers to study are leader traits and behaviors. The vertical dyad literature suggests leaders form unique dyad links to each individual subordinate and may treat some links differently than others. LMX theory describes the dyads falling into categories of in-group and out-group based on the quality of the leader-member exchange within the dyad (Dansereau, Cashman & Graen, 1973; Dansereau, Graen & Haga, 1975; Graen, 1976). In a more recent review of the LMX literature, Dienesch & Liden (1986) conclude that LMX and ALS may be
simultaneous, complimentary processes. So while leaders may differentiate between subordinates, they may possess some qualities that are exhibited across all subordinates.

Research has shown that LMX quality can be linked to important organizational outcomes such as job performance (Weitzel & Graen, 1989) organizational commitment (Nystrom, 1990; Major, Kozlowski, Chao, & Gardner, 1995), organizational citizenship behaviors (OCBs) (Yammarino & Dubinsky, 1992; Podsakoff, MacKenzie & Hui, 1993; Deluga, 1994), and job satisfaction (Graen, Novak & Sommerkamp, 1982; Major, Kozlowski, Chao, & Gardner, 1995). In their meta-analysis of LMX research, Gerstner and Day (1997) explain that LMX does not consistently correlate with these outcomes. They posit that moderator analysis was warranted in most of the studies they reviewed. They show that alpha levels of LMX measures significantly increase when a moderator is considered. Their recommendations for future research include looking at leader-member agreement and antecedents of LMX quality. They suggest relational demography, upward influence, leader-member similarity, and leader and member personality traits as antecedents that merit further study. Gerstner and Day (1997) also recommend studying which factors may drive the initial negotiation of the leader-member exchange.

This study introduced leader active listening as a hypothesized moderator to the existing model of LMX. Active listening skill may affect leader-member negotiations and attributions of work outcomes by both parties, but may not
guarantee the development of an in-group dyadic relationship. This important distinction allows for effective leaders to positively influence work outcomes in both the in-group and out-group.

Graen and Uhl-Bien's overview of the past 25 years of LMX research (1995) describes the evolution in understanding and studying LMX theory. They break LMX research into four evolutionary stages: 1) Vertical Dyad Linkage (VDL), validation of differentiation within work units. 2) LMX, validation of differentiation for organizational outcomes. 3) Leadership-Making, theory and explanation of dyadic relationship development. 4) Team-Making Competence Network, investigation of assembling dyads into larger collectives. Once organizational outcomes had successfully been linked to LMX quality, research evolved to examine the leadership making process and how leaders may foster multiple mature exchanges. Graen and Uhl-Bien's (1995) third stage of LMX research, leadership-making, emphasizes how leaders may work with each subordinate to develop more high quality exchanges rather than discriminate between subordinates. Producing leaders that proactively develop high quality exchanges has two benefits: 1) The LMX process will be seen as more equal and fair by subordinates. 2) The potential for more high quality leader-member exchanges would, in turn, increase leader and organizational effectiveness (Graen & Uhl-Bien, 1995). This prescriptive approach creates the need to understand the most effective leader traits and behaviors in offering and
developing multiple high quality leader-member exchanges. So how does a high quality leader-member exchange develop?

Graen and Scandura (1987) present LMX development in three stages: *role-taking, role-making, and role-routinization*. In the *role-taking* stage the supervisor and subordinate start as strangers. The dyad mutually samples the behaviors of one another and decides upon whether the relationship will remain at this stage or progress. The critical quality that facilitates progress through the *role-taking* stage is mutual respect. From this foundation of mutual respect, the supervisor and subordinate begin to influence one another's attitudes and behaviors in the *role-making* stage. The leader will show trust in the subordinate by offering him/her opportunities and/or special assignments. The subordinate's response to the offered assignments will establish his/her role to the leader. Accepting responsibilities and creating benefits for the leader will define the subordinate as a trusted assistant (in-group). As the subordinate fulfills the supervisor's needs and is rewarded, a mutually beneficial relationship is established. The critical quality that must develop to facilitate progress through the *role-making* stage is mutual trust. When roles have been solidified and mutual respect and trust have been firmly and repeatedly established, the dyad enters the “mature” stage of *role-routinization*. This stage is marked by a sense of mutual obligation between the parties. The established history of performance and support between leader and subordinate creates a sense of future career interdependence. A dyad in the *role-routinization* stage is also more cohesive.
Attributions of performance are generally made in the favor of the other member because they "know where the other is coming from". The close bond formed in the final stage of LMX development is yet another point of reference for social comparison by the out-group members. Dirks and Ferrin (2002) highlight the importance of interpersonal trust within the LMX model. Piccolo, Bardes, Mayer and Judge (2008) found that interpersonal-trust, as a function of LMX, moderated the relationship between interactional and procedural justice perceptions and an employee’s feelings of obligation to an organization.

In their study of diverse leader-member dyads, Scandura and Lankau (1996) propose interpersonal skills and communication competence, among other factors, as potential moderators to the relationship between diverse leader-member dyads and progression through Graen and Scandura’s (1987) 3-stage process of LMX development. They suggest that leaders that possess these skills will be better able to foster mutual respect and trust in the exchange relationship by overcoming initial differences in the role-taking stage and reducing performance attribution error in the role-making stage. The communication competency of active listening addresses issues of mutual respect and trust as well as performance attribution error. A leader that avoids attribution error during the development of a leader-member exchange will be seen as more procedurally fair. If a subordinate identifies his/herself in the out-group they may be more accepting of their status because they don’t feel that the leader misinterpreted their successes or failures during role-making. The
dynamic of mutual influence is paramount to gaining a balanced perspective on out-group selection. Half of the role formation process is influenced and controlled by the subordinate. From this understanding, one may assert that out-group membership is at least partially self-selected. This allows for the possibility of out-group members to feel accepting or even content with their out-group status. This is especially true if they have no desire to take on the additional work and responsibility required for strong in-group role formation and maintenance. Acceptance and even selection into the out-group allows for a situation where out-group members may not exhibit negative organizational outcomes such as commitment, organizational citizenship behaviors, satisfaction, and leader trust. This may account for the numerous inconsistencies in the literature. There are many aspects of current LMX theory and measurement that must be examined before moving forward in developing a reliable and valid model.

**Weaknesses of Leader-Member Exchange Theory**

Leader-Member Exchange theory has evolved over the years. Refinement of theory can be advantageous to researchers if the theory is made more precise, parsimonious, and comprehensive. Yukl (2002) believes that the revisions of LMX theory have not consistently produced these benefits. Yukl points out that the nature of the exchange relationship is ambiguous, and that the proliferation of LMX definitions and scales has done little to reduce this ambiguity. He cites the observed low agreement between leader and member
ratings of LMX as proof that the LMX relationship may be highly confounded with other variables. Yukl calls for a clear description of the way a leader’s different dyadic relationships affect each other (i.e. social comparison and fairness perceptions) and overall group performance (i.e. organizational outcomes).

