

**LEADER-MEMBER EXCHANGE AND WORK OUTCOMES:  
A MULTIPLE LEADERSHIP PERSPECTIVE**

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## **Abstract**

This study focused on multiple leader-member exchange (LMX) relationships between employees and two different supervisors. Furthermore, the study focused on the relationship that the leaders themselves had with each other (the leader-leader exchange (LLX)). Last, the study focused on the moderating effect that leadership structure (hierarchical or distributed) has on the relationship between LMX and employee outcomes. The study consisted of 111 employee and supervisor dyads from various business sectors. Analysis showed that LMX significantly correlated with affective organizational commitment, job performance, and organizational citizenship behavior (OCB). LMX with a second supervisor did not significantly moderate the relationship between LMX and employee outcomes, but did prove to be an additional predictor with regards to OCB. LLX moderated the relationship between LMX and OCB, but had little effect on affective organizational commitment and job performance. Finally, leadership structure did not moderate any of the hypothesized relationships.

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## **Definition of Key Terms**

For the purpose of this study, the following terms are defined and used in the context of this research:

**LMX**: A two-way relationship between a subordinate and the immediate supervisor of that subordinate (traditional LMX).

**LMX<sub>1</sub>**: Traditional LMX, rated by the member.

**sLMX**: Traditional LMX, rated by the leader.

**LMX<sub>2</sub>**: A two-way relationship between a subordinate and an additional supervisor (who can be of greater or equal status to the immediate supervisor) of the subordinate

**LLX**: Quality of the relationship between the two supervisors, rated by the leader.

**PLLX**: Quality of the relationship between the two supervisors, as perceived by the member.

**“In-Group”**: Supervisors perceive the subordinate to be trustworthy, reliable, and competent. These members are treated as “trusted assistants” by supervisors. This LMX relationship is classified as “a high-quality exchange” (Graen & Cashman, 1975).

**“Out-Group”**: Supervisors perceive the performance of subordinates in this category to be solely based on formal job description. Subordinates do not generally exert extra effort or go above and beyond the employment contract. This LMX relationship is classified as “a low-quality exchange” (Graen & Cashman, 1975).

**Affective Organizational Commitment (AOC)**: Characterized by individuals who remain committed to their organization because of a strong emotional attachment to the organization.

**Organizational Citizenship Behavior (OCB)**: “Individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective and efficient functioning of the organization” (Organ, 1988, p. 4).

**Conscientiousness**: Organizational-dimension of OCB characterized by employees who exceed job norms (e.g., showing up to work on time more than the average employee).

**Altruism**: Individual-dimension of OCB characterized by employees who willingly help co-workers with job-related issues.

## **1. Introduction**

Leader-member exchange (LMX) is a prevalent theory in the leadership literature that focuses on individual dyadic relationships between the supervisor and each of his or her subordinates (Dansereau, Graen, & Haga, 1975). Support has been found for the theory's predictions about various employee outcomes, such as job satisfaction, organizational commitment, career advancement, and organizational citizenship behavior (OCB) (Gerstner & Day, 1997; Ilies, Nahrgang, & Morgeson, 2007). One problem with LMX, however, is that the research has assumed that employees are affected by only one supervisor, which is a grave misconception. Often employees are affected by two or more supervisors at a time, directly or indirectly, and thus a multiple leadership perspective needs to be applied to LMX research (Gronn, 2002). The present study is an attempt to address this issue.

Multiple leadership can take many forms, perhaps the most prevalent being hierarchical systems. An example of a hierarchical system is where an employee answers to a supervisor, and that supervisor answers to his or her own superior. In this case, although the employee might not be interacting with the higher superior on a regular basis, there is still a relationship that exists between the employee and this supervisor. Additionally, middle management, such as the immediate supervisors of lower-level employees, acts as a "linking-pin" to higher management. While higher management possesses much power and resources, an individual located between lower-level employees and higher management is able to obtain resources from the higher-ups and disburse these resources down to the lower-level employees. Thus the relationship

between the middle and upper management (i.e., leader-leader exchange (LLX)) is also of great importance to lower-level employees.

On the other hand, multiple leadership may take the form of distributed leadership as well. This is a system where employees directly answer to two or more managers that are of relatively equal status. A matrix structure, where employees report to two separate managers (e.g., a department manager and a project manager) or situations where two or more supervisors work to fulfill one job (e.g., two assistant store managers) are both examples of distributed leadership. Although there is a lesser “linking pin” mechanism here, distributed leadership is still an important leadership system to consider.

Leaders are important to the employee because leaders possess valued resources that the employee desires. These resources may include employee promotions, favorable job tasks, and company expenses. Moreover, the more supervisors an employee has, the more resources the employee is potentially able to obtain. That is, each leader has access to a unique set of resources that he or she is able to disburse (Erdogan & Bauer, 2007). Thus employees, ideally, should form high-quality relationships with as many leaders as possible in order to obtain as many resources as possible. The present research is an attempt at examining how multiple leadership (i.e., multiple LMXs and LLX) affects employee outcomes, such as affective organizational commitment (AOC), OCB, and job performance.

This study contributes to the LMX literature in several manners. First, many studies have stressed the importance of studying LMX through multidimensional measures (e.g., Bhal & Ansari, 1996; Dienesch & Liden, 1986; Harris, 2004; Liden & Maslyn, 1998), yet the LMX literature is still dominated by studies that focus on

unidimensional measures. Therefore, this study adds to the LMX literature by being one of a few studies to employ a multidimensional (i.e., LMX-MDM) measure of LMX. Second, the concept of multiple leadership is a relatively new concept that has not received much attention. Therefore, the study adds to the small body of literature that exists on multiple leadership. Third, although LMX scholars have recognized OCB as an important employee outcome associated with supervisor-subordinate relationships, it has not yet been adequately examined under the lens of multiple leadership. Finally, multiple leadership research has only focused on hierarchical leadership systems. This study expands upon dual-leadership research by focusing on distributed systems, where an employee answers to two supervisors of equal status. This structure of leadership has not yet been investigated in the LMX literature.

## **2. Review of the Literature**

### *History of Leadership*

Leaders can be characterized in a number of ways, such as a heroic individual who leads an army into battle, the captain of a sports club, or the chief executive officer (CEO) of a multinational company. Furthermore, people are fascinated by the concept of leadership because of the infinite number of questions that arise on the topic (Yukl, 2006). For instance, why are some followers willing to risk everything for a leader, while others do everything that they can to sabotage or disrupt the power of a leader? Despite the fascination with leadership, research on the area did not commence until the early twentieth century (Yukl, 2006).

Early leadership studies focused on individual traits of leaders in an attempt to gain insight into why some leaders are more effective than others. These early leadership studies assumed that there were innate traits that allowed an individual to empower followers (Jennings, 1960). At the time, it was hoped that researchers would be able to pinpoint such innate traits and find the keys to strong leadership (Yukl, 2006). However, as studies on leadership progressed, it became evident that very few leaders act in identical manners. That is, each leader is unique and leads in different ways. Consequently, researchers turned to other means to explain leadership, and leadership research began to focus on the behavioral aspect of leadership. This research focused on two functions of the leader: initiating structure (task structure) and consideration (employee-centered approach) to provide a link between the job itself and the interactive human components (Behling & Schriesheim, 1976).

Fiedler's (1967) contingency theory was the next important component of leadership research that emerged. The theory considers the situation's effect on leadership. The situational factors are: leader-member relations (how well subordinates get along with the leader), task structure (the extent to which subordinate job tasks are clearly and rigidly specified), and position power (the amount of power and influence the leader has over his/her members). This line of research was followed by House and Mitchell's (1974) path-goal theory of leadership and Hersey and Blanchard's (1982) situational theory of leadership.

More recently, research has focused on transactional and transformational leadership (Bass, 1985; Burns, 1978). Transactional leadership relates to how effective and efficient a leader is in the day-to-day operations of their organization.

Transformational leadership relates to the leader's sense of higher purpose to instill motivation, enthusiasm, open-communication, and confidence with subordinates. Both transactional and transformational leadership have been found to have important effects on followers' satisfaction and performance (Bass, Avolio, Jung, & Berson, 2003; Pillai, Schriesheim, & Williams, 1999).

Although leadership research spans a variety of approaches and has sometimes had mixed findings, one area of leadership that is agreed upon is that leadership does not affect a single person, but rather it affects many people (Dienesch & Liden, 1986). In other words, the essence of leadership is not found in the leader per se, but in the relationship that exists between the leader and his or her subordinates. With this in mind, over the past few decades, two popular competing theories have emerged to explain the

supervisor-subordinate relationship: the average leadership style (ALS) and the leader-member exchange (LMX) theory.

Graen and Cashman (1975) define ALS as a “stylistic” way of leading, meaning that leaders have certain behavioral patterns they consistently display with all work units and subordinates. For example, a leader may have a supportive style whereby he or she encourages all of his or her employees and supports them with their many job tasks (House & Mitchell, 1974). Furthermore, theorizing on ALS also suggests that all subordinates within a unit respond similarly to the leader’s demands and concerns. For instance, with regards to the above example, if a supervisor is supportive of his or her subordinates, the subordinates may reciprocate by showing loyalty and support for the supervisor. However, it has been shown that leaders do not interact homogeneously with all of their subordinates. What is more, each subordinate acts differently towards his or her leader and organization (Graen & Cashman, 1975). Therefore, it is not reasonable to make such a generalization. More recently, leadership research has focused on individual dyadic relationships between each subordinate and his or her leader, resulting in a theory that has come to be known as LMX (Dansereau et al., 1975).

#### *Leader-Member Exchange (LMX)*

LMX posits that a leader’s effectiveness is determined by the relationship that the leader has with each of his or her subordinates (Graen & Scandura, 1987). Moreover, LMX theory suggests that a leader develops different quality relationships with each subordinate. In other words, the leader develops high-quality relationships with some subordinates, but not all (Danserau et al., 1975; Graen & Scandura, 1987). The



relationships are not necessarily polarized, but differ on a continuum because no supervisor-subordinate relationship can be identical to another.

Resultant from these differential relationships, in-group members (individuals who have formed high-quality relationships with the leader) and leaders report mutual respect, open communication, shared support, a common bond, and reciprocal obligations (Dienesch & Liden, 1986; Liden & Graen, 1980; Snyder, Williams, & Cashman, 1984). Out-group members, on the other hand, are employees who are simply bound to their job contracts. That is, their relationship with the leader is based on formal job requirements and little else. Given that high-quality LMX is centered on reciprocation, it is appropriate to say that LMX is a form of social exchange.

#### *Social Exchange Theory*

The central tenet of the social exchange theory is that a high-quality relationship is based on terms of reciprocity (Gouldner, 1960). That is, when one gives something, he or she expects something in return. This theory differs from purely economic exchanges because economic exchanges are, in most cases, one time transactions (Blau, 1964; Lavelle, Rupp, & Brockner, 2007). On the other hand, social exchanges are based on the assumption that the individuals involved in the transaction are going to exchange assets, either tangible or intangible, in the near future, and on multiple occasions (Truckenbrodt, 2000). Furthermore, it is assumed that, with social exchange relationships, reciprocation will be of a constant and continuous nature (Blau, 1964). Social exchange relationships also involve a high degree of friendship, mutual trust, and understanding between those involved whereas economic exchange relationships do not.

### *Role Theory*

Within any relationship, there are certain roles that each person has. That is, there are expectations about who is to do what in a relationship (Katz & Kahn, 1966). From the perspective of LMX theory, the roles that supervisors and subordinates take on in a high-quality relationship mature and stabilize over time. The relationship goes through three stages of role-development before it is fully established (Graen & Scandura, 1987).

*Role-taking.* The relationship starts with the initial interaction of the supervisor and subordinate. As both the supervisor and subordinate become acquainted with each other, they assess each other and decide whether the relationship will remain at this stage or evolve into one of higher quality.

*Role-making.* This stage is where the leader and the member have started forming a meaningful relationship. The leader and the member have influence on each other's attitudes and behaviors about the organization and themselves, and a shared reality emerges between the two individuals (Graen & Scandura, 1987; Scandura & Lankau, 1996).

*Role-routinization.* At this point, the leader is depending on the member, and sees him or her as a "trusted assistant." Role-routinization is a relationship built on trust, maturity, and open communication (Graen & Uhl-Bien, 1995). The supervisor will choose the member to complete challenging and rewarding tasks, with full trust that the member will succeed in such a task. The subordinate reciprocates to the leader in several fashions. For instance, the member may reciprocate by covering another employee's duties when that particular employee is away, as this adds to organizational efficiency.

There are multiple employee outcomes that are reciprocated in a high-quality LMX relationship, which will be addressed later.

### *Early LMX Research*

Early research on LMX, or Vertical Dyad Linkage (VDL), as it was known at this time, included a longitudinal study of 60 administrators and 17 supervisors in the housing department of a large public university (Dansereau et al., 1975). The study's first objective was to analyze the relationships that formed with the supervisors and each of their subordinates, respectively. The study showed that in-group members were provided with more support, feedback, and inside information from the leader. The in-group members, in addition, reported fewer job-related issues and invested more effort into organizational goals (Dansereau et al., 1975).

Out-group members, on the other hand, were not given the same treatment from supervisors. Furthermore, out-group members felt less job satisfaction and reported more job-related problems than their in-group counterparts (Dansereau et al., 1975). Many studies found similar results (e.g., Graen, Novak, & Sommerkamp, 1982; Graen & Scandura, 1987), and thus it has been shown that high-quality exchanges are positively correlated with mutual trust, respect, loyalty, interactions, rewards, and reciprocal support. Furthermore, LMX relationships can be formed for many reasons and under many different circumstances, thus the relationship can be multi-dimensional in nature.

### *LMX Dimensionality*

Early theories of LMX discussed the construct as unidimensional and, as such, early investigations used unidimensional measures (e.g., Graen et al., 1982; Graen & Schieman, 1978; Liden & Graen, 1980; Seers & Graen, 1984). However, Dienesch and

Liden (1986) later recommended that the construct of LMX should be viewed as multidimensional because a high-quality relationship can develop in several ways. They suggested that the dimensions of LMX are affect, contribution, and loyalty. Liden and Maslyn (1998) composed a multidimensional scale based on Dienesch and Liden's (1986) suggestions. They formulated a scale consisting of all of the aforementioned dimensions – affect, contribution, and loyalty – as well as the additional dimension of professional respect.

*Contribution.* These individuals contribute a great deal to their work assignments. They are seen as capable and are trusted to complete difficult tasks. These individuals are more likely to receive physical resources (e.g., budgetary support, material, and equipment). Moreover, because this dimension is work-related, it has been tied to employee behaviors like job performance and OCB (Ansari, Lee, & Aafaqi, 2007b; Liden & Maslyn, 1998).

*Loyalty.* This dimension is characterized by leaders and members who publicly defend each other. Loyalty is thought to be important to the development of LMX. Leaders who are loyal to certain followers feel confident in their abilities and will give them a great deal of autonomy with work projects. Leaders are more likely to ask members who are rated favorably in loyalty to complete job tasks that contain a great deal of personal judgment and/or responsibility (Liden & Maslyn, 1998).

*Affect.* These relationships are based on a mutual liking of the leader and member. For instance, both the leader and member might have similar hobbies and interests, outside the work context, and thus have more of a friendship than a work-based relationship. This dimension differs a great deal from contribution because it has little to

do with an individual's work performance. Liden and Maslyn (1998) argue that this construct is related to employee attitudinal outcomes, like job satisfaction, organizational commitment, and perceived organizational support (POS) rather than behavioral outcomes mentioned previously.

*Professional respect.* This is essentially the reputation that an employee or supervisor has. In other words, does the individual have a reputation of excelling at his or her job and assignments? It is possible to have formed a perception about an individual before having met him or her based simply on what one has heard about the other individual. For example, an employee who is known around the organization as somebody who excels at his or her job might be an ideal candidate for a supervisor to form a high-quality relationship with.

Dienesch and Liden's (1986) multidimensional theory of LMX has recently received much attention (see Gerstner & Day, 1997) and many scales have been developed to assess the multidimensionality of the LMX relationship (e.g., Bhal & Ansari, 1996) with the most prominent being Liden and Maslyn's (1998) LMX-MDM. However, a large portion of LMX research continues to use unidimensional measures of LMX (Gerstner & Day, 1997; Graen & Uhl-Bien, 1995; Harris, 2004; Schriesheim, Castro, & Cogliser, 1999). Additionally, there is a plethora of both unidimensional and multidimensional scales found in the literature. Studies making the same predictions have not found similar results; this could be due to the fact that researchers have yet to agree on which LMX scale should be used in the research.

Table 2.1 *Unidimensional LMX Studies*

<b>Author(s) &amp; Year</b>	<b>LMX (Predictor) Measure</b>	<b>Main Criterion Variable(s)</b>	<b>Major Findings</b>
Brandes, Dharwadkar, & Wheatley (2007)	LMX-7	Multiple leadership	Mixed
Erdogan & Bauer (2007)		Multiple leadership	Positive
Hooper & Martin (2007)		LMX Variability	Positive
Hye-Eun , Park, Lee, & Lee (2007)		Feedback	Mixed
Tangirala, Green, & Ramanujam (2007)		Multiple leadership	Positive
Vecchio & Brazil (2007)		Demographics	Positive
Wing, Huang, & Snape (2007)		Feedback	Positive
Ziguang, Wing, & Jian (2007)		Feedback	Mixed
Cambell & Swift (2006)		Similarity	Mixed
Graen, Chun, & Taylor (2006)		Group	Positive
Harris, Kacmar, & Carlson (2006)		Promotion	Mixed
Tepper & Uhl-Bien (2006)		Performance	Mixed
Harris & Kacmar (2005)		Politics	Positive
Harris, Kacmar, & Witt (2005)		Turnover Intentions	Positive
Martin, Thomas, Charles, & Epitropaki (2005)		Locus of Control	Positive
Olufowote, Miller, & Wilson (2005)		Influence Tactics	Non-Supported
Varma, Srinivas, & Stroh (2005)		Culture	Mixed
Wat & Shaffer (2005)		Organizational Citizenship Behavior	Positive
Krishnan (2004)		Influence Tactics	Mixed
Hoffman, Morgeson, & Gerras (2003)		Organizational Citizenship Behavior	Positive
Tekleab & Taylor (2003)		Contract Obligations	Positive
Varma & Stroh (2001)		Demographics	Positive
Cogliser & Schriesheim (2000)		Work Unit	Positive
Truckenbrodt (2000)		Organizational Citizenship Behavior	Mixed
Chun , Law, & Zhen (1999)		Affectivity	Positive
Dose (1999)		Similarity	
Hoffman & Morgeson (1999)		Perceived Organizational Support	Mixed
Pillai, Schriesheim, & Williams (1999)		Cultures	Positive
Mansour-Cole & Scott (1998)		Fairness	Mixed
Wayne, Shore, & Liden (1997)		Perceived Organizational Support	Mixed
Green, Anderson, & Shivers (1996)		Demographics	Positive
Wayne & Green (1993)		Organizational Citizenship Behavior	Mixed

Lapierre, Hackett, & Taggar (2006)	LMX-6	Family	Positive
Gomez & Rosen (2001) Deluga (1998)	IES	Trust Similarity & Organizational Citizenship Behavior	Positive Positive
Dunegan, Duchon, Uhl- Bien (1992)	Other	Performance	Positive

*Note.* IES = Information Exchange Scale; Positive = Hypotheses were generally supported; Mixed = Hypotheses were partially supported; Non-Supported = Main hypotheses were non-supported by the data.

Table 2.2 *Multidimensional LMX Studies*

Author(s) & Year	LMX (Predictor) Measure	Main Criterion Variable(s)	Major Findings
Ansari, Hung, & Aafaqi (2007a) Erdogan & Enders (2007) Bauer, Erdogan, Liden, & Wayne (2006) Erdogan & Liden (2006) Liden, Erdogan, Wayne, & Sparrowe (2006) Sparrowe, Soetjipto, & Kraimer (2006) Hui, Law, Hackett, & Duanxu (2005) Lee (2005) Erdogan & Bauer (2004) Erdogan, Kraimer, & Liden (2004) Kee, Ansari, & Aafaqi (2004) Murphy, Wayne, Liden, & Erdogan (2003) Yrle, Hartman, & Galle (2003)	LMX-MDM	Fairness  Multiple leadership Extraversion  Collectivism Group Performance  Influence Tactics  Organizational Citizenship Behavior  Organizational Commitment Fit Perceived Organizational Support Fairness  Fairness  Communication Style	Mixed  Positive Positive  Mixed Mixed  Mixed  Positive  Mixed Mixed Mixed Positive  Mixed  Mixed
Bhal, Ansari, & Aafaqi (2007) Bhal & Ansari (2007) Perizade & Sulaiman (2005)	QI (10 items)	Demographic  Fairness Leader Effectiveness	Mixed  Mixed Positive
Adebayo & Udegbe (2004) Borchgrevink & Boser (1997)	Other	Demographics Antecedents	Positive Mixed

*Note.* QI = Quality of Interaction; Positive = Hypotheses were generally supported; Mixed = Hypotheses were partially supported.

Table 2.1 represents a sample of unidimensional LMX research and Table 2.2 represents a sample of multidimensional LMX research. Table 2.1 and Table 2.2, when aggregated, show a list of 55 studies conducted on LMX. The list is by no means exhaustive, but can be considered a representation of LMX research thus far. The list includes many recently articles published in peer reviewed journals, from 1992-2008, with the majority published within the past four years. Table 2.2 does show that LMX-MDM has become a popular measurement over the past four years. However, one can see that the majority of the studies continue to employ unidimensional measurements despite Dienesch and Liden's (1986) recommendations. In fact, 37 out of the 55 studies (67%) used unidimensional measures. What is more, to my knowledge, four studies have attempted to investigate LMX and multiple leadership, and only one of these studies (Erdogan & Enders, 2007) has employed a multidimensional measure of LMX. As it is believed that multiple high-quality relationships can form for several reasons, the LMX-MDM multidimensional measure will be applied to this study.

#### *LMX and Employee Outcomes*

The literature has shown LMX, rated by the member and the leader, to be highly correlated with several employee outcomes (Gerstner & Day, 1997). The most prominent of these outcomes are attitudinal outcomes (i.e., job satisfaction, retention/turnover, and organizational commitment) and behavioral outcomes (i.e., job performance and organizational citizenship behavior (OCB)). In regards to the current research, predictor hypotheses (that have already been shown in the literature) are formulated in this section, followed by moderating hypotheses in the next section. It is also important to note that



the predictor (LMX) was analyzed from the perspective of the member (LMX<sub>1</sub>) and the leader (sLMX).

### *Attitudinal Outcomes*

Research on LMX and job satisfaction has yielded mixed results. Dansereau et al. (1975), Graen, Liden, and Hoel (1982), and Scandura and Graen (1984) all showed evidence of positive relationship existing between LMX and job satisfaction. In addition, Pillai, Scandura, and Williams (1999) showed LMX to be highly correlated with job satisfaction across multiple countries and cultures. On the other hand, Graen and Ginsburg (1977), Liden and Graen (1980), and Vecchio and Gobdel (1984) all found no correlation between LMX and overall job satisfaction. Gerstner and Day's (1997) meta-analysis, however, suggests that the overall effect size for LMX and satisfaction is quite high, and thus is a reliable correlation.

Research on LMX and turnover has also produced mixed results. Many studies have found a negative relationship between LMX and turnover (e.g., Dansereau et al., 1975; Ferris, 1985; Graen & Ginsburgh, 1977; Graen et al., 1982). On the other hand, Vecchio (1985) and Vecchio, Griffeth, & Hom (1986) both found non-significant effects of LMX on turnover. Gerstner and Day (1997) confirmed that there is little consensus on whether the quality LMX relationship has an effect on turnover. They suggest that before we abandon the relationship between LMX and turnover, mediators and moderators should be further investigated.

*Organizational commitment.* Organizational commitment is a very important component to organizational effectiveness (Meyer, Allen, & Smith, 1993). It is represented by an individual who is highly attached to the organization to which he or she

belongs. Mowday, Steers, and Porter (1979) state that organizational commitment consists of three components: (a) an acceptance of the organization's goals, (b) a willingness to work hard for the organization, and (c) a great desire to stay with the organization. Furthermore, organizational commitment has been negatively associated with absenteeism, turnover, and tardiness (Mowday, Porter, & Steers, 1982). In addition, the concept of organizational commitment has been expanded upon by Meyer et al. (1993) to incorporate three distinct components of organizational commitment: continuance, normative, and affective commitment.

*Continuance organizational commitment* is exemplified by individuals who remain with the organization because of a lack of other options. These individuals stay committed to organizations because they may require the substantial benefits or salary that the organization provides or because they cannot find a better job in their current area (Meyer et al., 1993).

*Normative organizational commitment* relies on the values of the individual, as the person believes he or she owes it to the company to remain there (Meyer et al., 1993). For example, expecting mothers who go on maternity leave may come back to an organization. The organization gave her the time off to fulfill her maternal obligations, so she feels that she needs to repay the favor by staying with the organization, even if other opportunities arise.

*Affective organizational commitment (AOC)* is exemplified by individuals who remain with the organization because of a strong emotional tie to that organization. These individuals respect the organization, are content with their current surroundings, and want to help the organization prosper (Meyer et al., 1993). In fact, affective

commitment has been regarded as the most effective and desired form of organizational commitment (Wayne et al., 1997).

*LMX and AOC.* LMX has been tied to AOC for over 25 years. Results from these studies have been mixed, with some research finding a significant relationship between LMX and organizational commitment (Duchon et al., 1986; Liden, Wayne, & Sparrowe, 2000) while others have failed to replicate these findings (e.g., Green, Anderson, & Shivers, 1996). However, non-significant findings could be associated with too great a focus on work-related relationships (i.e., contribution). As suggested earlier, different dimensions of LMX lead to different outcomes. Affect is a dimension that is more likely to lead to positive attitudes like AOC (Ansari et al., 2007a; Dienesch & Liden, 1986; Liden & Maslyn, 1998). Thus, a relationship that lacks in this dimension will likely lack commitment by the employee as well.

Affective commitment of an in-group member exists because the member perceives a positive social exchange relationship with his or her immediate supervisor. Therefore, organizational commitment is considered a form of reciprocation. That is, the leader provides the employee with tangible (e.g., pay raises or favorable job tasks) or intangible resources (e.g., empowerment and autonomy) and the employee reciprocates to the leader by his or her devotion to the company and its goals and purpose (Dansereau et al., 1975). Therefore, in line with previous LMX research, I predict the following:

*H1: LMX is positively related to AOC. Specifically, relative to other LMX dimensions (contribution, loyalty, and professional respect), affect has a stronger impact on AOC.*

### *Behavioral Outcomes*

*Job performance.* Research shows that high-quality LMX relationships are associated with higher ratings of employee performance by management than low-quality relationships. That is, employees involved in high-quality relationships with their supervisors are individuals who regularly and accurately perform their essential job duties (Duarte, Goodson, & Klich, 1993; Duchon et al., 1986; Graen & Ginsburgh, 1977). Moreover, members who are known to be excellent performers often make ideal candidates for high-quality relationships with leaders. In addition, job performance is completely job-related; therefore, high job performance is likely to be reported when there is a high degree of contribution in the LMX relationship. In line with previous findings, I hypothesize:

*H2: LMX is positively related to job performance. Specifically, relative to other dimensions (affect, loyalty, and professional respect), contribution has a stronger impact on job performance.*

*Organizational citizenship behavior (OCB).* OCB is defined as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate promotes the effective and efficient functioning of the organization” (Organ, 1988, p. 4). Some examples consist of picking up the receptionist’s phone when he or she is away from his or her desk, staying an extra couple of minutes for a shift when relieving staff are running late (i.e., unpaid overtime), and making suggestions on how to improve productivity within the company.

There is a plethora of opinions of what constitutes an organizational citizenship behavior. In fact, approximately 30 different dimensions of OCB have been identified in the literature (Coleman & Borman, 2000; Dewett & Denisi, 2007; Podsakoff,

MacKenzie, Pain, & Bachrach, 2000). However, two dimensions are commonly used in the literature: altruism and conscientiousness (Organ, 1988; Podsakoff, Mackenzie, Moorman, & Fetter, 1990) and will be applied to the current study.

*Altruistic* behaviors are those that help co-workers with some form of a job-related issue (Podsakoff et al., 1990). An example is an employee who volunteers to proofread a co-worker's report to ensure there are no content or grammatical errors before the co-worker submits the report to a supervisor. This OCB is individually-directed, as it is directed towards specific parties and situations. On the other hand, OCB can be organizationally-directed as well, as it is with conscientiousness.

*Conscientiousness* relates to an employee who exceeds minimum job role norms. An example is an individual who does not abuse coffee and lunch breaks. The individual only takes breaks when he or she is permitted, and does not return late from the designated breaks. This OCB is more general than individual-directed behavior. That is, it is directed towards going above and beyond for the organization as a whole rather than for a specific party. Given that OCB (both individual and organizational) have been shown to increase organizational effectiveness, it is important that we look for causes of such behaviors.

*LMX and OCB.* Organ and Ryan (1995) showed that individuals who are highly satisfied with their jobs, have high levels of AOC, feel they have been treated fairly, and have a high-quality relationship with their supervisor are the most likely to perform OCB. Indeed, Ilies et al. (2007) confirm that there is a trend showing that high-quality LMX relationships lead to higher levels of employee OCB. The same exchange explanation as for LMX and AOC applies to LMX and OCB. That is, people who perform OCB often

do so to reciprocate a social exchange between the employee and his or her immediate supervisor. The supervisor provides the employee with tangible and intangible resources and the employee, wanting to remain a part of the in-group, responds by performing OCB (Ilies et al., 2007).

OCB and job performance tend to correlate very highly with each other. Therefore, many researchers and practitioners believe that OCB are part of one's job performance, even if they are not explicitly stated in the formal employee contract (Ilies et al., 2007; Podsakoff et al., 2000). In light of this correlation, performance will be controlled when analyzing the relationship between LMX quality and different dimensions of OCB, and vice versa to show the distinctiveness of the constructs. In addition, as is the case with job performance, OCB are more likely to be performed when there is a high contribution dimension to the LMX relationship. Therefore, in line with past LMX research, I hypothesize that:

*H3: LMX is positively related to OCB (altruism and conscientiousness). Specifically, relative to other dimensions (affect, loyalty, and professional respect), contribution has a stronger impact on OCB.*

#### *Moderators of LMX-Outcomes Relationships*

LMX has been applied to various situations and contexts. The theory is most widely seen as an antecedent of employee attitudes and behaviors, such as organizational commitment and OCB (Gerstner & Day, 1997). However, LMX has also been found to be an outcome of employee attitudes and behaviors. That is, employees who are committed to the organization or perform OCB are noticed by superiors, and a high-quality LMX emerges. Therefore, LMX can act as a predictor and a consequence of important employee attitudes and behaviors. In addition, LMX moderates and mediates

in several relationships, with some of the most recent being justice, climate, person-job fit, and trust (Deluga, 1998; Erdogan, Liden, & Kraimer, 2004; Gomez & Rosen, 2001; Hoffman et al., 2003; Lavelle et al., 2007). However, several researchers have suggested that the correlations between LMX and employee outcomes are still lacking, and we should look for more moderators and mediators (e.g., Erdogan & Enders, 2007; Lavelle et al., 2007) of the relationship. Given this gap in the literature, multiple leadership may shed light on the issue (Erdogan & Bauer, 2007).

### *Multiple Leadership*

Gronn (2002) suggests that it is not important that one individual has the ability to perform every essential leadership function of a department; it is only important that, collectively, these essential functions are performed. That is, it is not a flaw in an organization to rely on several people to make decisions, or to have multiple individuals look after one aspect of the organization. For example, it would be ill-advised to assume that one individual should supervise and look after the responsibilities of accounting, human resources, marketing, and sales within a certain company, especially if that company is relatively large. Also, a department might consist of over a hundred people, and one person cannot easily supervise this many employees.

In addition, leaders are important to the employee because leaders possess valued resources that the employee desires. These resources may include employee promotions, favorable job tasks, and company expenses. Moreover, the more supervisors an employee has the more resources the employee is potentially able to obtain. Each leader has access to a set of unique resources that he or she is able to disburse (Erdogan & Bauer, 2007). Therefore, as Gronn (2002) suggests, it is important that we incorporate

the concept of multiple leadership into leadership research because it is a vital component of today's organizations.

The current study employs a multiple leadership perspective to LMX theory and its relation to AOC, job performance, and OCB. That is, instead of solely focusing on the relationship an employee has with his or her immediate supervisor, this research focuses on the relationship that the employee has with two supervisors. These relationships are important because, according to social exchange theory, individuals are able to form relationships with multiple individuals, some of high quality and some of low quality (Blau, 1964). An employee who reports to multiple supervisors, indirectly or directly, might form different quality relationships with each supervisor, respectively. The quality of each relationship should play a role in the extent that the employee reciprocates (i.e., AOC, job performance, and OCB).

Furthermore, the relationship that two leaders have with each other is also of great importance to the employee. For example, the employee need not have high-quality relationships with both supervisors to obtain favorable resources from both parties. In other words, the employee may be able to obtain resources from one supervisor indirectly through the other supervisor if a high-quality relationship with both is not possible but if the supervisors have a high-quality relationship with each other (i.e., leader-leader exchange (LLX)) (Erdogan & Bauer, 2007). Therefore, the employee is likely to reciprocate through the aforementioned employee outcomes if this situation is present. Additionally, if a member does have a high-quality relationship with each supervisor and the supervisors have a high-quality relationship with each other, the relationship between LMX and employee outcomes is further intensified. Thus there is a three-way interaction



that occurs between the employee and the two supervisors (see Figure 2.1). Furthermore, both hierarchical and distributed forms of organizational structures exhibit the multiple leadership phenomena, so both structures are incorporated into the current research.

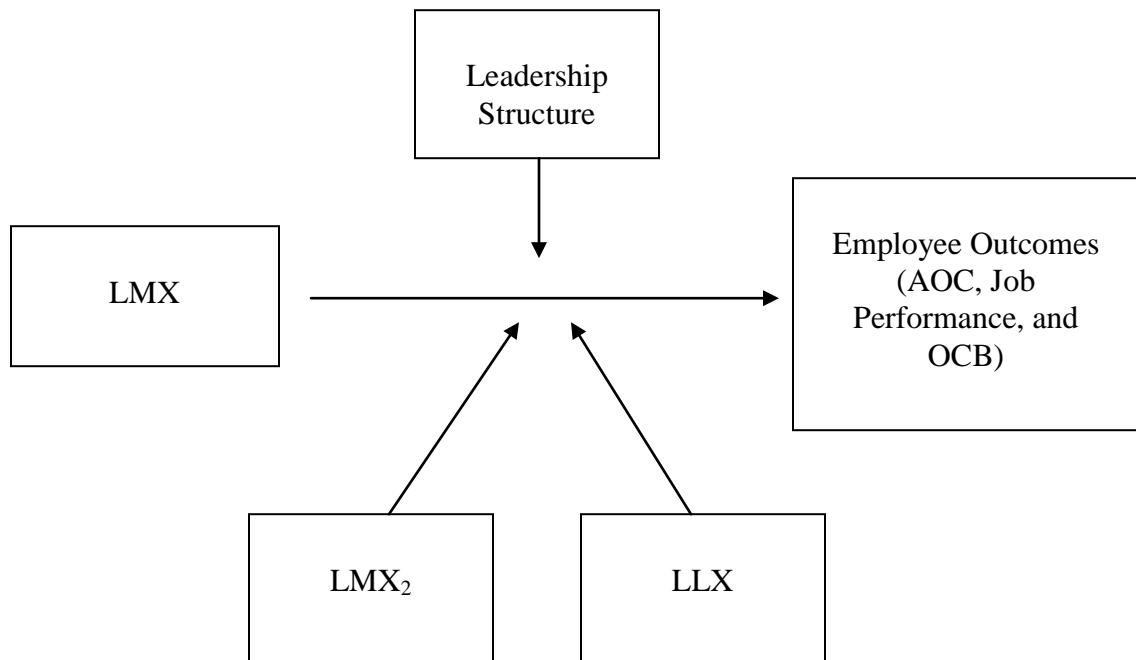


Figure 2.1. Theoretical framework.

### *Hierarchical Leadership*

Hierarchical leadership structures represent the traditional form of leadership structure that has existed since the inception of organizations. These are structures where there are multiple levels of command. For instance, entry-level employees report to lower-level managers, who report to mid-range managers, who report to VPs, who report to CEOs, and so on. The structure of the organization is important in LMX research because LMX quality has been shown to be affected by both the relationship between the immediate supervisor and the member, and also by the relationship between the immediate supervisor and his or her respective superior. Graen and Cashman (1975) suggested that the relationship that a leader has with his or her superior has profound

influences on the member. Mainly, an in-group leader (a leader who has a high quality relationship with his/her superior) is privy to inside information “from the top.” The in-group leaders also report more participation in organizational decision-making and are given greater job laterality, whereas out-group leaders do not receive the same benefits and are given less support and consideration (Graen & Cashman, 1975).

Leaders who form high-quality relationships with their superiors are seen by subordinates as more “technically competent and as possessing greater reward potential than those failing to develop such exchanges” (Graen & Cashman, 1975, p. 147). In other words, from the perspective of the subordinate, the more positive the relationship a leader has with his or her superior, the more resources a leader is able to obtain from that particular superior. The resources obtained from the superior can be distributed down to the lower leader’s subordinates. Thus, subordinates may form high-quality relationships with their immediate supervisors in hopes of obtaining resources from higher authorities (see Figure 3.2).