Schriesheim, Castro & Cogliser (1999) came to the same conclusion as Yukl in their comprehensive review of LMX theory and measurement. They critique the array of older, popular LMX scales. They describe that, “LMX scales seem to have been developed on an ad-hoc, evolutionary basis, without the presentation of any clear logic or theory justifying the changes which were made” (Schriesheim, Castro & Cogliser, 1999). This includes the most popular LMX scale, the LMX-7. Although the most popular scale, the LMX-7 is criticized for being too broad in scope, and representative of a poorly operationalized construct. This can be seen in the scale’s high correlation with positive leader attributes. This is a critical issue because a relationship such as this does not permit a situation for a highly effective leader to have out-group dyadic relationships. According to LMX theory, the formation of an out-group is inevitable due to limited resources allotted to the leader as well as subordinates self-selecting into the out-group. This is not to say that the leader cannot be an effective leader; rather, that even effective leaders have some form of an out-group. Developing this distinction into the operationalization of the LMX construct is necessary to explain past inconsistencies of LMX research and provide new direction for future research.
Drawing from Dienesch and Liden's (1986) earlier critique of LMX theory and measurement, Liden and Maslyn (1998) followed up on their conclusions regarding weak LMX measures by developing and validating a multidimensional leader-member exchange scale (LMX-MDM). Their scale contained factors of affect, loyalty, contribution, and professional respect. Their four-factor scale significantly accounted for additional variance over the LMX-7 in common organizational outcomes. Although constructed through a more regimented process, this measure incorporates constructs (i.e. affect and professional respect) that could overlap with many other stable leader traits or behavior constructs which may confound the relationship to organizational outcomes. It is reasonable to assume that these constructs do affect the role-making process, but this speaks more towards the potential for high LMX exchange quality, not the current state of the exchange. What ought to be captured by a LMX scale is the outcomes that both groups cannot experience simultaneously, such as additional responsibility, additional authority, extra rewards, and boundary-spanning tasks. Capturing these group specific constructs will provide a clearer differentiation between in-group and out-group members and allow for highly effective leaders to have out-group members as well as stable traits and behaviors. So how do these stable leader traits and behaviors clarify the LMX model? Could a leader trait or behavior influence the justice perceptions generated by exchange quality? This study investigated leader active listening.
aptitude as a stable leader behavior and moderator of the LMX-outcome relationship.

**Leader Active Listening**

Supervisor-subordinate communication is a necessary function of LMX (Fairhurst & Chandler, 1989). Bakar, Dilbeck & McCroskey (2010) have demonstrated that positive relationships communication, upward openness communication, and job relevant communication partially mediates the relationship between LMX and the work outcome of group commitment. They suggest that these communication activities vary as a function of LMX quality. That is, supervisors will exhibit more positive relationships communication, upward openness communication, and job relevant communication with in-group member than with out-group members.

In this study, it is suggested leader communication style, in the form of active listening, is stable across all levels of LMX and acts as a moderator. Active listening is a popular concept in the sales and management literature (Castleberry, Shepherd & Ridnour, 1999; Comer & Drollinger, 1999; Cousins, 1996; Helms & Haynes, 1992; Morran, Stockton & Whittingham, 2004; Rutter, 2003). The goal of active listening is to make the speaker feel comfortable and to draw out additional information to increase understanding. Based on Cousins' (1996) article on effective active listening there are five behavioral domains of active listening:
1) Listen without making judgments. This first step requires listening without letting your own perceptions serve as a barrier to open communication. You need to be conscious of your own judgments and perceptions and also be able to effectively put them aside.

2) Identify feelings. This next step requires you to determine what the speaker is feeling. You should be aware of their body language and tone of voice, analyze the content of their message, and use empathy to gain a greater understanding of how they're actually feeling.

3) Acknowledge feelings. Once you have identified the speaker's feelings, tell them that you sense how they are feeling, and describe those perceived feelings. By checking out and verifying how the person is really feeling, you can let them know that they've been heard. Their knowledge that you understand and recognize their feelings makes them easier to work with.

4) Paraphrase. When you paraphrase, you repeat in your own words what the speaker has just said in order to make sure you understand it. This also gives the speaker the opportunity to make themselves clear.

5) Ask open-ended questions. Closed-ended questions will give you only "yes" or "no" answers or specific answers of only a few words. Open-ended questions or requests for information (e.g., how, why, explain, describe) will provide the most feedback. (Cousins, 1996)
These five domains represent the behavioral manifestations of the three underlying constructs of active listening as proposed by Comer and Drollinger (1999): sensing, processing, and responding. Comer and Drollinger (1999) illustrate the importance of active listening by exploring the interaction of sales associates and customers. They proposed that effective listening combines active and empathetic listening skills, which involves the three afore mentioned constructs. Sensing refers to the physical receipt of both verbal and non-verbal information from the speaker. Processing refers to the listener's ability to understand, interpret, evaluate, and remember information. Responding refers to information that the listener sends back to the speaker indicating that the information, both verbal and non-verbal, was received correctly. At this stage, questions can be used to probe for more detail or to clarify the speaker's message.

Castleberry, Shepherd and Ridnour (1993) developed a self-assessment for salespeople on effective listening skills. They believed that effective listening can be enhanced when the listener is highly motivated to listen, possesses adequate knowledge in the subject matter of discussion and has behavioral and cognitive listening skills. The Interpersonal Listening in Personal Selling (ILPS) scale incorporates the three aspects of listening (sensing, processing, and responding) as posited by Comer and Drollinger (1999) and uses the cognitive process of actively sensing, interpreting, evaluating, and responding to the verbal and nonverbal messages of present or potential customers (Castleberry,
Shepherd & Ridnour, 1993). They surveyed 604 salespeople from a variety of industries and found that both performance and sales experience were significantly correlated with the ILPS. In the present study, a modified version of this scale was used to evaluate leader active listening from the perspective of the member. An exploratory factor analysis verified that Comer and Drollinger’s (1999) three aspects of active listening (sensing, processing, and responding) were retained in the modified scale (Collier et al., 2006).

Within the leader-member relationship, the attentiveness produced by active listening accomplishes three things: it helps the leader concentrate more fully on what the subordinate is saying, it sends a verbal and nonverbal message to the subordinate that he or she is valued, and it creates a probing dialogue that garners maximum information from the subordinate. Gathering valuable information from the subordinate helps prevent attribution of performance errors or the reliance on possible stereotypes. Active listening may also influence fairness perceptions of out-group members. Organizational justice literature was reviewed to examine how active listening interacts with subordinate perceptions of fairness within and between leader-member dyads.

**Organizational Justice Perceptions**

Scandura (1999) believes that the nature of LMX development and evaluation can be more fully understood in the context of organizational justice theory. She introduces justice theory as a mediating variable between LMX and organizational outcomes. She posits that subordinates evaluate their exchange
relationship against others and that their perception of the fairness of the exchange, in turn, correlates with organizational outcomes observed in previous research.

There are two dominant, longstanding justice constructs: distributive justice (Adams, 1965)—fair and equal outcome distributions, and procedural justice (Thibaut and Walker, 1975)—the fairness of the process utilized to determine those outcome distributions. There is also a third, more recent, construct of justice proposed in the literature—interactional justice (Bies & Moag, 1986). Interactional justice is the idea of basing judgments of fairness on the quality of interpersonal treatment, honesty, and availability of information during the process of deciding outcome distribution.