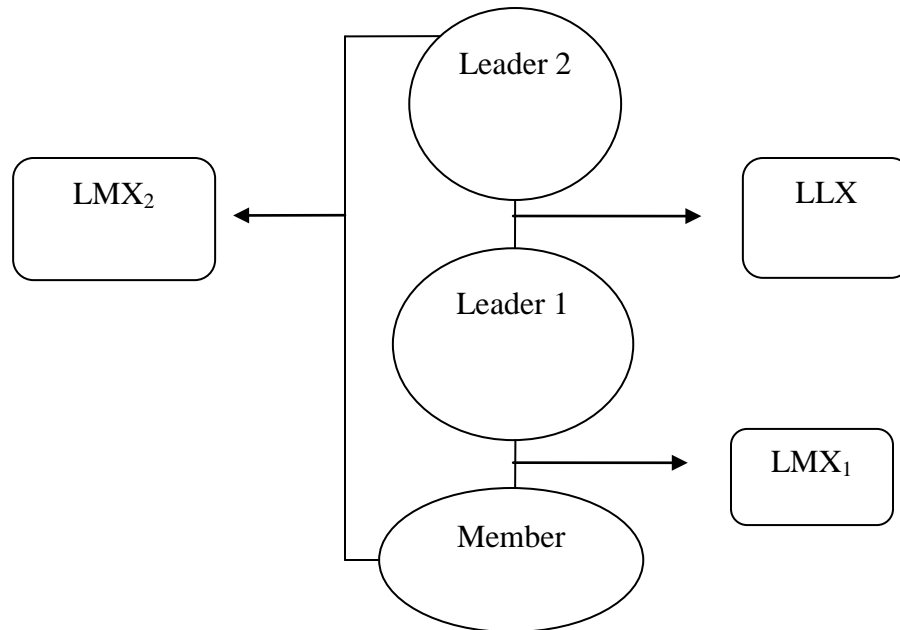


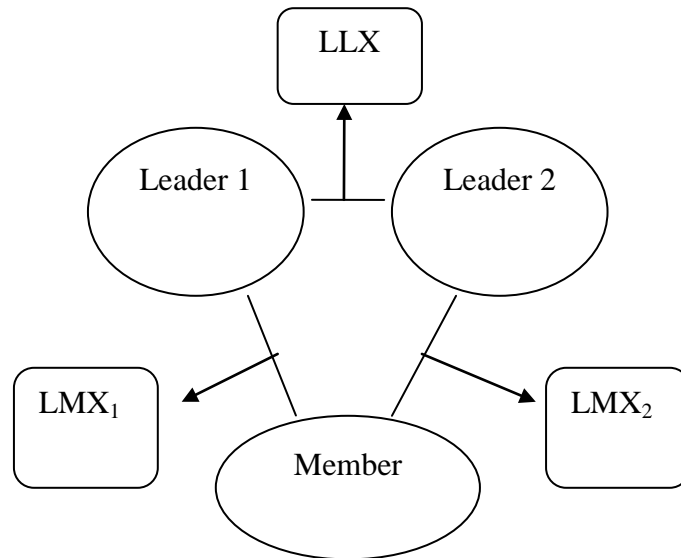
Figure 2.2. Model of LMX and LLX relationships for hierarchical leadership structures.

### *Distributed Leadership*

Many of today's businesses have abandoned hierarchical organizational structures and have incorporated flat or matrix-like organizations (Erdogan & Bauer, 2007). Matrix structures are set up so that employees answer to multiple superiors of the same level. For instance, employees may answer to a department leader as well as a project manager or team leader (Erdogan & Bauer, 2007). In addition, the customer service industry provides an additional illustration of the multi-leadership and distributed leadership phenomena. In the customer service industry, employees must answer to several equal superiors (Schnonberger, 1974). For instance, in the fast food sector of this industry, employees have several assistant managers as well as a store manager (see Figure 3.3)

Supervisors may be of relatively equal status; however, that is not to say each supervisor has identical influence and resources. For example, the two supervisors could

be equal but work for different departments of the organization. Therefore, the two supervisors might have substantially different social networks from which to gain resources. The supervisors are able to influence their own areas, respectively, and obtain resources from those areas. Hence employees should form high-quality relationships with as many leaders as possible to obtain as many resources as possible.



*Figure 2.3. Model of LMX and LLX relationships for distributed leadership structures.*

#### *Development of Moderator Hypotheses*

##### *Multiple LMX Relationships*

Erdogan and Bauer (2007) suggested the importance of focusing on the relationships that the members have with immediate supervisors as well as upper management to help explain additional commitment by the employee. They found that employees form relationships with both leaders, because these relationships lead to the attainment of more resources. In turn, high-quality relationships with both leaders lead to greater reciprocation of the employee through organizational commitment and job

satisfaction. However, a relationship formed with higher management (LMX<sub>2</sub>), was shown to be more beneficial because the employee can obtain far more resources through that relationship.

In a similar vein, Brandes et al. (2004) looked to explain the effect multiple leadership has on job performance and OCB. They included a variable that looked at the relationship that the lower level member has with the top management, but in a general sense. In other words, this research focused on the member's perception of top management as a whole and how that affected job performance and OCB. Top management in this case consisted of CEOs, controllers, and Vice Presidents (VPs). They received mixed support for their hypotheses. Brandes et al. (2004) suggest that this could have been because top management effectiveness could not be generalized. Some managers were seen as capable whereas others were not (Brandes et al., 2004). Furthermore, Brandes et al. (2004) used a unidimensional measure (i.e., LMX-7) thus the study lacked a focus on multidimensionality. In either case, this stream research warrants more investigation.

Additionally, although distributed leadership research has yet to focus on the individual relationships the employee has with both leaders, the results should closely mirror the findings found in the hierarchical leadership research thus far. That is, multiple high-quality LMX relationships will lead to higher organizational commitment, job performance, and OCB because these employees are obtaining substantially more resources than others, and thus need to reciprocate to a higher degree. Thus I hypothesize that:

*H4a: LMX<sub>2</sub> moderates the relationship between LMX and AOC such that the positive impact of LMX is stronger for a high-quality relationship with another leader than for a low-quality relationship with another supervisor.*

*H4b: LMX<sub>2</sub> moderates the relationships between LMX and job performance such that the positive impact of LMX is stronger for a high-quality relationship with another leader than for a low-quality relationship with another leader.*

*H4c: LMX<sub>2</sub> moderates the relationships between LMX and OCB such that the positive impact of LMX is stronger for a high-quality relationship with another leader than for a low-quality relationship with another leader.*

#### *Leader-Leader Exchange (LLX)*

Another variable must be considered in the current research to truly understand the phenomenon of multiple leadership, that is the exchange between the leaders themselves (LLX). Tangirala et al. (2007) conducted a study that focused on the relationships of the supervisor-subordinate and supervisor-superior dyads. They found that, although a high-quality relationship between the leader and the member did have significant positive effects on employee outcomes, such as organizational identification and perceived organizational support, these effects were much stronger when the two leaders had a strong relationship amongst themselves, leader-leader exchange (LLX) (Tangirala et al., 2007).

Additionally, Erdogan and Bauer (2007) found that high-quality relationships formed with immediate supervisors are more effective at increasing positive employee outcomes when the immediate supervisor has a high-quality relationship with his or her superior. In other words, if the employee is not able to form a high-quality relationship with higher management, perhaps because of a lack of interaction or contact, the intermediate supervisor can provide a link and thus provide more resources.

From another perspective, Carson, Tesluk, and Marrone (2007) suggest the positive effects of having distributed leadership as it relates to LLX. They found a positive relationship between distributed leadership and team performance. More specifically, they found that teams were much more effective when there was shared leadership rather than one focal leader because multiple leaders bring multiple perspectives to the forefront. They also found that when the two leaders trust each other and are considerate of the other's point of view, thus exhibiting high-quality LLX, team member and leader commitment increases. Therefore, in both leadership structures, high-quality LLX strengthens the link between LMX and organizational commitment.

Interestingly, research has yet to investigate the LLX phenomenon in relation to job performance and OCB. Theoretically, any high-quality LMX relationship should be positively related to job performance and organizational citizenship behavior, in some fashion. That is, if the member is obtaining resources, he or she will want to reciprocate the relationship through these forms of positive behavioral outcomes. In addition, if the member does not have a high-quality relationship with one of the supervisors, he or she may be able to obtain things from that supervisor, indirectly, through the other supervisor (Erdogan & Bauer, 2007). On the other hand, assuming the employee has high-quality relationships with both supervisors, the two supervisors might have conflicting goals that are being passed down to the member. The member might feel frustrated and confused, and thus see little benefit in performing to the best of his or her abilities or engaging in OCB. In contrast, if the two leaders have a strong relationship with each other, and the member has strong relationships with each individual leader, then the employee should

feel comfortable and more obligated to engage in employee outcomes, such as essential job duties and OCB. Thus I hypothesize that:

*H5a: LLX moderates the relationship between LMX and AOC such that the positive impact of LMX is stronger for a high-quality relationship between the two leaders (perceived by the leader) than for a low-quality relationship between the two leaders (perceived by the leader).*

*H5b: LLX moderates the relationships between LMX and job performance such that the positive impact of LMX is stronger for a high-quality relationship between the two leaders (perceived by the leader) than for a low-quality relationship between the two leaders (perceived by the leader).*

*H5c: LLX moderates the relationships between LMX and OCB such that the positive impact of LMX is stronger for a high-quality relationship between the two leaders (perceived by the leader) than for a low-quality relationship between the two leaders (perceived by the leader).*

On another note, LLX is said to be important to the member because he or she is able to “perceive” a high-quality relationship between the two leaders and may believe that he or she can obtain more resources from that other supervisor, indirectly (Erdogan & Bauer, 2007). However, despite this theory, LLX is yet to be examined from the perspective of the member. Therefore, to be able to say with greater certainty that LLX is having an effect on the employee, a perceived leader-leader exchange (PLLX) must be employed. It is hoped that PLLX will overlap, to some extent, with LLX. Thus I hypothesize that:

*H6a: PLLX moderates the relationship between LMX and AOC such that the positive impact of LMX is stronger for a high-quality relationship between the two leaders (perceived by the member) than for a low-quality relationship between the two leaders (perceived by the member).*

*H6b: PLLX moderates the relationships between LMX and job performance such that the positive impact of LMX is stronger for a high-quality relationship between the two leaders (perceived by the leader) than for a low-quality relationship between the two leaders (perceived by the member).*



*H6c: PLLX moderates the relationships between LMX and OCB such that the positive impact of LMX is stronger for a high-quality relationship between the two leaders (perceived by the leader) than for a low-quality relationship between the two leaders (perceived by the member).*

### *Leadership Structure*

The last aspect to address in the current research is the impact of leadership structure on the relationship between LMX and employee outcomes. I speculate that both forms of LLX (LLX-hierarchical and LLX-distributed) will moderate the relationship between LMX and employee outcomes. However, the immediate supervisor in the hierarchical structure acts as a “linking-pin” between the lower-level employee (i.e., member) and higher management. On the other hand, the “linking-pin” mechanism disappears in the distributed structure because the employee has substantial interaction with both supervisors. Thus I hypothesize that:

*H7a: Leadership structure will moderate the relationship between LMX and AOC such that the positive impact of LMX is stronger for hierarchical leadership structures than for distributed leadership structures.*

*H7b: Leadership structure will moderate the relationship between LMX and job performance such that the positive impact of LMX is stronger for hierarchical leadership structures than for distributed leadership structures.*

*H7c: Leadership structure will moderate the relationship between LMX and OCB such that the positive impact of LMX is stronger for hierarchical leadership structures than for distributed leadership structures.*

### 3. Methodology

#### *Sample*

One hundred and thirty-one supervisor/subordinate dyads (131 employees and 28 supervisors) were invited to participate in the current study. The dyads consisted of employees and an immediate supervisor of the employee. Information from dyads was collected to have two sources of data reporting on different employee outcomes, thus reducing common method bias, as suggested by Podsakoff, Bommer, Podsakoff, and MacKenzie (2006). The dyads had to meet the criteria for hierarchical (i.e., an organization with multiple levels of leadership) or distributed (i.e., organizations where employees report to two or more supervisors of relatively equal status) structures.

In total, 116 employees (response rate = 86%) and 28 supervisors (response rate = 100%) completed the survey. Four surveys were unmatched because employees reported on different relationships than the supervisors and one survey was unusable because it was an extreme outlier on all predictor, moderator, and criterion variables, thus a sample of 111 dyads (111 employees and 28 supervisors) was used in the analysis. A *t*-test compared the differences in job performance of respondents and non-respondents to ensure there was no difference between respondents and non-respondents (Brandes et al., 2004). This approach was feasible because of the 100% supervisor response rate. The *t*-test showed that there were no significant differences between respondents and non-respondents. From the 111 dyads used in the analysis, 59% came from hierarchical leadership structures and 41% came from distributed leadership structures. In addition, the dyads represented a variety of sectors (35% non-profit organizations, 34 % service

industries, 27% educational settings, and 4% manufacturing industries) located in Western Canada.

The participant employees were predominantly female (74%), full-time employees (90%), who had worked for their organization for an average of four years, and worked for their immediate supervisor for an average of one year. In addition, employees ranged in age from 16 to 63 years ( $M = 30.62$ ,  $SD = 11.42$ ). In terms of education, 23% had high school diplomas or below, 36% had diplomas, 31% had Bachelor degrees, and 9% had Master degrees. The majority of the employees were Caucasian (92%) followed by Asian and Bi-racial (3% each) and other races (3%). Positions held by employees mainly consisted of educational instructors (27%), youth social service workers (24%), professional accountants (12%), and bank representatives (10%).

The 28 immediate supervisors were predominantly female (75%), working full-time hours (97%), and had worked for their organizations for an average of six years. The age of the immediate supervisors ranged from 22 to 60 years ( $M = 37.72$ ,  $SD = 11.00$ ). The educational levels also varied (6% high school diplomas or less, 20% diplomas, 63% Bachelor degrees, and 11% Master degrees). The majority of the supervisors were Caucasian (94.6%) followed by Asian (5.4%). The majority of the supervisors considered themselves to be middle-level management (66%) followed by lower-level (28%) and top-level (6%). The supervisors had between one and nine subordinates that directly reported to them ( $M = 2.96$ ,  $SD = 1.86$ ).

If we compare a few of the demographics of the employees and supervisors, it is apparent that both populations were predominantly female, worked full-time hours, and

were Caucasian. Supervisors, on average, worked for the organization for two more years than subordinates. The supervisors tended to be seven years older than their subordinates. Last, supervisors tended to have more post-secondary training than their subordinates.

### *Procedure*

The researcher contacted companies in person, by phone, and/or by e-mail, and inquired about their interest in participating in the study. It was also necessary to ensure that they had the leadership structures needed for this study (i.e., hierarchical or distributed). Upon receiving approval from the organizations, various methods were used to administer the surveys, which included distributing them in person, by e-mail, or by mail.

With regards to the distributed leadership structures, it was most often the case that employees had more than two supervisors. In these instances, a list of employees and supervisors was obtained from the organization, and these employees were asked to report on only two supervisors, arbitrarily chosen by the researcher. The same two supervisors reported on their relationship with each other. In addition, the employees were divided equally among the two supervisors and they reported on their relationships with the employees assigned to them.

There were two types of surveys: one filled out by the employee and one filled out by an immediate supervisor of the same employee. Supervisors were provided two sections. The first section contained mostly demographic information and was only required to be filled out once. The second section was a short two-part survey that was to be filled out for each of the supervisor's subordinates. On average, each supervisor filled

out approximately three employee surveys each. If supervisors had more than four employees, they were asked to pick four of their employees randomly and report on their relationships with those four employees. However, supervisors were often amenable to filling out more than four surveys. Employees were provided with one survey each. The employees and supervisors provided their full names and the full names of the individuals assessed in each relationship, to ensure proper matching.

To collect the surveys, in most cases, participants were given an envelope with the survey enclosed and asked to seal it upon their completion of the survey. The researcher then collected the completed surveys in person. In some instances, employees were provided with stamped and pre-addressed envelopes and the envelopes were sent directly to the researcher. In other instances, the survey was emailed directly to respondents and they emailed the surveys back to the researcher upon completion. Again, t-tests revealed that there were no significant differences in employee performance between methods of data collection. All participants were offered the opportunity to be entered in a draw for a \$100 gift certificate to a local shopping mall. Three gift certificates were distributed in total.

### *Measures*

The surveys assessed four major constructs: LMX, AOC, job performance, and OCB. These four constructs have been investigated extensively in the LMX literature (Ansari et al., 2007b; Bhal & Ansari, 2007; Erdogan & Bauer, 2007; Hung et al., 2004; van Breukelen, Schyns, & Le Blanc, 2006). These questionnaire items were closed-ended to reduce variability of answers. The majority of the anchor scales ranged from 1 = “Strongly Disagree” to 7 = “Strongly Agree.” Some of the questions were reverse scored

to encourage accurate responses from participants. Table 3.1 includes a summary of the measures. The table indicates the measure, authors, number of items, source of measurement (i.e., leader or member), corresponding survey questions for each construct and the original coefficients alpha ( $\alpha$ ) (see Appendices A & B for all items used in the current study).

Table 3.1 *Measures Assessed by Leaders and Members*

<i>Measure</i>	<i>Author(s)</i>	<i># of Items</i>	<i>Source of Measurement</i>	<i>Corresponding Survey Sections</i>	<i><math>\alpha</math></i>
LMX-MDM (i.e., LMX <sub>1</sub> , LMX <sub>2</sub> , sLMX, LLX)	Liden & Maslyn, 1998	12	Member & Leader	A1, A2 A1, B1	.90(A) , .74 (L), .57 (C), .89 (PR)
PLLX	Adapted from Liden & Maslyn 1998	10	Member	B1	--
AOC	Vandenberghe et al., 2004	6	Member	B2	.89
Job Performance	Williams & Anderson, 1991	7	Leader	B2	.91
OCB	Podsakoff et al., 1990	10	Leader	B2	.82 (C), .85 (A)
Social Desirability	Ramanaiah, Schill, & Leung, 1977	7	Member & Leader	B3 A2	.80
Demographics	--	6 21	Member Leader	B4 A3	--

*Note.* See Appendix A for member survey and see Appendix B for leader survey. (LMX- A: Affect, L: Loyalty, C: Contribution, PR: Professional Respect). (OCB- C: Conscientiousness; A: Altruism).  $\alpha$  = Coefficients alpha in original studies.

#### *Member-Reported Measures*

*Leader-member exchanges and perceived leader-leader exchange.* A widely-used 12-item, 7-point LMX-MDM measure (Liden & Maslyn, 1998) was employed to assess the exchange quality between members and two leaders of the employees (LMX<sub>1</sub> and LMX<sub>2</sub>). The member also assessed his or her impression of the relationship between the two leaders (i.e., perceived leader-leader exchange (PLLX)). To assess the PLLX, the

LMX-MDM was adapted to reflect perceptions of the LLX relationship. Two items were removed from the original list because these items were difficult to assess from a third party perspective. Therefore, the PLLX measure consisted of ten of the original 12 LMX items.

The LMX-MDM measure consisted of four sub-measures: contribution, loyalty, affect, and professional respect. Each sub-measure is composed of three items. Sample items include: “I am willing to apply extra efforts beyond those normally required, to meet my immediate supervisor’s work goals” (contribution); “I am impressed with my immediate supervisor’s knowledge of his or her job” (professional respect); “I like my immediate supervisor very much as a person” (affect); “My immediate supervisor would defend me to others in the organization if I make an honest mistake” (loyalty).

Liden and Maslyn (1998) showed evidence that the 12-item LMX measure is multidimensional, and thus provides a broader conceptualization of LMX. Furthermore, Liden and Maslyn (1998) provided empirical evidence that their 12-point measure is a more reliable and valid measure than other multidimensional measures. For instance, it is compared to Scandura and Graen’s (1984) 7-point measure (LMX-7), using confirmatory factor analysis with independent samples of organizational employees (Liden & Maslyn, 1998). Each dimension of the measure – contribution, loyalty, affect, and professional respect – showed high reliability, through internal consistency and test/re-test methods (Liden & Maslyn, 1998).

Additionally, none of the dimensions were related to acquiescence. Furthermore, only contribution was related to social desirability; however, this effect was small in magnitude. Liden and Maslyn (1998) also showed that the MDM measure has concurrent

validity with the seven-item measure. Thus, the LMX-MDM measure is similar to the previously arranged seven-point measure, but also adds multidimensionality.

*Affective organizational commitment (AOC).* A six-item measure was used to assess AOC, adapted by Vandenberghe, Bentein, and Stinglhamber (2004) from Meyer et al. (1993) widely-used measure. Unlike the other three measures, this measure employs a five-point Likert scale. The reason for this is that it has been found that varying the response formats across variables often reduces respondents' motivation to use prior responses to answer future questions (Podsakoff et al., 2006). A sample item of this measure is: "this organization has a great deal of personal meaning for me."

Vandenberghe et al. (2004) were able to show, through confirmatory factor analysis, that the measure of affective commitment can be differentiated from other forms of commitment, thus showing discriminant validity of their measure of AOC (i.e., supervisory commitment and group commitment). Also, in terms of construct validity, Vandenberghe et al. (2004) hypothesized that the AOC measure developed should be highly related to things associated with the organizations (i.e., perceived organizational support (POS)). The authors did find that AOC was highly correlated to POS, and was not correlated to LMX or work group cohesion.

#### *Leader-Reported Measures*

*Leader-member exchange and leader-leader exchange.* Leaders were given the same 12-item LMX-MDM measure that the employees received, with the only difference being a slight changing of phrasing (i.e., replacing 'supervisor' with 'employee' and vice-versa). The leader reported on their relationship with the employee (sLMX) and their relationship with the other supervisor (LLX).



*Organizational citizenship behavior (OCB).* Ten items, from a widely-used 24-item measure developed by Podsakoff et al., (1990), were chosen to assess OCB. The items tap into altruism and conscientiousness. These items were rated by the immediate supervisor, again using a seven-point scale. Sample items include: “This employee is always ready to offer help to those around him or her” (altruism); “This employee often works beyond office hours even though he or she is not being asked to” (conscientiousness).

Podsakoff et al. (1990) provide evidence, for the entire 24-item measure, that there are different dimensions of OCB. They conducted a factor analysis and showed that there are five dimensions: altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. The measure has been widely-used in the OCB and LMX literature (e.g., Ansari et al., 2007b; Kidwell, Mossholder, & Bennett, 1997), which makes it an ideal choice.

*Job performance.* A seven-item measure was used to assess job performance, developed by Williams and Anderson (1991). Like the LMX and OCB measures, this measure used a seven-point scale, with responses varying from 1 = “Strongly Disagree” to 7 = “Strongly Agree.” The measure assesses how well the individual is doing the job he or she is required to do. A sample item was: “Fulfills responsibilities specified in job description.” This measure was reported by leader one (L<sub>1</sub>), with regards to the employee.

This measure was employed for two reasons. First, as discussed previously, leaders who have a high-quality relationship with an employee are likely to think highly of the employee’s job performance. Therefore, this measure assesses reciprocation of

high-quality LMX. Second, because many individuals believe that OCB and job performance are both considered performance and should be treated as one construct (see Ilies et al., 2007), the measure is also a means to show that the two constructs are related yet distinct from each other. The measure has been widely-used throughout the LMX literature (e.g., Erdogan & Bauer, 2007).

Williams and Anderson (1991) showed that this measure does support that job performance and OCB can be distinguished. The measure is composed of three aspects: in-role behaviors, OCB-intrinsic, and OCB-extrinsic. By conducting a factor analysis, Williams and Anderson (1991) were able to confirm that the measure does indeed have three dimensions. Furthermore, Williams and Anderson (1991) showed evidence, through factor loadings, that all the items were tapping into one of three distinct constructs (job performance, OCB-individual, and OCB-organizational). Therefore, construct validity was achieved when designing these measures.

#### *Demographic and Controls Variables*

*Social desirability.* Many of the questions have been shown to be free of social desirability (e.g., LMX-MDM). However, other constructs may be affected by it; as such social desirability was used as a control variable. Specifically, seven true or false items were employed to assess social desirability of members and leaders (Ramaiah et al., 1977). The measure is a condensed version of Marlowe and Crowne's (1960) widely-used 33-item measure. A sample item includes: "I have never intensely disliked anyone."

*Demographics.* Subordinates were asked to provide information about their age, gender, ethnicity, employment status, education level, organizational level, organizational tenure, tenure with supervisor, hours worked per week, employer's industry, types of

interactions with both supervisors (i.e., face-to-face or electronic), and frequency of interaction with both supervisors (Ansari, Lee, & Aafaqi, 2007b). Subordinates provided similar information on both of their supervisors as well. Supervisors were asked to provide information about themselves that subordinates were unsure of (e.g., age and education level). For variables like education level, participants were asked to check a range (e.g., High school or below).

These measures were included because past research on LMX has shown that these variables can influence LMX quality, AOC and OCB reporting (Ansari et al., 2007b; Curry, Wakefield, Price, & Mueller, 1986; Foo, Ansari, & Aafaqi, 2005; Lapierre et al., 2006; Van Dyne & LePine, 1998). Therefore, it was important to control for all aspects that may have an effect on and/or skew the results.

## 4. Results

### *Goodness of Measures*

#### *Dimensionality and Distinctiveness*

To ensure that all multidimensional scales loaded on their respective hypothesized models, Amos 16.0 software was used to run confirmatory factor analytic (CFA) models. Three measures were used to assess the fit of measurement models: the goodness-of-fit index (GFI), comparative fit index (CFI) (Bentler, 1990), and root mean square error of approximation (RMSEA) (Browne & Cudeck, 1993). All indices were expected to be around the acceptable levels (i.e., .90 for CFI, .90 for GFI, and .10 for RMSEA) (Hair, Black, Babin, Anderson, & Tatham, 2006). However, indices that were approximately 3% off of appropriate levels were accepted as it can be assumed that the appropriate fits would have been reached had a bigger sample been obtained (Hair et al., 2006).

Initially, each LMX model (LMX<sub>1</sub>, LMX<sub>2</sub>, sLMX, and LLX) was assessed individually to ensure that all were loading on the appropriate model. To accommodate a relatively small sample size, the LMX measures were not grouped together and were assessed individually. CFA was run in a similar fashion on OCB (see Table 4.2). Each model was compared to all competing models (see Tables 4.1 & 4.2). For instance, theory (see Liden & Maslyn, 1998) suggests that contribution and professional respect can be considered work-related outcomes, whereas affect and loyalty can be considered non work-related (see Model B in Tables 4.1 & 4.2), thus a two-dimensional model is possible. On the other hand, theory also suggests that contribution is the only dimension that is work-related where as the other three dimensions (affect, loyalty, and professional

respect) are not. Thus it was important to ensure that the four factor model was the best fitting model, as hypothesized in this study. The four-factor model (LMX-affect, LMX-loyalty, LMX-contribution, and LMX-professional respect) proved to be the best fit and showed acceptable fit indices for each of the four LMX measures. Conversely, the two-factor OCB model was compared to the one-factor OCB model. Analysis showed the two-factor model to have the greatest fit (see Table 4.2).

LLX and sLMX did not show all of the appropriate fit indices. Principal component analysis (PCA) was run on both and the models showed three distinct dimensions. In addition, many of the items were highly correlated with each other. However, because the four-factor model was still the best-proposed CFA model in both cases, it was employed for these measures as well.

PLLX was shortened to ten items, thus it was not feasible to use CFA to assess this model and it was treated as a unidimensional measure. Instead, exploratory factor analysis (EFA) was used to confirm the unidimensionality of the PLLX scale, because it had not been used before in the literature. EFA showed that the scale was unidimensional, as only one factor appeared, thus it can be assumed that the appropriate measure was used.

Table 4.1 CFA of All Measures Assessed by the Member

<i>Member Measures</i>	<i>Model</i>	$\chi^2$	<i>df</i>	$\Delta \chi^2$	$\Delta df$	<i>GFI</i>	<i>CFI</i>	<i>RMSEA</i>
LMX <sub>1</sub>	Model A	94.3	48	--	--	.87	.94	.10
	Model B	208.6	52	112.3	4	.80	.81	.17
	Model C	174.9	51	80.6	3	.83	.85	.15
	Model D	199.3	54	105	6	.77	.82	.16
LMX <sub>2</sub>	Model A	73.6	48	--	--	.90	.99	.07
	Model B	263.2	52	189.6	4	.80	.87	.19
	Model C	235.5	51	161.9	3	.82	.89	.18
	Model D	263.7	54	190.1	6	.70	.87	.19

*Note.* LMX<sub>1</sub> = Relationship between the employee and an immediate supervisor, rated by the member; LMX<sub>2</sub> = Relationship between the employee and another supervisor, rated by the member; Model A = Hypothesized four-factor model (affect, loyalty, contribution, and professional respect); Model B = Two-factor model (affect/loyalty and contribution/professional respect); Model C = Two-factor model (affect/loyalty/professional respect and contribution); Model D = One-factor model.

Table 4.2 CFA of all Measures Assessed by the Leader

<i>Leader Measures</i>	<i>Model</i>	$\chi^2$	<i>df</i>	$\Delta \chi^2$	$\Delta df$	<i>GFI</i>	<i>CFI</i>	<i>RMSEA</i>
sLMX	Model A	198.8	48	--	--	.79	.82	.17
	Model B	288.5	52	89.7	4	.76	.72	.20
	Model C	294.1	51	95.3	3	.75	.71	.21
	Model D	314.9	54	116.1	6	.68	.69	.21
LLX	Model A	411.6	48	--	--	.69	.84	.26
	Model B	678.4	52	266.8	4	.64	.72	.33
	Model C	672.5	51	260.9	3	.65	.72	.33
	Model D	494.5	54	82.9	6	.62	.80	.27
OCB	Model A-2	60.4	34	--	--	.91	.96	.08
	Model D-2	92.2	35	31.8	1	.85	.90	.12

*Note.* sLMX = Relationship between the employee and an immediate supervisor, rated by the leader; LLX = Relationship between the two supervisors, rated by the leader; Model A = Hypothesized four-factor model (affect, loyalty, contribution, and professional respect); Model B = Two-factor model (affect/loyalty and contribution/professional respect); Model C = Two-factor model (affect/loyalty/professional respect and contribution); Model D = Twelve-item unidimensional model; Model A-2 = Two-factor model (altruism and conscientiousness); Model D-2 = One-factor model (10 items).

### *Evidence against Common Method Bias*

The next stage in the analysis was to ensure that common method bias was not an issue in the current study. For this, PCA was used to show that more than one construct was being assessed by the employees and supervisors, respectively. That is, all variables assessed by the employee (LMX<sub>1</sub>, LMX<sub>2</sub>, PLLX, and AOC) were assessed in one analysis and all variables assessed by the supervisors (LLX, sLMX, OCB -

conscientiousness, OCB – altruism, and job performance) were assessed in another. As expected, no variable accounted for more than 50% of the explained variance.

With regards to the employee, PCA showed two factors explaining 73.13% of the variance. Moreover, AOC strongly correlated with both factors, which indicates that a dependent variable is present. A forced PCA model was used, which showed three factors emerging. The three factors were LMX<sub>1</sub>, LMX<sub>2</sub>/PLLX, and AOC. This indicates that employees perceived their relationship with the other supervisor and the relationship between the two supervisors very similarly.

All constructs reported by the leader showed two factors explaining 75.46% of the variance. As expected, job performance, OCB-conscientiousness, and OCB-altruism highly correlating with both factors. This, again, suggests that a dependent variable is present. PCA was run again with a forced three factor model to further define the factors. The three factors were job performance and OCB, sLMX, and LLX. In addition, OCB-conscientiousness correlated highly with all factors.

A CFA was run again on all member-rated constructs and leader-rated constructs, respectively, to show that it was not feasible to group all the constructs into one group (i.e., unidimensional), thus indicating that members and leaders were reporting on different constructs. Although some of the indices were not over the cut-off points, the multiple construct models was compared to unidimensional models, and it was evident that a multiple construct model was the best fit for both (see Table 4.3).

Table 4.3 CFA Check for Common Method Bias

	<i>Model</i>	$\chi^2$	<i>df</i>	$\Delta \chi^2$	$\Delta df$	<i>GFI</i>	<i>CFI</i>	<i>RMSEA</i>
Member Reported Measures	Model A	121.6	32	--	--	.84	.90	.16
	Model B	336.6	35	215.0	3	.60	.65	.28
Leader Reported Measures	Model A	124.9	40	--	--	.82	.92	.14
	Model B	678.0	44	553.1	4	.51	.42	.36

*Note.* Model A = Multiple construct model; Model B = One-factor model

### *Hypothesis Testing*

Means, standard deviations, inter-correlations, and coefficients alpha are provided in Table 4.4. Means of predictors, moderators, and criterion variables are all relatively high, as all were over the median of the scale. However, standard deviations are appropriate. Supervisors and subordinates were generous with their ratings, which is common in the LMX literature (Gerstner & Day, 1997). All alphas are over the acceptable .70 level, the only exception being contribution of the employee, rated by the supervisor (sLMX) at .54. However, it should be noted that Liden and Maslyn (1998) also found a comparable alpha, for contribution (.57). Additionally, PCA showed all items were accounting for at least 5% of the variance, and thus no variables were removed. It is also important to note that the correlation between LMX<sub>1</sub> (reported by the member) and sLMX (reported by the leader) correlate at .21, indicating that the supervisors and employees exhibit differential relationship perceptions. This conclusion corroborates the findings of Gerstner and Day's (1997) meta-analysis. Additionally, the inter-correlations of the dimensions of each relationship showed some interesting findings. For instance, the dimension correlations of LMX<sub>1</sub> and sLMX are very similar (0.64 and 0.63, respectively). On the other hand, the dimension correlations of LMX<sub>2</sub> and LLX were also similar to each other (0.80 and 0.87, respectively). This suggests that leaders and members could easily distinguish between the LMX dimensions when rating



each other. In the cases of LMX<sub>2</sub> and LLX, the leaders and members had difficulty applying dimensionality to their relationships, the relationships were more generalized. On another note, we also computed the relationship between social desirability and all study variables, and none of the correlations were significant ( $p > .05$ ). This fact may be considered evidence against social desirability effect.

Table 4.4 Means, Standard Deviations, Correlations, and Alphas of Study Variables

Factor	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Predictor Variables (a)																							
1. LMX <sub>1</sub> Affect	6.24	.88	(.85)																				
2. LMX <sub>1</sub> Loyalty	5.84	1.05	.58**	(.81)																			
3. LMX <sub>1</sub> Contribution	5.93	.95	.62**	.61**	(.73)																		
4. LMX <sub>1</sub> Respect	6.30	.91	.62**	.72**	.66**	(.87)																	
Moderator Variables (a)																							
5. LMX <sub>2</sub> Affect	5.45	1.56	.12	.17	.22*	.19	(.95)																
6. LMX <sub>2</sub> Loyalty	5.34	1.47	.09	.30**	.16	.21*	.84**	(.90)															
7. LMX <sub>2</sub> Contribution	5.51	1.37	.08	.18	.37**	.18	.81**	.73**	(.85)														
8. LMX <sub>2</sub> Respect	5.72	1.44	.05	.13	.08	.15	.86**	.80**	.78**	(.96)													
9. PLLX	5.56	1.28	.17	.35**	.22*	.33**	.80**	.74**	.67**	.77**	(.98)												
Predictor Variables (b)																							
10. sLMX Affect	5.88	.95	.32**	.17	.33**	.16	.07	-.06	.11	-.00	-.05	(.89)											
11. sLMX Loyalty	5.66	1.02	.31**	.21*	.34**	.23*	-.13	-.18	-.07	-.21*	.21*	.63**	(.76)										
12. sLMX Contribution	6.05	.69	.15	.21*	.30**	.24*	.02	-.07	.50	-.05	-.03	.60**	.75**	(.54)									
13. sLMX Respect	6.00	.90	.24*	.24*	.24*	.20*	-.09	-.11	-.05	-.13	-.10	.56**	.63**	.62**	(.85)								
Moderator Variables (b)																							
14. LLX Affect	5.66	1.48	-.05	.09	-.03	.18	.50**	.44**	.43**	.52**	.62**	-.15	-.19*	-.24*	-.23*	(.94)							
15. LLX Loyalty	6.06	1.27	-.04	.07	-.06	.09	.36**	.41**	.36**	.42**	.50**	-.20	-.14	-.18	-.14	.84**	(.87)						
16. LLX Contribution	6.13	1.11	-.03	.04	-.03	.06	.25**	.32**	.26**	.34**	.37**	-.10	-.08	-.20*	-.11	.80**	.90**	(.88)					
17. LLX Respect	6.03	1.45	.02	.14	-.04	.19*	.39**	.43**	.36**	.50**	.58**	-.14	-.22*	-.30**	-.17	.91**	.90**	.87**	(.96)				
Criterion Variable (a)																							
18. AOC	3.62	.78	.35**	.31**	.42**	.15	.39**	.32**	.37**	.26**	.25**	.23*	-.01	.13	.03	-.14	-.17	-.17	-.14	(.83)			
Criterion Variables (b)																							
19. OCB-C	5.69	.95	.11	.18	.24*	.15	.21*	0.1	.27**	.16	.15	.52**	.53**	.63**	.63**	-.06	-.10	-.10	-.07	.22*	(.81)		
20. OCB-A	5.70	.95	.13	.26**	.20*	.19*	.07	-.01	.05	.04	.06	.54**	.54**	.60**	.57**	-.10	-.15	-.17	-.09	.14	.70**	(.89)	
21. Job Performance	6.10	.74	.18	.20*	.20*	.16	.08	.04	.05	.05	.06	.56**	.54**	.60**	.70**	-.12	-.10	-.10	-.09	.07	.71**	.71**	(.87)

Note. N = 111 dyads; \* =  $p < .05$ ; \*\* =  $p < .01$ ; (a) = Member reported measure; (b) = Leader reported measure; ( ) = Coefficients Alpha; AOC = Affective Organizational Commitment; OCB-C = Organizational Citizenship Behavior-Conscientiousness; OCB-A = Organizational Citizenship Behavior-Altruism.

Hierarchical multiple regressions were used to test all hypotheses. Each hypothesis was tested twice, once from the perspective of the member (LMX<sub>1</sub>) and once from the perspective of the leader (sLMX). All predictor and moderator variables were standardized (i.e., z-scored), to create a clean normally distributed curve. Leadership structure was used as a control variable to assess the first six hypotheses (Hierarchical = 0 and Distributed = 1). Also, as expected, OCB and job performance were highly correlated. As such job performance was controlled for when analyzing OCB and vice versa. Before testing the hypothesized relationships, I examined the relationship of salient demographic variables presumed to be related to each employee outcome. For instance, demographic variables such as gender, age, organizational tenure, supervisor tenure, and organizational sector have been correlated with attitudinal outcomes (i.e., AOC) in previous research (Meyer et al., 2001). Thus all these variables were taken into account when assessing AOC; however very few of these variables had a significant effect on the data (see Tables 4.4 - 4.12). It is also important to note that if more than one LMX dimension had an effect on any variable, the higher beta coefficient determined the dimension that had the greatest effect.

Hypothesis 1 (H1) suggested that LMX is positively related to AOC. The analysis revealed a significant positive relationship between LMX and AOC (LMX<sub>1</sub>:  $R^2 = .31, p < .001$ ; sLMX:  $R^2 = .16, p < .05$ ). H1 also stated that LMX-affect would have the greatest effect on AOC. However, this aspect was only confirmed from the leaders' perspective ( $\beta = .40, p < .01$ ). Contribution had the greatest effect on AOC from the members' perspective ( $\beta = .49, p < .001$ ). Therefore, H1 was partially supported (see Tables 4.5 - 4.10).

Hypothesis 2 (H2) suggested that LMX is positively related to job performance. H2 was supported, but only from the perspective of the leader ( $R^2 = .69, p < .01$ ). The members' rating of LMX was not significantly related to job performance. Furthermore, H2 stated that LMX-contribution would have the greatest effect on job performance; however, only LMX-professional respect was significantly related to job performance ( $\beta = .30, p < .01$ ). Thus H2 was not supported (see Tables 4.5 - 4.10).

Hypothesis 3 (H3) suggested that LMX is positively related to OCB (conscientiousness and altruism). LMX was significantly related to OCB (Conscientiousness:  $R^2 = .59, p < .01$ ; Altruism:  $R^2 = .63, p < .01$ ). In addition, contribution did have the greatest effect on OCB, but only from the perspective of the leader (Conscientiousness:  $\beta = .25, p < .05$ ; Altruism:  $\beta = .21, p < .05$ ). LMX was not significantly related to OCB, when reported by the member. Thus H3 received partial support (see Tables 4.5 - 4.10).