Researchers have debated whether interactional justice is simply part of the procedural justice construct, or whether it accounts for enough unique variance to merit a distinction from procedural justice. Colquitt addresses the issue of construct distinction in a field study (Colquitt, 2001) and meta-analysis of the past 25 years of organizational justice research (Collquitt et al., 2001). He found support for construct distinction in both studies. Distributive, procedural, and interactional justice constructs each accounted for significant unique variance.

Distributive Justice was the earliest justice construct to be defined by researchers. Early distributive justice research was base on social exchange theory, specifically the work of Adams (1965). Adams used social exchange
theory to evaluate fairness perceptions. Adams suggested that people
determined the fairness of an outcome by calculating the ratio of their inputs
(effort, skill, intelligence, etc.) to their outcomes, or outputs, and then using that
ratio to compare to other people’s input/output ratio (1965). Shortly after Adams’
equity-based, distributive justice theory, Deutsch (1975) explained that equality
and need theory could also be used to evaluate the fairness of outcome
distributions. The equality rule asserted that every party should receive the same
outcome. Distributive justice under the equality rule was evaluated by examining
the consistency of the outcome distribution. Need theory asserted that the
outcome distribution should be based on levels of need for the outcome.
Distributive justice under the need rule was evaluated by examining whether
those in the most need received a higher allocation of the outcome. All three
models have been examined, but in a review of research on distributive justice,
Greenberg (1982) concluded that the equity norm (Adams, 1965) tended to be
the more predominant distributive justice rule. Although Greenberg’s review
(1982) has become dated, further review of the literature shows that the equity
norm is still the most widely accepted rule in studying distributive justice. Equity-
based distributive justice has been shown to mediate the relationship between
LMX quality and organizational outcomes (Vecchio, Griffeth & Horn, 1986). They
showed that those subordinates who had high quality exchanges with their
immediate supervisor had a higher sense of equity (distributive justice) than
those with low quality exchanges.
Thibaut and Walker (1975) are credited with introducing the study of process into the justice literature. Thibaut and Walker viewed legal processes of mediation and arbitration as containing a process stage and outcome stage. In their study, disputants evaluated fairness on the control they had over the process of reaching the outcome, rather than the outcome itself. This notion of process control was later labeled as participant “voice” by Lind & Tyler (1988). Leventhal (1980) broadened the notion of procedural justice to non-legal literature. Leventhal suggested that fair procedures should be applied consistently, be free from bias, be based on accurate information, be correctable, be ethical, and ensure that affected groups are considered (1980). Scandura (1999) tied the procedural justice construct into LMX theory. She stated, “Procedural justice suggests that as long as a leader is perceived as fair by all work unit members (fair procedures for allocating rewards are followed), then a fair exchange of inputs to rewards might be maintained for all members” (p. 30).

LMX, through a distributive justice perspective, is equity-based. But with the inclusion procedural and interactional justice perspectives, in-groups and out-groups may accept inequities in resource allocation (Tyler, 1986). Tyler and Caine (1981) found, “that if a leader is procedurally fair, his/her resource allocation decisions will be accepted by both the in-group and the out-group”. Leaders must try to achieve perceptions of procedural justice through effective communication (interactional justice) with all unit members to accept distributive outcomes.
The construct of Interactional justice was introduced by Bies and Moag in 1986. They demonstrated that the interpersonal treatment people receive when a procedure is implemented could influence judgments of fairness. Later, in Greenberg's (1990, 1993) studies of justice perceptions and theft behaviors, interactional justice was further operationalized into two subgroups: Interpersonal and informational justice. Interpersonal justice is the degree to which people are treated with politeness, dignity, and respect by those involved in executing the procedures and deciding the outcomes. Informational justice reflects the quality of the explanations provided to inform the employee about why a certain procedure was chosen and/or why the outcomes were distributed in a particular way.

Organizational justice predicts many organizational outcomes in common with LMX quality. Predictive reliability was established by Colquitt, Conlon, Wesson, Porter & NG (2001) in their meta-analysis of the justice literature. Outcomes included in their meta-analysis included organizational commitment, organizational citizenship behaviors, job satisfaction, and performance. More current, multi-level research by Liao and Rupp (2005) looked at justice climate, justice attributions to the organization or supervisor, and individual justice perspectives. Support for organizational outcome prediction with multiple combinations of multi-foci and cross-level comparisons of justice, provide new direction for justice research. Both studies posited that organizational justice
works well as a mediator between predictors and important organizational outcomes.

Leader-member exchange is a process of role development which concludes in an outcome of exchange quality. The LMX outcome distributions (i.e. in-group vs. out-group) present a source of social comparison (distributive justice) and subsequent fairness evaluation. LMX theory viewed in the context of justice theory may provide insight to the nature of LMX and the outcomes associated with it. Scandura (1999) explained how various levels of the LMX process may be related to organizational justice constructs. She concluded that it was unclear whether the correlations reported between LMX and organizational justice variables were an outcome to the LMX process or a more central element in the development of LMX relationships. She states that a theoretical framework is needed to further elucidate the role of organizational justice in the LMX development process. She believes that organizational justice is central to the theoretical development of the LMX model (Scandura, 1999).

Interactional justice is established through communication. Research has examined communication as a component of the LMX-organizational justice relationship (Fairhurst & Chandler, 1989; Schiemann, 1977). In her proposed LMX-organizational justice model, Scandura (1999) integrates distributive, procedural, and interactional justice constructs with LMX. From her model she makes several propositions for future research. She proposes that both procedural and distributive justice mediate the relationship between in-group/out-
group membership and work outcomes. Researchers have found preliminary support for this mediated model (Bhal, 2005; Ansari, Kee & Aafaqi, 2007).

Scandura (1999) also proposes that interactional justice augments the relationship of in-group/out-group membership and performance. In the present study, fairness perceptions involving the LMX development processes and comparisons to other LMX dyads are proposed to be moderated by the quality of leader active listening. Active listening provides the components of interpersonal fairness such as respect and trust, while the active responding and probing of additional information from the subordinate provides the components of informational fairness such as truthfulness and information adequacy.

To accurately assess LMX in the context or organizational justice, it was necessary to select organizational outcomes that have been predicted by both constructs with some success: Organizational commitment and job satisfaction. LMX has not been as consistent in predicting these outcomes (Gerstner & Day, 1997). This study deviated from the traditional, broad operationalization of LMX quality to a model that allows for the partitioning of LMX quality and stable leader attributes. The logic for such separation is that leaders with many stable positive traits or behaviors may still have an out-group due to limited resources and/or subordinate self-selection into the out-group. Many popular LMX scales capture additional constructs that can distort results.
Hypotheses

The relationships between LMX quality, distributive justice perceptions, procedural justice perceptions, interactional justice perceptions, organizational commitment, and job satisfaction were examined to test for mediation. Leader active listening and the interaction between leader active listening and LMX quality were included to test for moderation.

Hypothesis 1: The relationship between LMX quality and job satisfaction are (a) mediated by distributive justice perceptions, (b) mediated by procedural justice perceptions, and (c) mediated by interactional justice perceptions.

Hypothesis 2: The relationship between LMX quality and organizational commitment are (a) mediated by distributive justice perceptions, (b) mediated by procedural justice perceptions, and (c) mediated by interactional justice perceptions.

Hypothesis 3: Leader active listening (a) is positively related to job satisfaction, and (b) is positively related to organizational commitment.

Hypothesis 4: Leader active listening (a) moderates the relationship between LMX quality and distributive justice, (b) moderates the relationship between LMX quality and procedural justice, and (c) moderates the relationship between LMX quality and interactional justice.

The hypothesized models are presented in Figures 1 and 2 where rectangles represent measured variables. Solid, single-headed arrows indicate a
hypothesized direct relationship. Dashed, single-headed arrows indicate a hypothesized direct relationship prior to the introduction of mediating variables. Absence of a line connecting variables implies no hypothesized direct relationship.

Figure 1. Hypothesized Model: Mediation
CHAPTER TWO

METHODS

Sample

The sample size for this analysis is 249. Participants included adults who were employed and reported to a direct supervisor or manager. The sample was gathered from a large government organization and a local university. Participants were primarily Caucasian (57%) or Hispanic (24%) females (60%) under forty years old (76%). Most participants were educated, with 95% having completed some college units. The majority of participants worked for a public organization (63%), held full or part-time non-management positions (75%) and had a personal annual income of $60,000 or less (74%).

Measures

All participants were given a survey containing scales for each variable. Variables were calculated by averaging scale item responses. Scales that contained missing data were averaged if the majority (greater than 50%) of the scale was completed by the participant. Each scale was assessed for reliability and opportunities to increase reliability through item deletion.

Active Listening was measured using the 20-item leader active listening scale (LALS), with three subscales (sensing, processing, and responding) (Table A1)(Collier et al., 2006). Sample items include: My supervisor listens intently
when I speak; My supervisor asks questions when he/she does not understand the feelings behind my words; My supervisor allows me to express my feelings and thoughts openly without judgment. All item responses were scaled from Strongly Disagree = 1 to Strongly Agree = 5. Scale reliability was α=.97.

LMX Quality was measured using a modified version of Liden and Maslyn’s (1982) LMX-MDM scale (Table A2). For this study, the subscale for affect was administered, but removed from the analysis. The reason for the exclusion of affect was to operationalize LMX to allow for out-group members to have a leader that they like (an effective leader). Sample items from affect include: I like my supervisor very much as a person; My supervisor is the kind of person one would like to have as a friend. Sample items from the remaining constructs include: My supervisor would defend me to others in the organization if I made an honest mistake (loyalty); I do work for my supervisor that goes beyond what is specified in my job description (contribution); I admire my supervisor’s professional skills (professional respect). All item responses were scaled from Strongly Disagree = 1 to Strongly Agree = 7. Scale reliability was α=.93.

Organizational justice perceptions were measured using a 3-factor scale that is a composite of a procedural/interactional justice scale developed by Schappe (1998) and a distributive justice scale developed by Moorman (1991) (Table A3). Items from this scale include: The procedures used to make decisions in your organization are consistently applied from one time to the next
(procedural); My supervisor considers my viewpoint. (interactional); I am fairly rewarded for the amount of effort I put forth (distributive). All item responses were scaled from Strongly Disagree = 1 to Strongly Agree = 7. Overall scale reliability was $\alpha=.97$. Distributive justice subscale reliability was $\alpha=.97$. Procedural justice subscale reliability was $\alpha=.95$. Interactional justice subscale reliability was $\alpha=.96$.

Organizational commitment was measured using Allen & Meyer's (1990) affective, normative, and continuance commitment scale (Table A4). Sample items include: I would be very happy to spend the rest of my career with this organization (affective); I am not afraid of what might happen if I quit my job without having another one lined up (continuance); I think that people these days move from company to company too often (normative). All item responses were scaled from Strongly Disagree = 1 to Strongly Agree = 7. Scale reliability was $\alpha=.83$.

Job satisfaction was measured using the 25-item Abridged Job Descriptive Index (AJDI) developed by Stanton et al. (2001) (Table A5). The AJDI is an abridged version of the Job Descriptive Index (JDI) and consists of a list of 25 adjectives and descriptive phrases that are proposed to describe the employee's job. The participant was forced to choose "yes", "?", or "no" to whether or not the adjective described his/her position. Responses to this scale were coded as "yes"=3, "?"=2, and "no"=1. The 25 items represent 5 subscales.
(Work, Pay, Promotion, Supervision, & Coworkers) of five items each. Scale reliability was \( \alpha = .83 \).

Procedure

The scales were complied into an online survey at <http://www.surveymonkey.com> including a cover page detailing the nature of the study, confidentiality, and anonymity. Approval for survey distribution was gained from the appropriate, authorized parties at each organization. Participants were provided an informed consent form containing the IRB review stamp. At the conclusion of the survey, each participant was provided a debriefing statement. Collected data were downloaded and imported into Microsoft Excel and SPSS for screening and analysis.
CHAPTER THREE

RESULTS

Variable means, standard deviations, reliability estimates, and intercorrelations are summarized in Table 1. SPSS Missing Value Analysis (MVA) was conducted to assess the quantity and pattern of missing data. No variable was found to have greater than 5% missing data. Variables were calculated by averaging scale item responses. Scales that contained missing data were averaged if the majority of the scale was completed by the participant. Three cases were deleted due to insufficient scale data.

The assumptions of normality and linearity were evaluated through SPSS. Univariate outliers were scanned by saving standardized scores for the data and extremely low z scores (z < -3.3) and extremely high z scores (z > 3.3) were considered. No univariate outliers were identified.

With the use of a $\chi^2(6) = 22.458$, $p < .001$ criterion for Mahalanobis distance, two cases were identified as a multivariate outliers. These cases were recoded and a regression was used with the IVs predicting the recoded variable as the DV. LMX quality, leader active listening, and the Interaction of LMX quality and leader active listening were found to significantly predict the multivariate outlier with $p < .001$. The corresponding cases were identified and found to have an LMX quality score and leader active listening score less than 1.5. There were no other cases where both LMX quality and leader active
Table 1. Variable Means, Standard Deviations, Reliabilities and Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) LMX Quality</td>
<td>5.18</td>
<td>1.39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(93)</td>
</tr>
<tr>
<td>2) Leader Active Listening</td>
<td>3.55</td>
<td>.90</td>
<td>.82*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.97)</td>
</tr>
<tr>
<td>3) Distributive Justice</td>
<td>4.36</td>
<td>1.88</td>
<td>.50*</td>
<td>.56*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Procedural Justice</td>
<td>4.23</td>
<td>1.31</td>
<td>.55*</td>
<td>.60*</td>
<td>.47*</td>
<td></td>
<td></td>
<td></td>
<td>(.95)</td>
</tr>
<tr>
<td>5) Interactional Justice</td>
<td>5.17</td>
<td>1.61</td>
<td>.84*</td>
<td>.86*</td>
<td>.58*</td>
<td>.65*</td>
<td></td>
<td></td>
<td>(.96)</td>
</tr>
<tr>
<td>6) Organizational Commitment</td>
<td>4.11</td>
<td>.90</td>
<td>.17*</td>
<td>.16*</td>
<td>.17*</td>
<td>.23*</td>
<td>.13</td>
<td></td>
<td>(.83)</td>
</tr>
<tr>
<td>7) Job Satisfaction</td>
<td>2.36</td>
<td>.42</td>
<td>.57*</td>
<td>.61*</td>
<td>.58*</td>
<td>.48*</td>
<td>.60*</td>
<td>.22*</td>
<td>(.83)</td>
</tr>
</tbody>
</table>

*p < .05
listening scores were below 1.5. This may be the reason the cases were pushed away from the centroid. The multivariate outliers were selected out of the data.