Before discussing the moderating hypotheses, it should be noted that, for all significant interactions, the predictor and moderators were split up into three categories (low, medium, and high-quality relationships). Low-quality relationships were between one and five standard deviations below the mean. High-quality relationships were between one and five standard deviations above the mean. Medium-quality relationships represented everything between low and high-quality relationships. Furthermore, high-quality relationships are extreme in most cases, thus not all interactions had examples of high-quality relationships, as defined by the current study (see Figures 4.1 – 4.6b). In addition, only coinciding dimensions were analyzed for their interactive effects (e.g., LMX-contribution and LLX-contribution).

Hypothesis 4 (H4 – a, b, and c) suggested that the relationship between LMX and employee outcomes is moderated by the relationship the member has with a second supervisor (LMX<sub>2</sub>). These hypotheses received little support as LMX<sub>2</sub> only had a significant influence on the LMX-AOC relationship. Furthermore, this was true only when LMX was rated by the leader ( $R^2 = .37, p < .05$ ). As expected, having a relatively high-quality relationship with another supervisor was beneficial for predicting high AOC if there was no high-quality relationship between the member and his or her immediate supervisor. However, the effect disappeared if the member had a high-quality relationship with their immediate supervisor (sLMX Affect:  $\beta = -.36, p < .05$ ) (see Figure 4.1). It is important to note that in regards to OCB, LMX<sub>2</sub> proved to be an additional predictor rather than a moderator (see Tables 4.5 & 4.8). Nevertheless, H4a received marginal support, whereas H4b and H4c were not supported.

Hypothesis 5 (H5 – a, b, and c) suggested that the relationship between LMX and employee outcomes is moderated by the relationship the supervisors have with each other, as perceived by the leader (LLX). When assessing LMX from the leader's perspective (sLMX), LLX significantly influenced OCB (Conscientiousness:  $R^2 = .67, p < .05$ ; Altruism:  $R^2 = .70, p < .05$ ) but did not influence AOC or job performance. Furthermore, when analyzing OCB-Conscientiousness, only one LMX dimension was moderated, that being professional respect ( $\beta = -.25, p < .05$ ). The interaction reveals that situations of low-quality professional respect in both the predictor and moderator were the most predictive of high OCB-conscientiousness, and the interaction disappears as the supervisor has more professional respect for the employee, which was not expected (see Figure 4.3).

The moderation of OCB-Altruism, however, influenced a couple of LMX dimensions (Loyalty:  $\beta = -.41, p < .05$ ; Contribution:  $\beta = .24, p < .05$ ). Interactions show that low LLX loyalty was predictive of high OCB-altruism in all cases, which is contrary to what was expected (see Figure 4.4a). On the other hand, both LLX-contribution (third stage of the analysis) and the interaction between sLMX-contribution and LLX-contribution (fourth stage of the analysis) were significant, which suggests that this variable was a quasi-moderator. Although, Figure 4.4b shows no visible interaction, the significant beta coefficient confirms there is a significant interaction between LLX-contribution and LMX-contribution (see Table 4. 9).

Conversely, from the member's perspective (LMX<sub>1</sub>), LLX influenced OCB-Conscientiousness ( $R^2 = .58, p < .001$ ) and only the dimension of contribution ( $\beta = .28, p < .05$ ). The interaction suggests that instances of low-quality for the predictor and moderator were the most predictive of high conscientiousness and, again, the impact disappears if the member has a very high-quality relationship with his or her immediate supervisor (see Figure 4.2). Thus H5c was partially supported, whereas H5a and H5b were not supported (see Table 4.6).

Hypothesis 6 (H6 – a, b, and c) suggested that the relationship between LMX and employee outcomes is moderated by how the member perceives the relationship between the two leaders (PLLX). When assessing LMX from the leader's perspective, PLLX only significantly influenced OCB-Altruism ( $R^2 = .67, p < .05$ ). Furthermore, with respect to altruism, PLLX influenced a couple of dimensions of LMX (Affect:  $\beta = .33, p < .01$ ; Contribution:  $\beta = -.26, p < .05$ ) (see Table 4.10). Interactions for both of these

dimensions show altruism increases as both LMX and PLLX increase, as expected (see Figures 4.6a & 4.6b).

Conversely, from the member's perspective, PLLX only influenced job performance ( $R^2 = .69, p < .01$ ). A couple of LMX dimensions were affected (Affect:  $\beta = .35, p < .01$ ; Loyalty:  $\beta = -.25, p < .05$ ). The relationship between LMX-affect and PLLX shows that if both cases are low, the employee's job performance is at the highest quality, and this disappears if the employee has a high-quality relationship with his or her immediate supervisor. This difference was marginal, however. With respect to loyalty, the analysis shows that when both are of high-quality, performance is at the highest level, as expected. Thus H6b was partially supported, H6c was marginally supported, and H6a was not supported (see Table 4.7).

Hypothesis 7 (H7 – a, b, and c) suggested that the leadership structure type would moderate the relationship between LMX and work outcomes. The analysis showed that H7 received no support as leadership type had no influence on any of the criterion variables when considered a moderator (See Tables 4.11 & 4.12). However, it is important to note that leadership structure did prove to be an additional predictor with a few criterion variables (i.e., OCB-altruism and AOC).

Table 4.5  $LMX_1$  and Criterion Variables: The Moderating Impact of  $LMX_2$

Dependent Variables →	AOC				OCB - Conscientiousness				OCB - Altruism				Job Performance			
	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β
<u>Control Variables</u>																
Leadership Type	.22*				.01				-.23**				.14*			
Supervisor Tenure	-.04				-.03				.09*				.08			
Leader A Age	--				--				-.18				--			
Memb Int Leader A	--				--				.18**				--			
Memb Int Leader B	--				--				--				-.20*			
Job Performance	--				.72***				.67***				--			
OCB Conscientiousness	--				--				--				.44***			
OCB Altruism	--				--				--				.41***			
<u>Predictors</u>																
$LMX_1$ Affect (A)		.13								-.06					.10	
$LMX_1$ Loyalty (B)		.17								.10					-.02	
$LMX_1$ Contribution (C)		.49***								.01					-.04	
$LMX_1$ Professional Respect (D)		-.33*								.04					-.03	
<u>Moderators</u>																
$LMX_2$ Affect (E)			.36					.22				.21				-.06
$LMX_2$ Loyalty (F)			-.04					-.32*				-.22				.21
$LMX_2$ Contribution (G)			.05					.45**				.06				-.24
$LMX_2$ Professional Respect (H)			-.15					-.17				-.05				.12
<u>Interactions</u>																
A X E				-.22				.19					-.13			.06
B X E				-.07				.18					-.11			-.26*
C X E				-.19				-.23					.07			.04
D X E				.35				-.05					.22			.09
$R^2$	.06*	.31***	.36	.40	.51***	.53	.60**	.62	.58***	.59	.60	.61	.63***	.64	.66	.68
$\Delta R^2$	--	.25	.05	.04	--	.02	.07	.02	--	.01	.01	.01	--	.01	.02	.02
$\Delta F$	3.20	9.46	1.7	1.70	36.37	1.30	4.14	1.37	28.24	.63	.69	.69	36.00	.33	1.35	1.50

Note. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; -- = Not applicable to the criterion variable in question. Leadership structure was coded as a dummy variable where "0" = hierarchical leadership structures and "1" = distributed leadership structures. Supervisor tenure was not significant at any stage; however betas were reported because previous studies have found significant correlations.



Table 4.6 *sLMX and Criterion Variables: The Moderating Impact of LMX<sub>2</sub>*

Dependent Variables →	Affective Organizational Commitment				OCB - Conscientiousness				OCB - Altruism				Job Performance				
	Variables Entered ↓	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β
<u>Control Variables</u>																	
Leadership Type	.22*				.01					-.23**				.14*			
Supervisor Tenure	-.04				-.03					.09*				.08			
Leader A Age	--				--					-.18*				--			
Memb Int Leader A	--				--					.18**				--			
Memb Int Leader B	--				--					--				-.20*			
Job Performance	--				.72***					.67***				--			
OCB Conscientiousness	--				--					--				.44***			
OCB Altruism	--				--					--				.41***			
<u>Predictors</u>																	
sLMX Affect (A)		.40**				.06				.05				.11			
sLMX Loyalty (B)		-.19				.01				.04				-.09			
sLMX Contribution (C)		.16				.25*				.21*				.02			
sLMX Professional Respect (D)		-.14				.16				.09				.30**			
<u>Moderators</u>																	
LMX <sub>2</sub> Affect (E)			.33				.11				.07					.00	
LMX <sub>2</sub> Loyalty (F)			.11				-.20				-.03					.14	
LMX <sub>2</sub> Contribution (G)			.26				.33**				-.01					-.17	
LMX <sub>2</sub> Professional Respect (H)			-.42*				-.01				.04					.12	
<u>Interactions</u>																	
A X E				-.36*				-.02					.01				.08
B X F				-.00				.19					.02				-.25*
C X G				.01				-.19*					-.03				.00
D X H				.04				.05					-.09				.11
R <sup>2</sup>	.06*	.16*	.28**	.37*	.51***	.59**	.66**	.69	.58***	.63**	.63	.64	.63***	.69**	.71	.72	
Δ R <sup>2</sup>	--	.11	.12	.09	--	.08	.07	.03	--	.05	.01	.01	--	.06	.02	.02	
Δ F	3.20	3.33	4.00	3.30	36.37	5.10	5.00	2.30	28.24	3.65	0.30	0.43	36.00	4.40	1.51	1.40	

Note. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; -- = Not applicable to the criterion variable in question. Leadership structure was coded as a dummy variable where "0" = hierarchical leadership structures and "1" = distributed leadership structures. Supervisor tenure was not significant at any stage; however betas were reported because previous studies have found significant correlations.

Table 4.7 *LMX<sub>1</sub> and Criterion Variables: The Moderating Impact of LLX*

Dependent Variables Entered	Affective Organizational Commitment				OCB - Conscientiousness				OCB - Altruism				Job Performance			
	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$
<u>Control Variables</u>																
Leadership Type	.22*				.01				-.23**				.14*			
Supervisor Tenure	-.04				-.03				.09*				.08			
Leader A Age	--				--				-.18				--			
Memb Int Leader A	--				--				.18**				--			
Memb Int Leader B	--				--				--				-.20*			
Job Performance	--				.72***				.67***				--			
OCB Conscientiousness	--				--				--				.44***			
OCB Altruism	--				--				--				.41***			
<u>Predictors</u>																
LMXa Affect (A)		.13				-.15				-.06				.10		
LMXa Loyalty (B)		.17				.01				.10				-.02		
LMXa Contribution (C)		.49***				.20				.01				-.04		
LMXa Professional Respect (D)		-.33*				.00				.04				-.03		
<u>Moderators</u>																
LLX Affect (E)			.04				.07				-.09				-.06	
LLX Loyalty (F)			-.29				-.15				-.03			.10		
LLX Contribution (G)			.03				-.13				-.27			.07		
LLX Professional Respect (H)			.01				.18				.27			-.07		
<u>Interactions</u>																
A X E				.32*				.08				.10				.03
B X F				-.24				-.16				.05				.02
C X G				-.08				.28*				-.03				-.10
D X H				-.07				-.09				.03				-.00
R <sup>2</sup>	.06*	.31***	.35	.40	.51***	.53	.54	.59*	.58***	.59	.61	.62	.63***	.64	.64	.65
$\Delta R^2$	--	.25	.04	.05	--	.02	.01	.05	--	.01	.02	.01	--	.01	.01	.00
$\Delta F$	3.20	9.46	1.65	1.80	36.37	1.3	.67	2.80	28.24	.63	1.41	.74	36.00	.33	.32	.10

Note. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; -- = Not applicable to the criterion variable in question. Leadership structure was coded as a dummy variable where “0” = hierarchical leadership structures and “1” = distributed leadership structures. Supervisor tenure was not significant at any stage; however betas were reported because previous studies have found significant correlations.

Table 4.8 *sLMX and Criterion Variables: The Moderating Impact of LLX*

Dependent Variables Variables Entered Step	Affective Organizational Commitment				OCB - Conscientiousness				OCB - Altruism				Job Performance			
	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$
<u>Control Variables</u>																
Leadership Type	.22*				.01				-.23**				.14*			
Supervisor Tenure	-.04				-.03				.09*				.08			
Leader A Age	--				--				-.18				--			
Memb Int Leader A	--				--				.18**				--			
Memb Int Leader B	--				--				--				-.20*			
Job Performance	--				.72***				.67***				--			
OCB Conscientiousness	--				--				--				.44***			
OCB Altruism	--				--				--				.41***			
<u>Predictors</u>																
sLMX Affect (A)		.40**				.06				.05				.11		
sLMX Loyalty (B)		-.19				.01				.04				-.09		
sLMX Contribution (C)		.16				.25*				.21*				.02		
sLMX Professional Respect (D)		-.14				.16				.09				.30**		
<u>Moderators</u>																
LLX Affect (E)				-.08				.15				-.07				.07
LLX Loyalty (F)				-.19				-.32				-.19				.12
LLX Contribution (G)				-.03				.15				-.34*				-.03
LLX Professional Respect (H)				.11				.38				.54*				-.09
<u>Interactions</u>																
A X E				.01				.05					.24			-.06
B X F				-.01				.18					-.41*			.22
C X G				.27				.24					.24*			-.22
D X H				-.38*				-.25*					-.09			.11
R <sup>2</sup>	.06*	.16*	.20	.26	.51***	.59**	.63	.67*	.58***	.63**	.67*	.70*	.63***	.69**	.69	.71
$\Delta R^2$	--	.11	.03	.06	--	.08	.04	.04	--	.05	.04	.03	--	.06	.01	.02
$\Delta F$	3.20	3.33	1.00	.11	36.37	5.10	2.45	2.80	28.24	3.65	2.94	2.50	36.00	4.40	.39	1.51

Note. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; -- = Not applicable to the criterion variable in question. Leadership structure was coded as a dummy variable where "0" = hierarchical leadership structures and "1" = distributed leadership structures. Supervisor tenure was not significant at any stage; however betas were reported because previous studies have found significant correlations.

Table 4.9  $LMX_1$  and Criterion Variables: The Moderating Impact of PLLX

Dependent Variables	Affective Organizational Commitment				OCB - Conscientiousness				OCB - Altruism				Job Performance			
	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$
<u>Control Variables</u>																
Leadership Type	.22*				.01				-.23**				.14*			
Supervisor Tenure	-.04				-.03				.09*				.08			
Leader A Age	--				--				-.18				--			
Memb Int Leader A	--				--				.18**				--			
Memb Int Leader B	--				--				--				-.20*			
Job Performance	--				.72***				.67***				--			
OCB Conscientiousness	--				--				--				.44***			
OCB Altruism	--				--				--				.41***			
<u>Predictors</u>																
$LMX_1$ Affect (A)		.13												.10		
$LMX_1$ Loyalty (B)		.17												-.02		
$LMX_1$ Contribution (C)		.49***												-.04		
$LMX_1$ Professional Respect (D)		-.33*												-.03		
<u>Moderator</u>																
PLLX (E)			.08				.09					-.02			.07	
<u>Interactions</u>																
A X E				-.19				.03					-.10			.35**
B X E				-.09				.08					.10			-.25*
C X E				-.17				-.01					.10			-.17
D X E				.50**				.08					.10			-.01
$R^2$	.06*	.31***	.31	.37	.51***	.53	.54	.55	.58***	.59	.59	.60	.63***	.64	.64	.69**
$\Delta R^2$	--	.25	.00	.06	--	.02	.01	.01	--	.01	.00	.01	--	.01	.00	.05
$\Delta F$	3.20	9.46	.66	2.30	36.37	1.30	1.33	.74	28.24	.63	.09	.70	36.00	.33	.75	3.60

Note. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; -- = Not applicable to the criterion variable in question. Leadership structure was coded as a dummy variable where "0" = hierarchical leadership structures and "1" = distributed leadership structures. Supervisor tenure was not significant at any stage; however betas were reported because previous studies have found significant correlations.

Table 4.10 *sLMX and Criterion Variables: The Moderating Impact of PLLX*

Dependent Variables →	Affective Organizational Commitment				OCB - Conscientiousness				OCB - Altruism				Job Performance				
	Variables Entered ↓	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β
<u>Control Variables</u>																	
Leadership Type	.22*				.01					-.23**				.14*			
Supervisor Tenure	-.04				-.03					.09*				.08			
Leader A Age	--				--					-.18				--			
Memb Int Leader A	--				--					.18**				--			
Memb Int Leader B	--				--					--				-.20*			
Job Performance	--				.72***					.67***				--			
OCB Conscientiousness	--				--					--				.44***			
OCB Altruism	--				--					--				.41***			
<u>Predictors</u>																	
sLMX Affect (A)		.40**				.06				.05					.11		
sLMX Loyalty (B)		-.19				.01				.04					-.09		
sLMX Contribution (C)		.16				.25*				.21*				.02			
sLMX Professional Respect (D)		-.14				.16				.09				.30**			
<u>Moderator</u>																	
PLLX (E)			.16				.16*				.05				.09		
<u>Interactions</u>																	
A X E				-.22				-.10				.33**					.14
B X E				-.25				.17				-.17					-.05
C X E				.16				-.07				-.26*					-.11
D X E				.07				.10				.11					-.03
R <sup>2</sup>	.06*	.16*	.19	.25	.51***	.59**	.61*	.63	.58***	.63**	.63	.67*	.63***	.69**	.69	.70	
Δ R <sup>2</sup>	--	.11	.02	.06	--	.08	.02	.02	--	.05	.00	.04	--	.06	.01	.01	
Δ F	3.20	3.33	2.82	2.03	36.37	5.10	5.35	1.20	28.24	3.65	0.55	2.90	36.00	4.40	1.87	.80	

Note. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; -- = Not applicable to the criterion variable in question. Leadership structure was coded as a dummy variable where “0” = hierarchical leadership structures and “1” = distributed leadership structures. Supervisor tenure was not significant at any stage; however betas were reported because previous studies have found significant correlations.