Next, the data were assessed for normality. Descriptive statistics including skew and kurtosis were examined for extreme cases by calculating z scores skew and kurtosis noting those z scores outside the criteria of \( z = 3.3 \). A significant moderate negative skew was observed for LMX quality (\( z = -4.50, p < .001 \)), leader active listening (\( z = -3.72, p < .001 \)), interactional justice perceptions (\( z = -4.93, p < .001 \)) and job satisfaction (\( z = -3.34, p < .001 \)). A significant moderate negative kurtosis was observed for distributive justice perceptions (\( z = -3.61, p < .001 \)). However, due to the moderate nature of the observed skewness and kurtosis, no transformations were performed to normalize variables. Review of scatter plots and residual plots confirmed that the data were linear and homoscedastic. Multicollinearity was assessed by running bivariate correlations between all variables. No multicollinearity was found between variables.

Presentation of Findings

Mediation Hypotheses

Hypothesis 1 predicted that each of the justice variables would mediate the relationship between LMX quality and job satisfaction. Hypothesis 2 predicted that each of the justice variables would mediate the relationship between LMX quality and job organizational commitment. A regression analysis
and bootstrapping procedure (Hayes, Preacher & Myers, 2010) was used to test for the hypothesized mediation. Figure 3 summarizes the regression analysis findings by including the unstandardized regression coefficients ($B$) into the original models. The three justice constructs were highly correlated. In order to identify the unique contribution of each justice construct, the regression analysis controlled for the overlapping variance between distributive, procedural, and interactional justice.

**Hypothesis 1.** Support was found for hypothesis 1(a). Distributive justice perceptions partially mediated the relationship between LMX quality and job satisfaction after controlling for procedural justice and interactional justice. A direct effect was found between LMX quality and Job satisfaction (c path). There was a significant positive relationship between LMX quality and job satisfaction ($B = .17$, $t = 10.98$, $p < .05$). Positive relationships were found between LMX quality and all three justice variables (a paths). There were significant positive relationships between LMX quality and distributive justice perceptions ($B = .68$, $t = 8.99$, $p < .05$), procedural justice perceptions ($B = .51$, $t = 9.93$, $p < .05$), and Interactional justice perceptions ($B = .97$, $t = 23.50$, $p < .05$). A positive relationship was found between distributive justice perceptions and job satisfaction (b path). There was a significant positive relationship between distributive justice perceptions and job satisfaction ($B = .07$, $t = 5.54$, $p < .05$).
No other significant relationships were found between the remaining justice variables and job satisfaction. A significant indirect effect was found (a-b path) between LMX quality and job satisfaction through distributive justice perceptions. After controlling for the mediating variables, there was a smaller but
significant direct effect found between LMX quality and job satisfaction ($B = .07$, $t = 2.76$, $p < .05$) (c' path).

Hypothesis 2. Support was found for hypothesis 2(b). Procedural justice perceptions fully mediated the relationship between LMX quality and organizational commitment after controlling for distributive justice and interactional justice. A direct effect was found between LMX quality and organizational commitment (c path). There was a significant positive relationship between LMX quality and organizational commitment ($B = .10$, $t = 2.49$, $p < .05$). A positive relationship was found between procedural justice perceptions and organizational commitment (b path). There was a significant positive relationship between procedural justice perceptions and organizational commitment ($B = .16$, $t = 2.83$, $p < .05$). No other significant relationships were found between the remaining justice variables organizational commitment. A significant indirect effect was found (a-b path) between LMX quality and organizational commitment through procedural justice perceptions. After controlling for the mediating variables, the original direct effect found between LMX quality and organizational commitment was completely negated (c' path).

Moderation Hypothesis

Hypothesis 3 predicted that leader active listening would be related to job satisfaction and organizational commitment. Simple bivariate correlations were run to test for the hypothesized relationships. Hypothesis 4 predicted that leader active listening would moderate the relationship between LMX quality and justice
perceptions. Sequential regression was employed to test for the hypothesized moderation. Prior to analysis, the interaction of LMX quality and leader active listening was centered by calculating z-scores for each variable.

**Hypothesis 3.** Support was found for hypothesis 3(a) and (b). Leader active listening significantly correlated with job satisfaction and organizational commitment. There was a significant positive relationship between leader active listening and job satisfaction ($r = .61, p < .05$) and organizational commitment ($r = .16, p < .05$).

**Hypothesis 4.** Support was found for hypothesis 4(c). Leader active listening moderated the relationship between LMX quality and interactional justice. $R$ was significantly different from zero for each justice construct at the end of step one. After entering LMX quality and leader active listening there were significant positive correlations with distributive justice perceptions ($R = .57, F(2, 238) = 56.53, p < .05$), procedural justice perceptions ($R = .61, F(2, 241) = 70.15, p < .05$), and interactional justice perceptions ($R = .89, F(2, 240) = 459.58, p < .05$). After entering the interaction of LMX quality and leader active listening in step 2, with all the IVs in the equation, there was a significant positive correlation with distributive justice perceptions ($R = .57, F(3, 237) = 37.59, p < .05$), procedural justice perceptions ($R = .61, F(3, 240) = 46.58, p < .05$), and interactional justice perceptions ($R = .89, F(3, 239) = 315.79, p < .05$).

After step 1, with LMX quality and leader active listening entered in the equation, it accounted for 32% of the variance in distributive justice perceptions.
(R^2 = .32, F_{inc}(1, 237) = 56.53, p < .05), 37% of the variance in procedural justice perceptions (R^2 = .37, F_{inc}(1, 240) = 70.15, p < .05), and 79% of the variance in interactional justice perceptions (R^2 = .79, F_{inc}(1, 239) = 459.58, p < .05). After step 2, with the interaction of LMX quality and leader active listening entered in the equation, 80% of the variance in Interactional justice perceptions could be accounted for, R^2 = .80, F_{inc}(1, 239) = 6.64, p < .05. Given LMX Quality and leader active listening, the addition of the interaction resulted in a significant 1% increment in variance accounted for in interactional justice perceptions, sr^2 = .01, F_{inc}(1, 239) = 6.64, p < .05. The addition of leader active listening moderated the relationship between LMX quality and interactional justice; however, the change in effect size was small. The addition of the interaction between LMX quality and leader active listening did not account for additional variance in distributive or procedural justice perceptions.

Tables 2, 3, and 4 display the correlations between the variables, the unstandardized regression coefficients (B) and the intercept, the standardized regression coefficients (β), the semipartial correlations (sr^2), R, R^2, and adjusted R^2 after entry of all three IVs with distributive, procedural and interactional justice perceptions, respectively, as the DV. Figure 3 displays interaction plots representing the relationships between LMX quality and each justice construct under conditions of low and high leader active listening. The moderation effect for interactional justice is clearly displayed. Under conditions of low leader active listening, there was a positive relationship LMX quality and interactional justice
perceptions. Under conditions of high leader active listening, there was a slightly negative relationship between LMX quality and interactional justice perceptions. The plot lines of this relationship intersect when LMX quality and interactional justice are high. Leaders who exhibited active listening were shown to have out-groups (low LMX) with higher interactional justice perceptions than leaders who did not exhibit active listening. In this case, the negative effects of out-group membership on interactional justice perceptions were mitigated by the presence of leader active listening.

Table 2. Sequential Regression of Leader-Member Exchange Quality and Leader Active Listening on Distributive Justice Perceptions (N = 241)

<table>
<thead>
<tr>
<th>Variables</th>
<th>DSJP</th>
<th>LMX</th>
<th>LALS</th>
<th>LMX x LALS</th>
<th>B</th>
<th>β</th>
<th>sr² (incremental)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX</td>
<td>.50*</td>
<td>.50*</td>
<td></td>
<td></td>
<td>.16</td>
<td>.12</td>
<td></td>
</tr>
<tr>
<td>LALS</td>
<td>.56*</td>
<td>.82*</td>
<td></td>
<td>LALS</td>
<td>.95*</td>
<td>.46*</td>
<td>.32*</td>
</tr>
<tr>
<td>LMX x LALS</td>
<td></td>
<td></td>
<td>-.27*</td>
<td>-.44*</td>
<td>-.42*</td>
<td></td>
<td>-.04</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.18</td>
</tr>
</tbody>
</table>

Means: 4.36 5.18 3.55 .82
Standard deviations: 1.88 1.39 .90 1.07

R² = .32
Adjusted R² = .31
R = .57*

*p < .05
Table 3. Sequential Regression of Leader-Member Exchange Quality and Leader Active Listening on Procedural Justice Perceptions (N = 241)

<table>
<thead>
<tr>
<th>Variables</th>
<th>PRJP (DV)</th>
<th>LMX</th>
<th>LALS</th>
<th>LMX x LALS</th>
<th>B</th>
<th>β</th>
<th>sr² (incremental)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX</td>
<td>.55*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.15</td>
<td>.16</td>
</tr>
<tr>
<td>LALS</td>
<td>.60*</td>
<td>.82*</td>
<td></td>
<td></td>
<td>.67*</td>
<td>.46*</td>
<td>.37*</td>
</tr>
<tr>
<td>LMX x LALS</td>
<td>-.27*</td>
<td>-.44*</td>
<td>-.42*</td>
<td></td>
<td>-.01</td>
<td>-.01</td>
<td>.00</td>
</tr>
</tbody>
</table>

Intercept = 1.06

Means: 4.23  5.18  3.55  .82
Standard deviations: 1.31  1.39  .90  1.07

R² = .37
Adjusted R² = .36
R = .61*

*p < .05
Table 4. Sequential Regression of Leader-Member Exchange Quality and Leader Active Listening on Interactional Justice Perceptions (N = 241)

<table>
<thead>
<tr>
<th>Variables</th>
<th>INTJP</th>
<th>LMX (DV)</th>
<th>LALS</th>
<th>LMX x LALS</th>
<th>B</th>
<th>β</th>
<th>sr²</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX</td>
<td>.84*</td>
<td></td>
<td></td>
<td></td>
<td>.43*</td>
<td>.37*</td>
<td></td>
</tr>
<tr>
<td>LALS</td>
<td>.86*</td>
<td>.82*</td>
<td></td>
<td></td>
<td>.93*</td>
<td>.52*</td>
<td>.79*</td>
</tr>
<tr>
<td>LMX x LALS</td>
<td>-.47*</td>
<td>-.44*</td>
<td>-.42*</td>
<td></td>
<td>-.13*</td>
<td>-.08*</td>
<td>.01*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Intercept=</td>
<td>-.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Means: 5.17 5.18 3.55 .82
Standard deviations: 1.61 1.39 .90 1.07

R² = .80
Adjusted R² = .80
R = .89*

*p < .05
Figure 3. Interaction Plots of Moderation Results
In addition to the observed moderation, main effects were found between Leader Active Listening and all three justice variables. There were significant positive relationships between leader active listening and distributive justice perceptions \((B = .95, t = 4.93, p < .05)\), procedural justice perceptions \((B = .67, t = 5.19, p < .05)\), and interactional justice perceptions \((B = .93, t = 10.40, p < .05)\). Similar to LMX, leader active listening directly predicted justice perceptions; however, active listening also moderated the relationship between LMX quality and interactional justice. The interaction demonstrates that LMX may be better understood when a moderator is considered.
CHAPTER FOUR
DISCUSSION

This study sought to clarify leader-member exchange theory and help explain the inconsistencies in prediction of work outcomes found by researchers (Gerstner & Day 1997; Schriesheim, Castro & Cogliser, 1999). Following the suggestions of Scandura (1999), organizational justice perceptions were tested as a mediator between LMX and work outcomes. Scandura predicted that distributive and procedural justice perceptions would act as mediators. The present study supported this notion and revealed an interesting level of detail. Although highly correlated, distributive and procedural justice uniquely contributed to the hypothesized mediation. Interestingly, distributive justice perceptions and procedural justice perceptions each mediated different work outcomes. Distributive justice perceptions were found to partially mediate the relationship between LMX quality and job satisfaction. That is, employees that reported high LMX with their supervisors are predicted to view the distribution of rewards and resources as more fair and therefore have higher job satisfaction. Procedural justice perceptions were found to fully mediate the relationship between LMX quality and organizational commitment. Employees that reported high LMX with their supervisors are predicted to view the process of resource distribution as more fair and therefore have higher organizational commitment.
The idea that different justice constructs mediate different work outcomes warrants consideration. Distributive justice and job satisfaction are typically evaluated by employees as an overall outcome, i.e. are resources and rewards distributed equitably and am I satisfied with my job overall? Whereas procedural justice and organizational commitment are typically evaluated through reflection and projection, i.e. what was the process by which resources were distributed and how committed am I to this organization now and into the future? The current state of resource distribution does not predict future resource distribution as well as an understanding of the process of resource distribution. For example, an employee may evaluate that they have an equitable resource distribution (fair) at the moment, but is also aware that the process of resource distribution is arbitrary or politically-based (unfair). It makes logical sense that organizational commitment would be mediated by procedural justice over distributive justice. Indeed, research has already begun to explore the mediating role of procedural justice perceptions on attitudinal work outcomes (Bhal, 2005; Ansari, Kee & Aafaqi, 2007).