Table 4.11  $LMX_1$  and Criterion Variables: The Moderating Impact of Leadership Type

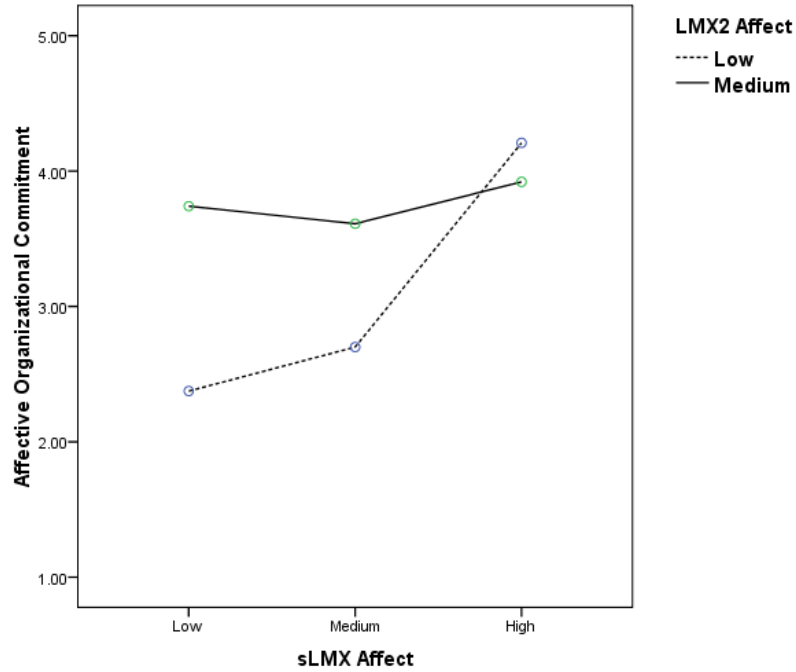
Dependent Variables Variables Entered Step	Affective Organizational Commitment				OCB - Conscientiousness				OCB - Altruism				Job Performance			
	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$
<u>Control Variables</u>																
Supervisor Tenure	-.11				-.03				.11				.04			
Memb Int Leader A	--				--				.16*				--			
Memb Int Leader B	--				-.72***				--				-.14*			
Job Performance	--				--				.67***				--			
OCB Conscientiousness	--				--				--				.46***			
OCB Altruism	--				--				--				.39***			
<u>Predictors</u>																
$LMX_1$ Affect (A)		.17				-.14				-.11				.13		
$LMX_1$ Loyalty (B)		.19				.01				.08				.02		
$LMX_1$ Contribution (C)		.45***				.19				.06				-.08		
$LMX_1$ Professional Respect (D)		-.33				.00				.05				-.03		
<u>Moderator</u>																
Leadership Type (E)			.24**				.03				-.23**				.09	
<u>Interactions</u>																
A X E				.01				.03					-.09			.16
B X E				-.11				.03					.17			-.20
C X E				-.06				-.03					-.03			-.01
D X E				-.04				.10					.03			.02
$R^2$	.01	.26***	.31**	.34	.51***	.53	.53	.54	.54***	.55	.59**	.60	.62***	.63	.64	.66
$\Delta R^2$	--	.25	.05	.03	--	.02	.00	.00	--	.01	.03	.01	--	.01	.01	.02
$\Delta F$	1.21	8.70	7.64	.92	55.06	1.28	.17	.23	31.00	.74	7.94	.84	42.14	.69	1.80	1.50

Note. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; -- = Not applicable to the criterion variable in question. Leadership structure was coded as a dummy variable where “0” = hierarchical leadership structures and “1” = distributed leadership structures. Supervisor tenure was not significant at any stage; however betas were reported because previous studies have found significant correlations.

Table 4.12 *sLMX and Criterion Variables: The Moderating Impact of Leadership Type*

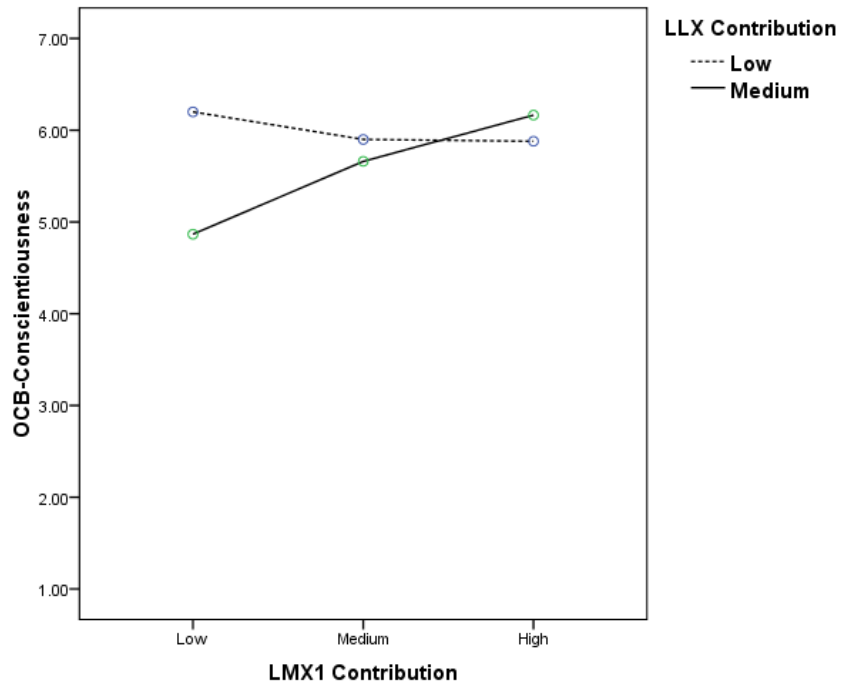
Dependent Variables →	Affective Organizational Commitment				OCB - Conscientiousness				OCB - Altruism				Job Performance				
	Variables Entered ↓	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β	Step 1 β	Step 2 β	Step 3 β	Step 4 β
<u>Control Variables</u>																	
Supervisor Tenure	-.11				-.03					.11				.04			
Memb Int Leader A	--				--					.16*				--			
Memb Int Leader B	--				--					--				-.14*			
Job Performance	--				.72***					.67***				--			
OCB Conscientiousness	--				--					--				.46***			
OCB Altruism	--				--					--				.39***			
<u>Predictors</u>																	
sLMX Affect (A)		.39**				.06				.09				.10			
sLMX Loyalty (B)		-.30				.00				.10				-.09			
sLMX Contribution (C)		.21				.25*				.19				.02			
sLMX Professional Respect (D)		-.10				.16				.01				.32***			
<u>Moderator</u>																	
Leadership Type (E)			.20				.01					-.21*				.07	
<u>Interactions</u>																	
A X E				-.25									-.07				.07
B X E				.14					-.15				.01				.05
C X E				-.06					-.05				-.04				-.01
D X E				.20					.05				-.05				-.02
R <sup>2</sup>	.01	.13**	.16	.22	.51***	.59**	.59	.61	.54***	.61**	.63*	.64	.62***	.68**	.69	.69	
ΔR <sup>2</sup>	--	.12	.03	.05	--	.08	.00	.02	--	.07	.03	.01	--	.06	.00	.01	
ΔF	1.21	3.66	3.86	1.71	55.06	5.13	.03	1.10	31.00	4.13	6.74	.88	42.14	5.00	1.02	.53	

Note. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; -- = Not applicable to the criterion variable in question. Leadership structure was coded as a dummy variable where “0” = hierarchical leadership structures and “1” = distributed leadership structures. Supervisor tenure was not significant at any stage; however betas were reported because previous studies have found significant correlations.



*Note.* Cases of LMX<sub>2</sub> Affect (high) did not occur and thus are not represented.

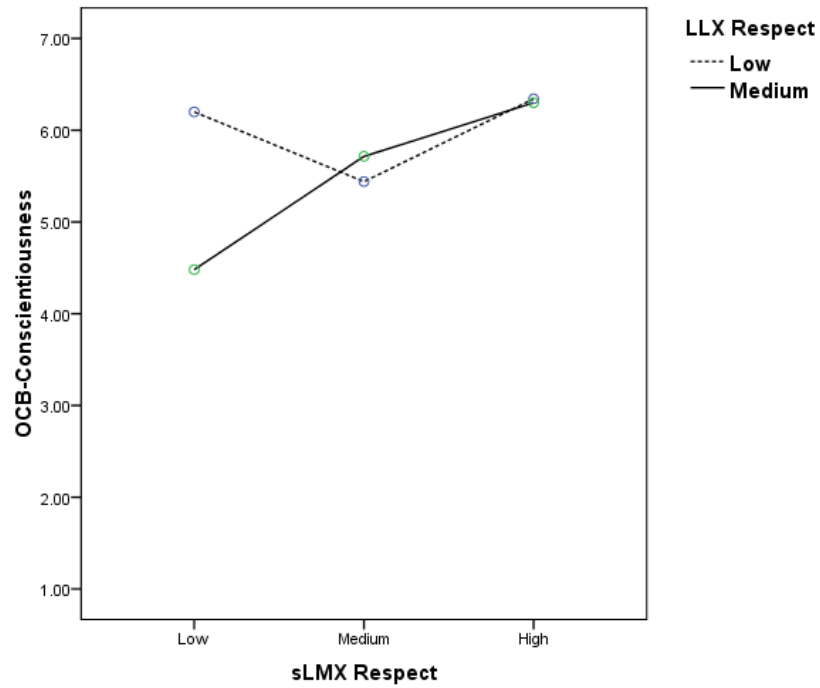
*Figure 4.1.* Interaction between sLMX affect and LMX<sub>2</sub> affect on AOC.



*Note.* Cases of LLX Contribution (high) did not occur and thus are not represented.

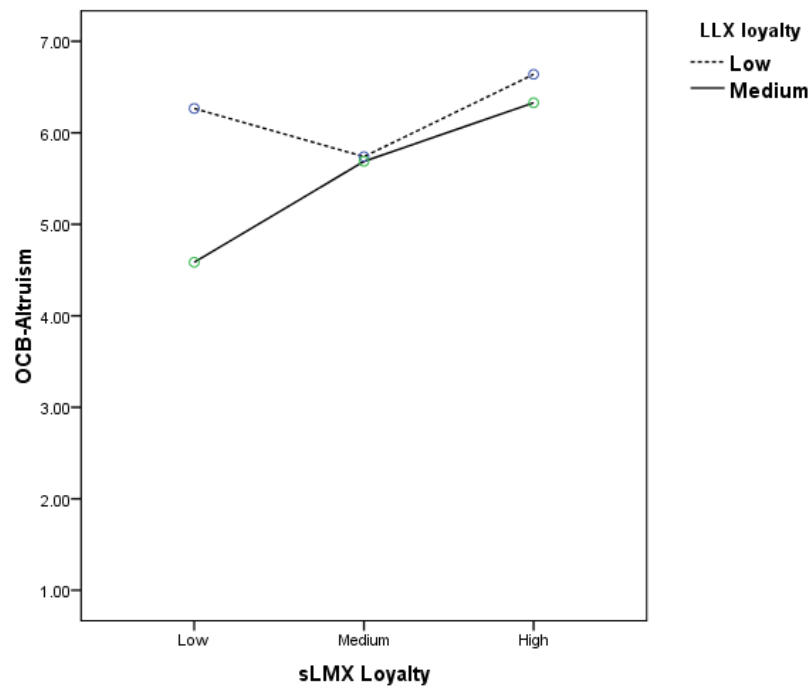
*Figure 4.2.* Interaction between LMX<sub>1</sub> contribution and LLX contribution on OCB-conscientiousness.





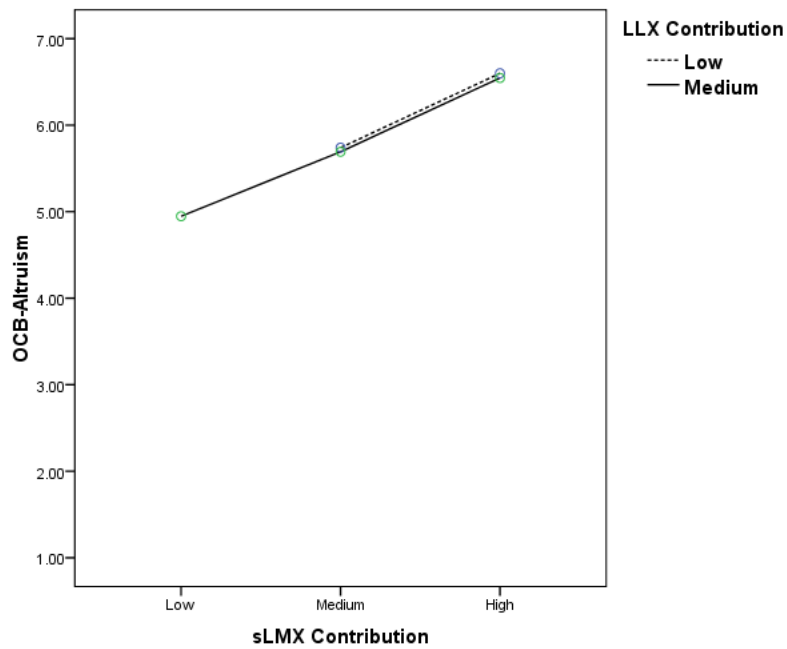
*Note.* Cases of LLX Professional respect (high) did not occur and thus are not represented.

*Figure 4.3.* Interaction between sLMX professional respect and LLX professional respect on OCB-Conscientiousness.



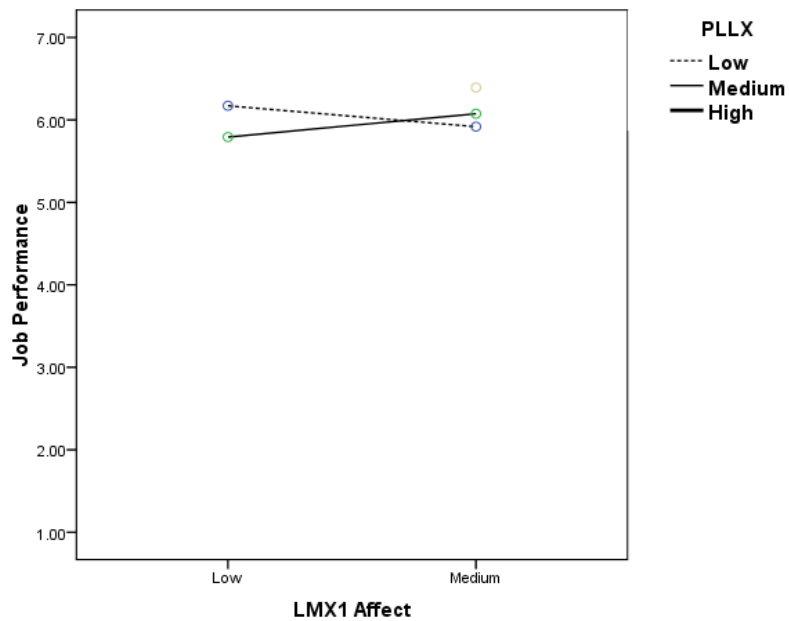
*Note.* Cases of LLX Loyalty (high) did not occur and thus are not represented.

*Figure 4.4a.* Interaction between sLMX loyalty and LLX loyalty on OCB-Altruism.



*Note.* Cases of LLX Contribution (high) did not occur and thus are not represented.

*Figure 4.4b.* Interaction between sLMX contribution and LLX contribution on OCB-Altruism.



*Note.* Cases of LMX<sub>1</sub> Affect (high) did not occur and thus are not represented.

*Figure 4.5a.* Interaction between LMX<sub>1</sub> affect and PLLX on job performance.

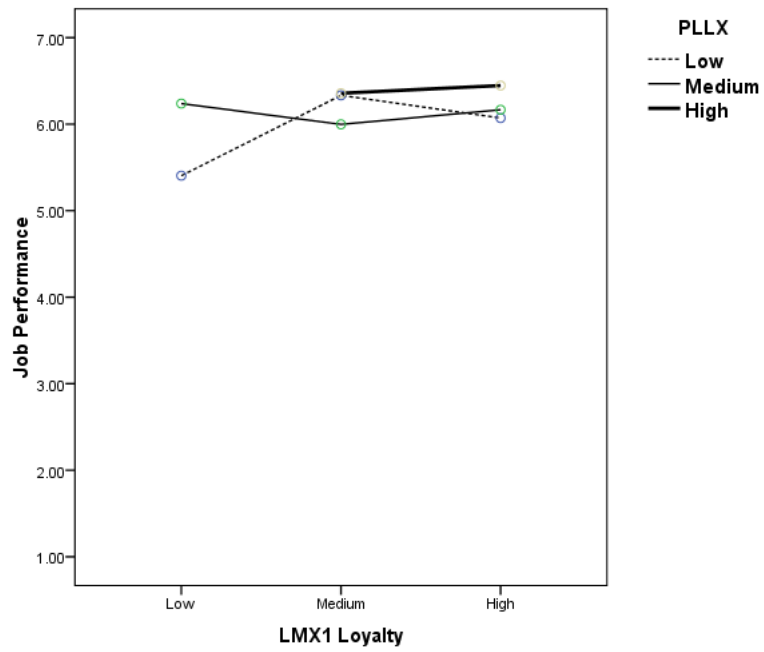


Figure 4.5b. Interaction between LMX<sub>1</sub> loyalty and PLLX on job performance.

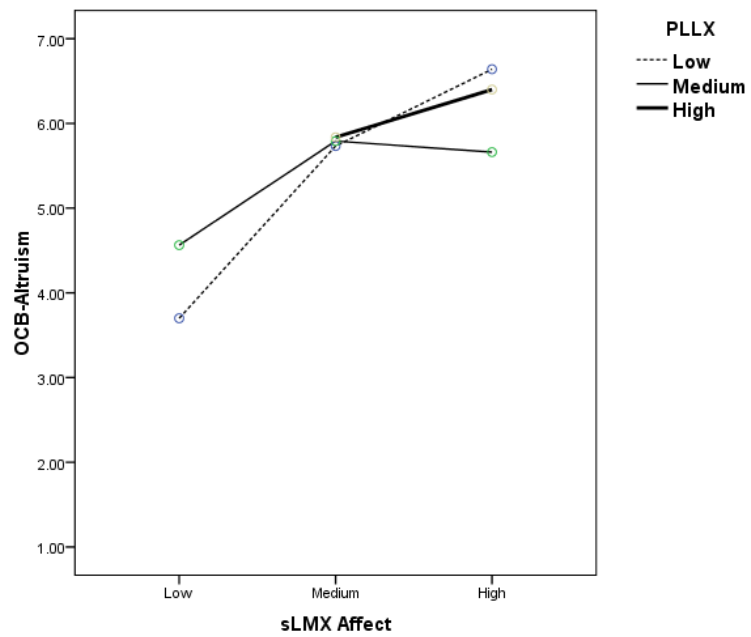


Figure 4.6a. Interaction between sLMX affect and PLLX on OCB-Altruism.

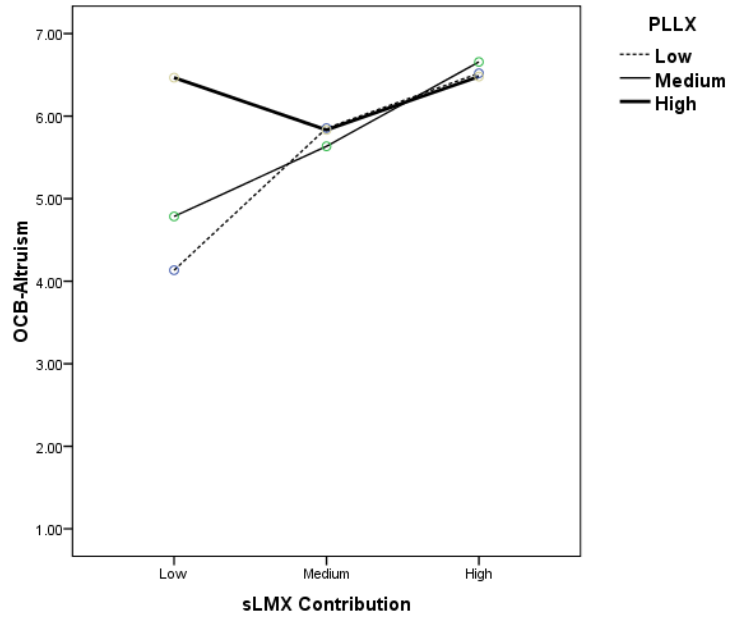


Figure 4.6b. Interaction between sLMX contribution and PLLX on OCB-Altruism.

## 5. Discussion

The primary focus of LMX theory has been towards the relationship between an employee and his or her immediate supervisor. However, modern organizations have grown to the point where employees are affected by more than just one leader (Gronn, 2002). Research has yet to adequately address this gap in the literature (Erdogan & Bauer, 2007). Therefore, the current study looked at the effect that multiple leadership has on employee outcomes, such as affective organizational commitment (AOC), job performance, and organizational citizenship behavior (OCB). The main hypotheses were: (a) LMX is positively related to employee outcomes (AOC, job performance, and OCB); (b) a second LMX relationship ( $LMX_2$ ) moderates the relationship between LMX and employee outcomes; (c) the relationship that the leaders have with each other, as perceived by the leader (LLX), moderates the relationship between LMX and employee outcomes; (d) the relationship between LMX and employee outcomes is moderated by how the member perceives the relationship between the two leaders (PLLX); and (e) leadership structure moderates the relationship between LMX and employee outcomes. Overall, the stated research hypotheses received partial support from the data.