Scandura (1999) and Gerstner and Day (1997) suggested moderator analysis to account for LMX theory's inconsistent prediction of work outcomes. Gerstner and Day (1997) specifically proposed leader-member agreement and antecedents of LMX quality such as relational demography, upward influence, leader-member similarity, and leader and member personality traits as potential moderators. The present study examined leader active listening, and found that
it moderated the relationship between LMX quality and interactional justice, accounting for an additional 1% of the variance in interactional justice perceptions. In this case, interactional justice perceptions were better predicted by LMX in the presence of active listening. However, the moderation effect was small and should be interpreted with caution. Active listening research primarily focuses interactions with customers in a sales environment (Castleberry, Shepherd & Ridnour, 1999; Comer & Drollinger, 1999; Morran, Stockton & Whittingham, 2004; Rutter, 2003). When considered in the context of LMX development, the attentive, information-probing nature of active listening may act as an antecedent of LMX quality by increasing trust and respect and reducing performance attribution errors. A supervisor who exhibits active listening would be seen as interactionally fair above and beyond what the leader-member exchange could provide. In this study, LMX and active listening were significantly correlated. This was expected, as communication is an integral component to LMX formation and maintenance. Despite the significant overlap in variance, active listening was found to moderate the relationship between LMX and interactional justice. Although a small incremental effect, this result provides support for further investigation of different moderating constructs.

Overall, this study provides support for Scandura’s (1999) suggestion that the relationship between LMX and work outcomes could be clarified through the introduction of mediating constructs (distributive and procedural justice perceptions) and moderating constructs (leader active listening). When the
results of the mediation and moderation analysis are considered together, the implications for practical application are significant. If stable leader traits and behaviors can exist across dyads with different levels of exchange quality, then organizations have an opportunity to recruit and develop supervisors who foster higher functioning in-groups and out-groups. For example, an organization may develop competency models for its supervisory positions that include skills and abilities, such as active listening, that have been shown to moderate the effects of leader-member dyads to produce positive work outcomes. These competency models may then be incorporated into the recruitment, selection, and training of more effective supervisors.

Limitations

There are several limitations to this study. The majority of the sample was comprised of young, working students. Many of the student participants were employed part time. This demographic may not have had sufficient time in the workforce or with one employer to develop a mature leader-member exchange relationship with their supervisor. Part-time “college jobs” are generally transactional in nature and may preclude the development of mature LMX relationships. Additionally, employment sought while in college is rarely considered long term or a career. Intended short-term employment may have an impact on the outcome variables of job satisfaction and organizational commitment.
The LMX-MDM scale items (with the exception of the affect subscale) were average into one overall LMX score. The individual subscales were not analyzed as separate IVs. Some researchers have found that certain LMX subscales better predict work outcomes (Bhal, 2005; Ansari, Kee & Aafaqi, 2007). Perhaps the exclusion of the affect subscale or aggregate nature of the LMX variable impacted the potential interaction with active listening; producing the miniscule observed moderation. Additionally, matching supervisor LMX scores were not collected in this study. In their meta-analysis, Gerstner and Day (1997) concluded that a leader-member disagreement plagues LMX research. They suggest that future LMX research should include leader-member agreement as a separate measured variable. However, it was not feasible to collect matching supervisor LMX ratings for the present study.

All variables, with the exclusion of organizational commitment, were found to be highly correlated. The survey scales evaluated subordinate perceptions of the workplace from the perspective of the subordinate. It is possible that general personal affect significantly influenced participant evaluations across the board. That is, someone with a more positive outlook overall will generally provide more positive survey responses. Organizational commitment is less prone to be influenced by affect, which may have resulted in a lower correlation with other variables. In this study, general affect was not assessed or controlled for within the analysis.
Recommendations

Future research should examine other moderating variables in relation to LMX. In addition to stable leader traits and behaviors, other factors such as subordinate traits and behaviors, organizational structure, organizational culture, and organizational climate may enhance explanatory power. For example, Erdogan and Bauer (2010) found that the distributive and procedural justice climate in an organization moderated the relationship between LMX differentiation and negative work outcomes. In this study, it was assumed that active listening is a behavior that supervisors practice consistently across all subordinates. This may not be the case. Active listening may be practiced as a function of LMX quality. Future research should examine leader traits and behaviors that share less variance with LMX quality.

It was found that different justice constructs mediated LMX relationships different work outcomes. Loi, Mao and Ngo (2009) found similar results in their study of organizational social and economic exchange as possible mediators between LMX and organizational commitment. They found that the level of LMX quality predicted the type of organizational exchange (social vs. economic) evaluated by employees which, in-turn predicted organizational commitment. The present study did not specifically examine whether certain mediating justice constructs were activated as a function of LMX quality. Would an employee with high LMX evaluate their overall sense of fairness weighted towards interactional
justice? Would low LMX employees evaluate their overall sense of fairness weighted towards more transactional like distributive justice?

The sample demographic and lack of matching supervisor LMX scores were a severe limitations to this study. Future research should include seasoned, full-time employees who have worked at a single organization for a period of time sufficient to develop a mature leader member exchange relationship. Additionally, leader-member agreement should be measured and assessed.

Conclusion

The results from this study have both theoretical and practical merit. The revisions to the LMX model provide some explanation of past inconsistencies in LMX research. With a clearer understanding of how LMX quality affects justice perceptions and organizational outcomes, organizations may more accurately diagnose issues regarding superior-subordinate interaction and leader effectiveness. This study provides some clarity to LMX research and new directions to a longstanding and popular area of leadership research.
APPENDIX A

SURVEY SCALES
<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My supervisor allows me to express my feelings and thoughts openly without judgment.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor maintains eye contact with me during conversation.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor listens intently when I speak.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor does not interrupt me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor is able to accurately interpret my feelings and emotions.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor asks questions when he/she does not understand the feelings behind my words.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor identifies my feelings when I am speaking with him/her.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor understands my feelings.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor acknowledges my feelings in his/her responses.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor does not care how I feel. (Reverse Score)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor sincerely cares about what I am saying.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor can relate to the feelings I share with him/her.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor accurately restates what I have said.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor addresses my concerns.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>My supervisor summarizes what I say when we are in discussion.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Responses given to me by my supervisor make me feel like</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
he/she did not listen to what I have said. (Reverse Score)

My supervisor allows me the opportunity to elaborate and further explain myself by asking questions that are related to what I am discussing with him/her.

My supervisor asks me probing questions during conversation when necessary.

My supervisor asks questions like “Could you tell me more?”

My supervisor asks for elaboration if he/she has not understood me completely.