### *Major Findings*

#### *Direct Hypotheses*

Direct hypotheses were generally supported, but there were a few unexpected results. First, Dienesch and Liden (1986) and Liden and Maslyn (1998) both suggested that affect is most likely to have an effect on AOC because it is an attitudinal outcome. However, the present results showed that contribution predicted AOC to a greater degree than affect, when LMX was measured from the member's perspective. This may have

been because, in order for the members to emotionally commit to the organization, they have to feel like they are making a difference. The fact that the member is contributing to the work assignments of superiors suggests that they are helping the organization, indirectly, and thus they are committed to the organization. Therefore, contribution plays a greater role than expected.

Second, professional respect was the only dimension of LMX that predicted job performance rather than the hypothesis that contribution would have the greatest effect. However, these results were not completely unexpected. Professional respect, like contribution, is considered a job-related dimension, thus it should be more predictive of behavioral outcomes, like job performance. Moreover, professional respect is focused around an individual's job-related reputation (Liden & Maslyn, 1998). An individual with a reputation of excelling at his or her job would naturally have high job performance.

In general, LMX did appear to predict many employee outcomes. Furthermore, the employees' and immediate supervisors' ratings of each other helped to separately predict employee outcomes, as suggested in previous literature (Ansari et al., 2007b; Kee et al., 2004). However, LMX<sub>1</sub> was more predictive of employee-rated outcomes (i.e., AOC) and sLMX was more predictive of leader-rated outcomes (i.e., job performance and OCB). Thus it appears that previous responses by participants biased future responses, however, as stated earlier, common method bias was not shown to be an issue with the current study (Podsakoff et al., 2006). On another note, different dimensions were important to predict different employee outcomes. Contribution tended to have the

greatest influence on employee outcomes, especially on AOC and OCB. On the other hand, loyalty did not significantly impact any employee outcomes.

#### *The Moderating Effect of Multiple LMX Relationships*

The findings suggest that, in regards to OCB especially, LMX<sub>2</sub> did not moderate any relationships but was an additional predictor. These findings support previous research by Erdogan and Bauer (2007) who found LMX<sub>2</sub> to be an additional predictor of employee outcomes. Furthermore, they found that this relationship was more important than the traditional LMX in predicting work outcomes; however, their research focused solely on hierarchical structures. In the current study, distributed structures were also included. Therefore, the results of this study extend the work by Erdogan and Bauer (2007) and suggest that members, in both hierarchical and distributed structures, should strive to form multiple high-quality relationships with leaders, because, individually, this leads to the attainment of more resources, and also benefits the leaders as the member reciprocates through OCB.

Job performance was not affected by LMX<sub>2</sub> in any fashion. With these findings, it is important to reiterate that out-group members are employees who are bound to formal job requirements and little else (Dansereau et al., 1975). Furthermore, employers are required to assess an employee's job performance several times a year. Thus even out-group members are noticed for their performance. In relation to this study, it was clear that leaders were quite generous with their ratings of job performance, as the average score of 6.10 was the highest of all criterion variables and the lowest rating of job performance was approximately five out of seven. Based on these findings, job

performance is not a form of reciprocation but rather a requirement that is expected of all employees, regardless of the LMX status of in-group or out-group.

In general, a high-quality relationship with another supervisor, other than the immediate supervisor, did not moderate the relationship between LMX and employee outcomes, barring the exception of AOC. However, LMX<sub>2</sub> is better assessed as another predictor. For instance, high-quality contribution with both leaders was a significant factor in predicting OCB-conscientiousness (i.e., sLMX-contribution and LMX<sub>2</sub>-contribution). Thus employees who were putting in a lot of contribution effort with both leaders were likely to be very conscientious as well. The interaction between LMX<sub>2</sub> with LMX and AOC provided another interesting finding. This interaction suggested that employees who were the most committed tended to have a high-quality relationship with at least one supervisor. An employee did not have to be closely associated with both supervisors to be highly committed. If the employee was part of the in-group with at least one supervisor, he or she was likely to show a great deal of affective commitment towards the organization.

#### *The Moderating Effect of the Leader-Leader Exchange*

As for the unsupported hypotheses, LLX (both leader- and member-perceived) had no effect on AOC. This hypothesis may not have been substantiated for a few reasons. First, as suggested above, it appears that forming a relationship with at least one supervisor is important, and that having two high-quality relationships adds little to the employee's AOC. Another explanation, which relates to the first, is that affective commitment is characterized by having an emotional attachment to the organization (Meyer et al., 1993). Thus the employee is not attempting to reciprocate anything but



rather is genuinely attached to the organization. Normative commitment, on the other hand, is a feeling of obligation where one stays with the organization because they feel they owe it to that organization. Perhaps future research should analyze LLX's relation to normative commitment as this may shed light on this issue.

LLX was only marginally related to job performance, and this was only from the perspective of the member (PLLX). Both affect and loyalty were predictive of job performance when including the moderating effect of PLLX; however, PLLX only influenced loyalty in the proposed direction. With regards to affect, a member who did not have a high-quality friendship with his or her immediate supervisor (affect) and perceived a low-quality relationship between the two supervisors performed the best. This suggests, again, that employees who are in the out-group are still expected to perform to the best of their abilities; the fact that they perform slightly better than their in-group counterparts suggests that they are hoping to be noticed by the supervisors.

LLX and PLLX, together, were predictive of altruism but not conscientiousness. Reasons for this highlight findings from a recent meta-analysis by Ilies et al. (2007). They found that employees are far more likely to engage in individual-directed OCB (e.g., altruism) if they have a high-quality relationship with their immediate supervisor. These sorts of behaviors directly benefit the supervisor. By helping co-workers, the employee is generally helping others in the same work group, thus helping the supervisor by increasing the efficiency of the unit. In a similar vein, both supervisors, whether the structure is hierarchical or distributed, are often a part of the same work group. This was especially apparent with this study. Consequently, in line with Ilie et al's., (2007) findings, employees are engaging in OCB that directly impacts their supervisors so that

reciprocation does not go unnoticed. Conscientiousness, on the other hand, is organizationally-directed. These findings suggest that employees need a greater relationship with the organization to perform organizationally-directed behaviors. However, Brandes et al., (2004) already attempted to explain this phenomenon. They looked at whether perceived organizational support would influence organizational OCB and found no support. Thus future research should continue to look for moderators of organizationally-directed OCB.

Despite the unsupported hypotheses, LLX – perceived by the leader and the member – provided some interesting findings. First, some dimensions of LMX were important in moderating certain employee outcomes, while others were not. For instance, loyalty played a more prominent role in moderating effects than it did for main predictor effects, although this effect was negative. Take OCB-Altruism, for example. The employee always performed more OCB-Altruism if the leader had little loyalty towards the other supervisor. This suggests that the employee helped other employees with work-related issues in an attempt to prove their loyalty to others in the organization, because the leader's loyalty is hard to obtain.

Professional respect also had a negative influence on a few variables. For instance, when leaders did not have very strong professional respect for the employee or the other supervisor, the employee's OCB-Conscientiousness was at the highest level. This suggests that although the member may not be the best at his or her job, they are trying to earn respect in another fashion. The employee may be attempting to excel above the norms of the average employee, by rarely taking sick days or coming in late, in

an attempt to show that they deserve to be part of the in-group, despite an average work performance.

Second, if one was to analyze only LLX's moderating effect on employee outcomes, the results would be misleading. LLX significantly moderated the relationship between LMX and OCB. However, when considering PLLX (leader-leader exchange perceived by the member), the only overlapping that existed with LLX was the relationship between LMX and OCB-Altruism. Therefore, these results suggest that, barring the exception of altruism, the exchange between the leaders was not essential to motivating the employee to perform better, engage in more conscientious behavior or become more committed to the organization. It may be that the employee perceives that his or her leader is well supported by the organization and thus is able to disburse more resources, as suggested by Erdogan and Enders (2007).

#### *The Moderating Effect of Leadership Structure*

Unexpectedly, leadership structure had no influence on the relationship between LMX and employee outcomes. It was expected that hierarchical leadership structures would play a greater role because of the linking-pin mechanism. That is, the immediate supervisor would be able to delegate resources from the higher superior. No such findings were observed. The most logical reasoning for this may be explained by the sample of the study. Most of the participants were from small organizations, and, in most cases, the employees had face-to-face interactions with both supervisors. Furthermore, as stated previously, in either case of hierarchical or distributed, the supervisors generally worked alongside each other and supervised the same work units. This suggests that there was not a great gap between supervisors in hierarchical structures. The employee could

approach both supervisors when he or she was in need of resources. This is in contrast to larger multinational corporations where the higher superior may not occupy the same work area. In fact, the higher superior may not even work in the same building or country.

However, it is important to note that while leadership structure had no influence on the relationship between LMX and employee outcomes, it was shown to be an additional predictor of some employee outcomes, mainly AOC and OCB-altruism. In the case of AOC, distributed leadership structures were more predictive of high-quality AOC than hierarchical leadership structures, which was opposite to the hypothesis. However, this finding provides an interesting link to the finding that members should have a high-quality relationship with at least one supervisor have high-quality AOC. In a distributed structure, both leaders of equal status, so thus it appears having a high-quality relationship with at least one immediate supervisor is the most predictive of AOC. Conversely, hierarchical structures were more predictive of OCB-altruism which would suggest that individuals who are participating in these behaviors are trying to get noticed, in an attempt to move up in the organization.

#### *Theoretical Contributions*

This study extends leadership research in several ways. First, although LMX scholars have recognized OCB as an important employee outcome associated with supervisor-subordinate relationships, it has not yet been adequately examined under the lens of multiple leadership. The current study addressed this issue, and while the hypotheses were not completely supported, some interesting findings were revealed. Second, the study expands on a very limited amount of research that specifically focuses

on the dimensions of LMX (e.g., Ansari et al., 2007a). The study suggests instances when each dimension is more or less important in predicting employee outcomes. For instance, both affect and contribution were among the most important dimensions when predicting AOC. Third, the study is one of the first to incorporate both hierarchical and distributed leadership structures into the same research. Last, the analysis of LLX from both the perspective of the member and the leader provided some very beneficial information that can help shape future research. For instance, altruism appeared to be the only employee outcome that was moderated by LLX, when tested from both perspectives.

### *Practical Implications*

There are numerous practical implications that should be highlighted. First, the results suggest a halo effect of supervisor ratings, as their ratings of relationships with subordinates affected how they rated the subordinates' OCB. Therefore, supervisors should be cautious to ensure that highly-favored subordinates are engaging in OCB. Supervisors may be giving praise to employees when it is not warranted. Second, the results suggest that if organizations want their employees to be committed, employees have to feel like they fit in (i.e., are part of the in-group) with at least one supervisor, but it is not vital to be highly associated with more than one. Third, the results suggest that both forms of leadership structure are equally important. Employers should not assume that employing one system or the other will increase commitment, performance and OCB, by itself. Fourth, in the case of altruism, it is important for a leader to have a high-quality relationship (specifically focusing on the LMX dimensions of affect and contribution) with the other supervisor, in a public fashion. This is especially true if both supervisors are supervising the same work-unit, because an employee who perceives said

relationship and helps other co-workers with work-related issues increases the general efficiency of the work unit.

#### *Potential Limitations*

Despite various theoretical contributions and practical implications, the study has a few limitations. First, the study may have been compromised by a relatively small sample size. This was especially important because many of the main and moderating effects were extremely close to appropriate significance levels (e.g., LLX-contribution's moderating effect on sLMX-contribution and OCB-Conscientiousness). Therefore, some of the unsupported hypotheses may have been substantiated with a greater sample size. Second, although the data was collected from a variety of business sectors, the samples of each sector were very limited, thus generalizability cannot be applied. A greater sample size of each sector would add to the generalizability of the results. Third, data were collected at one point in time from supervisors and subordinates. The cross-sectional design of the study limits the ability to infer causality. I would encourage others to further explore the phenomena uncovered in the present research through experimental and/or longitudinal designs. Finally, not all supervisors were surveyed in the distributed structure which could have resulted in biases. Future research may benefit from surveying all equal leaders in distributed structures.

#### *Future Research Directions*

Future research should aim towards understanding the relationship between multiple leadership and employee outcomes to a greater degree. Perhaps a focus on such variables as job satisfaction and turnover intentions would help extend the very limited research on the topic of multiple leadership, as these variables have not been applied to

this type of research as of yet. Furthermore, the results suggested that LLX does not have the overall expected influence on employee outcomes. Future research should aim towards distinguishing leaders who are supported by the organization and those that are on good terms with other supervisors, as this would help resolve questions pertaining to this research and other recent studies. Further, there exists little research on substitute informal leader-member relationships; future research should attempt to address this gap in the literature. For instance, individuals who are considered among the leader's most trusted assistants (i.e., highest in the in-group) are given much responsibility and many resources which they are able to delegate to other employees (Ansari et al., 2007b). There should be research that focuses on the relationships that these trusted assistants have with out-group members. It is plausible that a high-quality relationship with an immediate supervisor (formal leader) is not vital if an out-group member has a high-quality relationship with one of the supervisor's most trusted assistants (informal leader). This type of research may help to uncover additional conditions where employees benefit from multiple LMX relationships.

### *Conclusion*

As Erdogan and Bauer (2007) suggested, traditional organizations following a unity-of-command principle are becoming rare, yet much LMX research is dominated by studies focusing on a single LMX relationship. This study's aim was to address this research gap, and findings suggest that it is important to investigate multiple LMX relationships and leadership structures. Furthermore, it is important to investigate the LLX relationship, from both the perspective of the member and the leader. When a

multiple leadership perspective is taken, LMX theory provided a powerful framework to further understand what motivates an employee's attitudinal and behavioral outcomes.



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## Appendix A

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### WORK OPINIONS & BEHAVIOR STUDY (Employee Survey)

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Dear Participant,

You have been invited to participate in a research study on workplace relationships and behaviors. This research will require about twenty minutes of your time. There are no anticipated risks or discomforts related to this research. By participating, you may benefit others by helping people to better understand the relationship between supervisors and their subordinates. In addition, as a thank-you, your name will be entered into a draw for a \$ 100 dollar gift certificate for a local shopping mall.

Several steps will be taken to ensure that the identity of all respondents remains completely confidential. You will return the questionnaire directly to the researcher. Your supervisor(s) will potentially be participating in the survey and may therefore respond to questions pertaining to your work behaviors. Thus your name and the names of your supervisor(s) may be on the survey, but *neither your supervisor(s) nor any other member of your organization* will see any of your responses. In fact, no one apart from the researcher will know whether you completed the survey or not. The completed surveys will be kept in a locked filing cabinet at the University of Lethbridge, and only the researcher and his supervisors will have access to the surveys. All information will be destroyed after 5 years.

Your participation in this research is completely voluntary. You are free to withdraw from the study at anytime, without penalty. The results from this study will be presented as part of a Master's thesis. In addition, the results may be presented in writing in journals read by academic scholars and by business professionals. The results may also be presented in person to groups of business professionals or academic scholars. If you wish to receive a copy of the results from this study, you may contact the researcher (email: [byron.bader@uleth.ca](mailto:byron.bader@uleth.ca), phone: 403-894-7308). If you have any other questions regarding your rights as a participant in this research, you may contact the Office of Research Services at the University of Lethbridge at 403-329-2747.

Your completion of this survey indicates your agreement to participate. Once you have completed the survey, please place it in the accompanying envelope and seal. The researcher will pick the surveys up, in person, at a later date.

**Please retain this page for future reference**

Byron Bader  
Masters of Science Candidate

Supervisors:

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**INSTRUCTIONS:**

**Please write your full name below.** *This is solely for matching purposes and nobody else will see the responses but the researcher. All names will be destroyed as soon as data is entered in the computer.* This survey, labeled "Work Relationships and Attitudes Questionnaire," consists of two sections. Please read through each question carefully, and **circle** the appropriate response. **For each question, there is no right or wrong answer so please answer each question truthfully.** When you have completed the survey, please place it in the pre-addressed, stamped envelope provided and mail to the researcher.

All individuals are eligible to receive a \$100 gift certificate from a local mall. **Please write your email address at the bottom of this page if you would like to be entered into a draw for one of three \$100 gift certificates.** The email address will be removed from the survey and placed in a box. Participants will be randomly drawn from the box after data collection has concluded. The researcher will contact the winners via email and inform them that they have won one of the gift certificates. Arrangements will then be made for the participant to obtain the gift certificate. If you choose not to provide an email address you will not be entered in the draw.

**Your full name:** \_\_\_\_\_

**Email address:** \_\_\_\_\_

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**Work Relationships and Attitudes Questionnaire**

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**SECTION A**

**A1**

**Your immediate Supervisor's full name (A):** \_\_\_\_\_

The following statements are about the **relationship between you and your current immediate supervisor (Supervisor A)**. Please indicate the degree of your **agreement or disagreement** with each statement by **CIRCLING** the number of your choice to the right of the statement, based on the scale given below. There are no right or wrong answers.

**1 = Strongly Agree**  
**2 = Agree**  
**3 = Agree Somewhat**  
**4 = Undecided**  
**5 = Disagree Somewhat**  
**6 = Disagree**  
**7 = Strongly Disagree**

1. I like my immediate supervisor very much as a person.	1	2	3	4	5	6	7
2. My immediate supervisor would come to my defense if I were "attacked" by others.	1	2	3	4	5	6	7
3. My immediate supervisor is a lot of fun to work with.	1	2	3	4	5	6	7
4. I do not mind working my hardest for my immediate supervisor.	1	2	3	4	5	6	7
5. I respect my immediate supervisor's knowledge of and competence on the job.	1	2	3	4	5	6	7
6. I do work for my immediate supervisor that goes beyond what is specified in my job description.	1	2	3	4	5	6	7
7. My immediate supervisor is the kind of person one would like to have as a friend.	1	2	3	4	5	6	7
8. I am willing to apply extra efforts, beyond those normally required, to meet my immediate supervisor's work goals.	1	2	3	4	5	6	7
9. My immediate supervisor defends my work actions to a superior, even without complete knowledge of the issue in question.	1	2	3	4	5	6	7
10. I am impressed with my immediate supervisor's knowledge of his/her job.	1	2	3	4	5	6	7
11. My immediate supervisor would defend me to others in the organization if I made an honest mistake.	1	2	3	4	5	6	7
12. I admire my immediate supervisor's professional skills.	1	2	3	4	5	6	7

**A2**

Your supervisor's superior's full name (B): \_\_\_\_\_

The following statements are about the **relationship between you and your current immediate supervisor's superior (Supervisor B)**. Please indicate the degree of your **agreement or disagreement** with each statement by **CIRCLING** the number of your choice to the right of the statement, based on the scale given below. There are no right or wrong answers.

<p><b>1 = Strongly Agree</b>  <b>2 = Agree</b>  <b>3 = Agree Somewhat</b>  <b>4 = Undecided</b>  <b>5 = Disagree Somewhat</b>  <b>6 = Disagree</b>  <b>7 = Strongly Disagree</b></p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

1. I admire my immediate supervisor's superior's professional skills.	1	2	3	4	5	6	7
2. My immediate supervisor's superior would defend me to others in the organization if I made an honest mistake.	1	2	3	4	5	6	7
3. I am impressed with my immediate supervisor's superior's knowledge of his/her job.	1	2	3	4	5	6	7
4. My immediate supervisor's superior defends my work actions to a superior, even without complete knowledge of the issue in question.	1	2	3	4	5	6	7
5. I am willing to apply extra efforts, beyond those normally required, to meet my immediate supervisor's superior's work goals.	1	2	3	4	5	6	7
6. My immediate supervisor's superior is the kind of person one would like to have as a friend.	1	2	3	4	5	6	7
7. I do work for my immediate supervisor's superior that goes beyond what is specified in my job description.	1	2	3	4	5	6	7
8. I respect my immediate supervisor's superior's knowledge of and competence on the job.	1	2	3	4	5	6	7
9. I do not mind working my hardest for my immediate supervisor's superior.	1	2	3	4	5	6	7
10. My immediate supervisor's superior is a lot of fun to work with.	1	2	3	4	5	6	7
11. My immediate supervisor's superior would come to my defense if I were "attacked" by others.	1	2	3	4	5	6	7
12. I like my immediate supervisor's superior very much as a person.	1	2	3	4	5	6	7

**SECTION B**

**B1**

***Please keep your responses to the above section in mind when responding to B1.***

The following statements are about the **relationship between** the two supervisors (A and B) discussed above in either sections A1, A2, and A3 or sections B1 and B2. Please indicate the degree of your **agreement or disagreement** with each statement by **CIRCLING** the number of your choice to the right of the statement, based on the scale given below. There are no right or wrong answers.

- |                              |
|------------------------------|
| <b>1 = Strongly Agree</b>    |
| <b>2 = Agree</b>             |
| <b>3 = Agree Somewhat</b>    |
| <b>4 = Undecided</b>         |
| <b>5 = Disagree Somewhat</b> |
| <b>6 = Disagree</b>          |
| <b>7 = Strongly Disagree</b> |

1. These individuals do not mind working their hardest for each other.	1	2	3	4	5	6	7
2. These individuals are impressed by each other's knowledge of the job.	1	2	3	4	5	6	7
3. These individuals have a lot of fun working with each other.	1	2	3	4	5	6	7
4. These individuals like each other very much as people.	1	2	3	4	5	6	7
5. These individuals respect each other's knowledge of and competence on the job.	1	2	3	4	5	6	7
6. These individuals would defend each other to others in the organization if one made an honest mistake.	1	2	3	4	5	6	7
7. These individuals are good friends.	1	2	3	4	5	6	7
8. These individuals would come to each others' defense if "attacked" by others.	1	2	3	4	5	6	7
9. These individuals apply extra efforts, beyond those normally required, to meet each other's goals.	1	2	3	4	5	6	7
10. These individuals admire each other's professional skills.	1	2	3	4	5	6	7



**B2**

The following statements are about your **current workgroup and organization**. Please indicate the degree of your **agreement or disagreement** with each statement by **CIRCLING** the number of your choice to the right of the statement, based on the **5 point** scale given below. There are no right or wrong answers.

<b>1 = Strongly Agree</b>
<b>2 = Agree</b>
<b>3 = Neutral</b>
<b>4 = Disagree</b>
<b>5 = Strongly Disagree</b>

1. I do not feel like “part of the family” at my organization.	1	2	3	4	5
2. I do not feel emotionally attached to my organization.	1	2	3	4	5
3. I really feel as if my organization’s problems are my own.	1	2	3	4	5
4. This organization has a great deal of personal meaning for me.	1	2	3	4	5
5. I really feel a sense of “belonging” to my organization.	1	2	3	4	5
6. I am proud to belong to this organization.	1	2	3	4	5

**B3**

The following statements are about **your general attitudes and behaviors**. Please indicate whether the statements below are true or false by **CIRCLING** your choice to the right of the statement. There are no right or wrong answers.

<b>T = True</b>
<b>F = False</b>

1. I have never intensely disliked anyone.	T	F
2. No matter who I’m talking to, I’m always a good listener.	T	F
3. I’m always willing to admit it when I make a mistake.	T	F
4. I am always courteous, even to people who are disagreeable.	T	F
5. I have never been irked when people expressed ideas very different from my own.	T	F
6. I have never felt that I was punished without cause.	T	F
7. I have never deliberately said something that hurt someone’s feelings.	T	F

**B4**

**In this section: For all multiple choice questions please place a check next to the most appropriate answer. For all other questions please fill in the spaces provided.**

1. What is your age? \_\_\_\_\_ years

2. What is your gender? \_\_\_\_\_ 1. M \_\_\_\_\_ 2.F

3. What is the gender of supervisor A? \_\_\_\_\_ 1. M \_\_\_\_\_ 2. F

4. What is the gender of supervisor B? \_\_\_\_\_ 1. M \_\_\_\_\_ 2. F

5. What is your racial/ethnic heritage?

- \_\_\_\_\_ 1. White/Anglo or European
- \_\_\_\_\_ 2. Black/African
- \_\_\_\_\_ 3. Asian, Pacific Islander
- \_\_\_\_\_ 4. Aboriginal
- \_\_\_\_\_ 5. Bi-racial or multi-racial
- \_\_\_\_\_ 0. Other: \_\_\_\_\_ (please specify)

6. What is the racial/ethnic heritage of supervisor A?

- \_\_\_\_\_ 1. White/Anglo or European
- \_\_\_\_\_ 2. Black/African
- \_\_\_\_\_ 3. Asian, Pacific Islander
- \_\_\_\_\_ 4. Aboriginal
- \_\_\_\_\_ 5. Bi-racial or multi-racial
- \_\_\_\_\_ 0. Other: \_\_\_\_\_ (please specify)

7. What is the racial/ethnic heritage of supervisor B?

- \_\_\_\_\_ 1. White/Anglo or European
- \_\_\_\_\_ 2. Black/African
- \_\_\_\_\_ 3. Asian, Pacific Islander
- \_\_\_\_\_ 4. Aboriginal
- \_\_\_\_\_ 5. Bi-racial or multi-racial
- \_\_\_\_\_ 0. Other: \_\_\_\_\_ (please specify)

8. What is your job title? \_\_\_\_\_

9. What is the highest level of education you have completed?

- \_\_\_\_\_ 1. High school or below
- \_\_\_\_\_ 2. Diploma
- \_\_\_\_\_ 3. Bachelors
- \_\_\_\_\_ 4. Masters
- \_\_\_\_\_ 5. Doctorate

10. How does your present job/position fit into the following staff categories?

- \_\_\_\_\_ 1. Top Level of Management
- \_\_\_\_\_ 2. Middle Level of Management

- 3. Lower Level of Management
- 4. Clerical
- 0. Other (please specify): \_\_\_\_\_

11. What is supervisor A's position? \_\_\_\_\_

12. How long have you been working at this position? \_\_\_\_\_ years

13. How long have you been working at this organization? \_\_\_\_\_ years

14. How long have you worked for supervisor A? \_\_\_\_\_ years

15. In which sector do you work?

- 1. Food Products
- 2. Beverage and Tobacco Product s
- 3. Textiles and Apparel
- 4. Paper and Wood Products
- 5. Printing and Related Activities
- 6. Petroleum and Coal Products
- 7. Chemical Products
- 8. Plastics and Rubber Products
- 9. Nonmetallic Mineral Product
- 10. Primary or Fabricated Metal Products
- 11. Machinery
- 12. Computer and Electronic Products
- 13. Electrical Equipment and Appliances
- 14. Transportation Equipment
- 15. Furniture and Related Products
- 16. Public Service
- 17. Customer Service
- 18. Other \_\_\_\_\_ (please specify)

16. Approximately how many people work in your organization?

- 1. Less than 50 people
- 2. 51 to 100 people
- 3. 100-500 people
- 4. More than 500 people

17. What type of interaction do you generally have with Supervisor A?

- 1. Video Conferencing/Telephone
- 2. E-mail/Internet messaging
- 3. Face-to-face

18. What type of interaction do you generally have with Supervisor B?

- 1. Video Conferencing/Telephone
- 2. E-mail/Internet messaging
- 3. Face-to-face

19. How frequently do you interact with Supervisor A?

- 1. Never – A few times a year
- 2. Once every few months
- 3. Once a month
- 4. Once every few weeks
- 5. Once a week
- 6. Once a day
- 7. Constantly throughout the day

20. How frequently do you interact with Supervisor B?

- 1. Never – A few times a year
- 2. Once every few months
- 3. Once a month
- 4. Once every few weeks
- 5. Once a week
- 6. Once a day
- 7. Constantly throughout the day

21. How many hours per week do you work for the current organization?

- 1. 40 or more
- 2. 30-39
- 3. 20-29
- 4. 10-19
- 5. Less than 10

## Appendix B

University of  
Lethbridge



Faculty of Management

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### WORK OPINIONS & BEHAVIOR STUDY (Leader Survey)

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Dear Participant,

You have been invited to participate in a research study on workplace relationships and behaviors. This research will require about half an hour of your time. There are no anticipated risks or discomforts related to this research. By participating, you may benefit others by helping people to better understand the relationship between supervisors and their subordinates. In addition, as a thank-you, your name will be entered into a draw for a \$ 100 dollar gift certificate for a local shopping mall.

Several steps will be taken to ensure that the identity of all respondents remains completely confidential. The questionnaires may contain your name and your subordinates' names so that we can match the responses from you and your employees. However, *neither your employees nor your organization will see any of your responses*. You will return the questionnaire directly to the researcher. The completed surveys will be kept in a locked filing cabinet at the University of Lethbridge, and only the researcher and his supervisors will have access to the information provided. All information will be destroyed after 5 years.

Your participation in this research is completely voluntary. You are free to withdraw from the study at anytime, without penalty. The results from this study will be presented as part of a Master's thesis. In addition, the results may be presented in writing in journals read by academic scholars and by business professionals. The results may also be presented in person to groups of business professionals or academic scholars. All data is presented in aggregate format; at no time will your name be used or any identifying information revealed. If you wish to receive a copy of the results from this study, you may contact the researcher (e-mail: [byron.bader@uleth.ca](mailto:byron.bader@uleth.ca), phone: 403-894-7308). If you have any other questions regarding your rights as a participant in this research, you may contact the Office of Research Services at the University of Lethbridge at 403-329-2747.

Your completion of this survey indicates your agreement to participate. Once you have completed the survey, please place it in the accompanying envelope and seal. The researcher will pick the surveys up, in person, at a later date.

**Please retain this page for future reference**

Byron Bader  
Masters of Science Candidate

Supervisors:

Dr. Mahfooz A. Ansari    email: [mahfooz.ansari@uleth.ca](mailto:mahfooz.ansari@uleth.ca)    phone: 329-2069  
Dr. Janelle R. Enns    email: [janelle.enns@uleth.ca](mailto:janelle.enns@uleth.ca)    phone: 382-7144

**INSTRUCTIONS:**

**Please write your full name below.** *This is solely for matching purposes and nobody else will see the responses but the researcher. All names will be destroyed as soon as data is entered in the computer.* There are **two types of surveys** included in this package. The **first survey labeled “Work attitudes and beliefs,”** we require you to **fill out only once.** The second **survey is labeled “Employee relationships and behaviors”.** This survey is meant to be filled out for each your subordinates. Please write the name of the subordinate you are speaking of at the start of each of the second survey. Upon completion of the surveys, please place all surveys in the pre-addressed, stamped envelope and mail to the researcher. After you have completed the survey, place it in the accompanying envelope and seal. The researcher will pick up the surveys in person at a later date.

All individuals are eligible to receive a \$100 gift certificate from a local mall. **Please write your email address at the bottom of this page if you would like to be entered into a draw for one of three \$100 gift certificates.** The email address will be removed from the survey and placed in a box. Participants will be randomly drawn from the box after data collection has concluded. The researcher will contact the winners via email and inform them that they have won one of the gift certificates. Arrangements will then be made for the participant to obtain the gift certificate. If you choose not to provide an email address you will not be entered in the draw.

**Your full name:** \_\_\_\_\_

**Email address:** \_\_\_\_\_

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**1. Work attitudes and beliefs**

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**SECTION A**

**A1**

**Your immediate supervisor's full name:** \_\_\_\_\_

The following statements are about the relationship between you and your current immediate *supervisor*. Please indicate the degree of your agreement or disagreement with each statement by **CIRCLING** the number of your choice to the right of the statement, based on the scale given below. There are no right or wrong answers.

**1 = Strongly Agree**  
**2 = Agree**  
**3 = Agree Somewhat**  
**4 = Undecided**  
**5 = Disagree Somewhat**  
**6 = Disagree**  
**7 = Strongly Disagree**

1. I admire my immediate supervisor's professional skills.	1	2	3	4	5	6	7
2. My immediate supervisor would defend me to others in the organization if I made an honest mistake.	1	2	3	4	5	6	7
3. I am impressed with my immediate supervisor's knowledge of his/ her job.	1	2	3	4	5	6	7
4. My immediate supervisor defends my work actions to a superior, even without complete knowledge of the issue in question.	1	2	3	4	5	6	7
5. I am willing to apply extra efforts, beyond those normally required, to meet my immediate supervisor' work goals.	1	2	3	4	5	6	7
6. My immediate supervisor is the kind of person one would like to have as a friend.	1	2	3	4	5	6	7
7. I do work for my immediate supervisor that goes beyond what is specified in my job description.	1	2	3	4	5	6	7
8. I respect my immediate supervisor's knowledge of and competence on the job.	1	2	3	4	5	6	7
9. I do not mind working my hardest for my immediate supervisor.	1	2	3	4	5	6	7
10. My immediate supervisor is a lot of fun to work with.	1	2	3	4	5	6	7
11. My immediate supervisor would come to my defense if I were "attacked" by others.	1	2	3	4	5	6	7
12. I like my immediate supervisor very much as a person.	1	2	3	4	5	6	7

**A2**

The following statements are about your general attitudes and behaviors. Please indicate whether the statements below are true or false by CIRCLING your choice to the right of the statement. There are no right or wrong answers.

<b>T = True</b> <b>F = False</b>
-------------------------------------

1. I have never intensely disliked anyone.	T	F
2. No matter who I'm talking to, I'm always a good listener.	T	F
3. I'm always willing to admit it when I make a mistake.	T	F
4. I am always courteous, even to people who are disagreeable.	T	F
5. I have never been irked when people expressed ideas very different from my own.	T	F
6. I have never felt that I was punished without cause.	T	F
7. I have never deliberately said something that hurt someone's feelings.	T	F

**A3**

1. What is your age? \_\_\_\_ years
2. What is the highest level of education you have completed?  
\_\_\_\_ 1. High school or below; \_\_\_\_ 2. Diploma; \_\_\_\_ 3. Bachelors; \_\_\_\_ 4. Masters; \_\_\_\_ 5. Doctorate
3. How does your present job/position fit into the following staff categories?  
\_\_\_\_ 1. Top Level of Management  
\_\_\_\_ 2. Middle Level of Management  
\_\_\_\_ 3. Lower Level of Management  
\_\_\_\_ 0. Other (please specify) \_\_\_\_\_
4. How long have you been with the present organization? \_\_\_\_ years
5. How long have you worked for your immediate supervisor? \_\_\_\_ years
6. What type of interaction do you generally have with your immediate superior?  
\_\_\_\_ 1. Video Conferencing/Telephone  
\_\_\_\_ 2. E-mail/Internet messaging  
\_\_\_\_ 3. Face-to-face
7. Approximately how frequently do you interact with your immediate superior?  
\_\_\_\_ 1. Never or a few times a year  
\_\_\_\_ 2. Once every few months  
\_\_\_\_ 3. Once a month  
\_\_\_\_ 4. Once every few weeks  
\_\_\_\_ 5. Once a week  
\_\_\_\_ 6. Once a day  
\_\_\_\_ 7. Constantly throughout the day



8. How many hours per week do you work for the current organization?

- \_\_\_\_\_ 1. 40 or more
- \_\_\_\_\_ 2. 30-39
- \_\_\_\_\_ 3. 20-29
- \_\_\_\_\_ 4. 10-19
- \_\_\_\_\_ 5. Less than 10

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## 2. Employee Relationships and Behaviors

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### SECTION B

Please complete sections B1 and B2 for each your subordinates. Please write the full name of the subordinate you are speaking of (solely for matching purposes).

#### **B1**

The following statements are about the relationship between you and your immediate *subordinate*. Please indicate the degree of your agreement or disagreement with each statement by CIRCLING the number of your choice to the right of the statement based on the scale given below. There are no right or wrong answers.

**Immediate subordinate's full name:** \_\_\_\_\_

**1 = Strongly Agree**  
**2 = Agree**  
**3 = Agree Somewhat**  
**4 = Undecided**  
**5 = Disagree Somewhat**  
**6 = Disagree**  
**7 = Strongly Disagree**

1. I like this employee very much as a person.	1	2	3	4	5	6	7
2. This employee would come to my defense if I were "attacked" by others.	1	2	3	4	5	6	7
3. This employee is a lot of fun to work with.	1	2	3	4	5	6	7
4. I do not mind working my hardest for this employee.	1	2	3	4	5	6	7
5. I respect this employee's knowledge of and competence on the job.	1	2	3	4	5	6	7
6. I do work for this employee that goes beyond what is specified in my job description.	1	2	3	4	5	6	7
7. This employee is the kind of person one would like to have as a friend.	1	2	3	4	5	6	7
8. This employee is willing to apply extra efforts, beyond those normally required, to meet my work goals.	1	2	3	4	5	6	7
9. I would defend the work actions of this employee to a superior, even without complete knowledge of the issue in question.	1	2	3	4	5	6	7
10. I am impressed with this employee's knowledge of his/ her job.	1	2	3	4	5	6	7
11. This employee would defend me to others in the organization if I made an honest mistake.	1	2	3	4	5	6	7
12. I admire this employee's professional skills.	1	2	3	4	5	6	7

**B2**

Listed below are various work behaviors of a worker in the workplace. Please read each statement carefully and decide how frequently the subordinate listed above demonstrates these behaviors at work. Please CIRCLE the number of your choice to the right of the statement based on the scale given below. There are no right or wrong answers.

<b>1 = Strongly Agree</b>
<b>2 = Agree</b>
<b>3 = Agree Somewhat</b>
<b>4 = Undecided</b>
<b>5 = Disagree Somewhat</b>
<b>6 = Disagree</b>
<b>7 = Strongly Disagree</b>

1. This employee does not take extra breaks.	1	2	3	4	5	6	7
2. This employee obeys company rules and regulations even when no one is watching.	1	2	3	4	5	6	7
3. This employee is one of my most conscientious employees.	1	2	3	4	5	6	7
4. This employee attendance at work is above the norm.	1	2	3	4	5	6	7
5. This employee believes in giving an honest day's work for an honest day's pay.	1	2	3	4	5	6	7
6. This employee helps others who have been absent.	1	2	3	4	5	6	7
7. This employee is always ready to lend a helping hand to those around him/her.	1	2	3	4	5	6	7
8. This employee helps others who have work related problems.	1	2	3	4	5	6	7
9. This employee willingly helps others who have work-related problems.	1	2	3	4	5	6	7
10. This employee helps others who have heavy workloads.	1	2	3	4	5	6	7
11. This employee adequately completes assigned duties.	1	2	3	4	5	6	7
12. This employee fulfills responsibilities specified in his/her job description.	1	2	3	4	5	6	7
13. This employee performs tasks that are expected of him/her.	1	2	3	4	5	6	7
14. This employee meets formal performance requirements of the job.	1	2	3	4	5	6	7
15. This employee engages in activities that will directly affect his/her performance evaluation.	1	2	3	4	5	6	7
16. This employee neglects aspects of the job he/she is obligated to perform.	1	2	3	4	5	6	7
17. This employee fails to perform essential duties.	1	2	3	4	5	6	7