Note. Copyright 2006 by Collier, E. S., Locke, T., Prince, R., Crimaldi, C., Cordero, V., Lawton, A., Pengcharoen, C., & Kottke, J. L.
Table A2: Multidimensional Measure of Leader-Member Exchange (LMX-MDM)

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like my supervisor very much as a person.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My supervisor is the kind of person one would like to have as a friend.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My supervisor is a lot of fun to work with.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My supervisor defends my work actions to a superior, even without complete knowledge of the issue in question.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My supervisor would come to my defense if I were &quot;attacked&quot; by others.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>My supervisor would defend me to others in the organization if I made an honest mistake.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I do work for my supervisor that goes beyond what is specified in my job description.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I am willing to apply extra efforts, beyond those normally required, to further the interests of my work group.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I am impressed with my supervisor's knowledge of his/ her job.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I respect my supervisor's knowledge of and competence on the job.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I admire my supervisor's professional skills.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Table A3: 3-Factor Organizational Justice Scale

<table>
<thead>
<tr>
<th>Procedural Justice Item</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The procedures used to make decisions in your organization...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>... allow supervisors to get away with using an inconsistent approach in making decisions. (Reverse Score)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... are consistently applied from one time to the next.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... are consistently applied across different employees.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... make sure that any biases supervisors have will not affect the decisions they make.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... are unbiased.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... dictate that the decisions made will not be influenced by any personal biases people have.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... make sure that the decisions made are based on as much accurate information as possible.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... take into account all the relevant information that should be when decisions are made.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... maximize the tendency for decisions to be based on highly accurate information.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... increase the likelihood that improper decisions will be changed.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... make it very probable that improper decisions will be reviewed.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... provide an opportunity for the reversal of improper decisions.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... do not take into consideration the basic concerns, values, and outlook of employees. (Reverse Score)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... do not take into consideration the basic concerns, values, and outlook of management. (Reverse Score)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
... guarantee that all involved parties can have their say about what outcomes are received.  
1 2 3 4 5 6 7

... ensure that all involved parties can influence decisions.  
1 2 3 4 5 6 7

... are consistent with basic ethical standards.  
1 2 3 4 5 6 7

... are not consistent with my own values. (Reverse Score)  
1 2 3 4 5 6 7

... are unethical. (Reverse Scored)  
1 2 3 4 5 6 7

<table>
<thead>
<tr>
<th>Interactional Justice Item</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>With regard to your supervisor carrying out the procedures at your organization, your supervisor...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>... considers your viewpoint.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... provides you with timely feedback about decisions and their implications.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... treats you with kindness and consideration.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... considers your rights as an employee.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... takes steps to deal with you in a truthful manner.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... provides reasonable explanations for the decisions he/she makes.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... gives adequate reasons for the decisions he/she makes.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>... attempts to describe the situational factors affecting the decisions he/she makes.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distributive Justice Item</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>With regard to your work input, how strongly do you agree with the following statements?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairly rewarded considering the responsibilities.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Fairly rewarded in view of the amount of experience you have.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairly rewarded for the amount of effort you put forth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairly rewarded for the work you have done well.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairly rewarded for the stresses and strains of your job.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table A4: 3-Factor Organizational Commitment Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normative Commitment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that people these days move from company to company too often.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I do not believe that a person must always be loyal to his or her organization (Reverse Score)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Jumping from organization to organization does not seem at all unethical to me (Reverse Score)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>If I got another offer for a better job elsewhere I would not feel it was right to leave my organization</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I was taught to believe in the value of remaining loyal to one organization</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Things were better in the days when people stayed with one organization for most of their careers</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I do not think that wanting to be a 'company man' or 'company woman' is sensible anymore (Reverse Score)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td><strong>Affective Commitment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would be very happy to spend the rest of my career with this organization</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I enjoy discussing my organization with people outside it</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I really feel as if this organization's problems are my own</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I think that I could easily become as attached to another organization as I am to this one (Reverse Score)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I do not feel like 'part of the family' at my organization (Reverse Score)</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
I do not feel 'emotionally attached' to this organization (Reverse Score)

This organization has a great deal of personal meaning for me

I do not feel a strong sense of belonging to my organization (Reverse Score)

**Continuance Commitment**
I am not afraid of what might happen if I quit my job without having another one lined up (Reverse Score)

It would be very hard for me to leave my organization right now, even if I wanted to

Too much in my life would be disrupted if I decided I wanted to leave my organization now

It wouldn't be too costly for me to leave my organization now (Reverse Score)

Right now, staying with my organization is a matter of necessity as much as desire

I feel that I have too few options to consider leaving this organization

One of the few serious consequences of leaving this organization would be the scarcity of available alternatives

One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice—another organization may not match the overall benefits I have here

Table A5: Abridged Job Descriptive Index (AJDI) Scale

<table>
<thead>
<tr>
<th>JDI Facet Choice</th>
<th>Scale Item</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>Gives sense of accomplishment</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Dull</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Satisfying</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Uninteresting</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Challenging</td>
<td>YES ? NO</td>
</tr>
<tr>
<td>Pay</td>
<td>Fair</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Underpaid</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Income adequate for normal expenses</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Well paid</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Insecure</td>
<td>YES ? NO</td>
</tr>
<tr>
<td>Promotion</td>
<td>Good chance for promotion</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Dead-end job</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Promotion on ability</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Good opportunities for promotion</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Unfair promotion policy</td>
<td>YES ? NO</td>
</tr>
<tr>
<td>Supervision</td>
<td>Praises good work</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Annoying</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Tactful</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Bad</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Up to date</td>
<td>YES ? NO</td>
</tr>
<tr>
<td>Coworkers</td>
<td>Helpful</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Boring</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Intelligent</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Lazy</td>
<td>YES ? NO</td>
</tr>
<tr>
<td></td>
<td>Responsible</td>
<td>YES ? NO</td>
</tr>
</tbody>
</table>

Note. JDI Items Copyright 1997, Bowling Green State University.
APPENDIX B

TABLES
<table>
<thead>
<tr>
<th></th>
<th>Affect</th>
<th>Loyalty</th>
<th>Contribution</th>
<th>Professional Respect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyalty</td>
<td>.78*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribution</td>
<td>.35*</td>
<td>.36*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>.67*</td>
<td>.65*</td>
<td>.36*</td>
<td></td>
</tr>
<tr>
<td>Respect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05*
APPENDIX C

INFORMED CONSENT FORM
You are invited to participate in a study being conducted by Erik Collier under the direction of Dr. Janelle Gilbert for a Master's Thesis research project. This study has been approved by the Department of Psychology Institutional Review Board Sub-Committee of the California State University, San Bernardino, and a copy of the official Psychology IRB stamp of approval should appear somewhere on this consent form.

The purpose of this study is to investigate active listening in leaders and its relationship to organizational justice perceptions, organizational commitment, and job satisfaction. Completion of the survey will take approximately 25 minutes.

There are no foreseeable risks associated with this study beyond those of everyday life, or any direct benefit for you as an individual. Results from this study will be reported in group format only so the confidentiality and anonymity of your data will be maintained. Results from this study will not be used by your organization to make any administrative decisions. Results from this study will be available from Dr. Janelle Gilbert (909) 537-5587 after August 31, 2010. If you would like to obtain a copy of the group results of this study, please contact Dr. Janelle Gilbert, (909) 537-5587 after August 31, 2010.

Please read the following before indicating that you are willing to participate.

1. The study has been explained to me and I understand the explanation that has been given and what my participation will involve.
2. I understand that I am free to choose not to participate in this study without penalty, free to discontinue my participation in the study at any time and am free to choose not to answer any questions that make me uncomfortable.
3. I understand that no identifying information will be collected in this study that my responses will remain anonymous. I may request group results of this study.
4. I understand that, at my request, I can receive additional explanations of this study after my participation is completed.

Please do NOT put your name on this questionnaire.

Please place a check or an X in the space provided below to acknowledge that you are at least 18 years old and have read and understand the statements above. By marking the space below you give consent to participate voluntarily in this study.

THANK YOU.

*1. Would you like to participate in this survey?

☐ YES
☐ NO
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