

**Leader-Member Exchange and Work Value Congruence:  
A Multiple Levels Approach**

by

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*"...social order is based fundamentally  
on a shared social reality which, in  
turn, is a human construction, being  
created in social interaction."*

*Scott (1987)*

# **Leader-Member Exchange and Work Value Congruence:**

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**Management**

**(ABSTRACT)**

This research examines leadership exchange relationships within the social framework of interpersonal work values. The three major purposes of this effort are: (1) to determine whether the dyad is the appropriate level of analysis at which to study leader-member relationships; (2) to determine if traditional measures of leader-member exchanges (leadership attention and quality of exchange) are less important as predictors of relevant outcomes than competence, loyalty, and liking (dimensions reported to be better representations of the exchange relationship); and (3) whether convergence by the leader and the member on a common set of work values makes a difference in the exchange relationship.

Multi-source data (matching superior-subordinate reports) for 110 dyads indicate that the leader-member exchange relationship is best described at the dyad level when Within and Between Analysis (WABA) is employed to test the relationship. These results also reveal that traditional measures of the leader-member exchange relationship cannot be totally discounted when examining the dimensionality of the exchange. Quality of exchange and leader attention continue to explain important

variance over and above that which can be explained by the newer affective dimensions. However, competence, liking, and loyalty alone are better predictors of subordinate performance, commitment, and turnover intentions.

Convergence on leader-member interpersonal work values is not only a direct predictor of organizational commitment, turnover intentions, and job satisfaction, but also contributes significantly to additional explained variance over and above the effects shown by the leader-member exchange. Future research should continue to examine these important social/psychological processes which occur between the leader and his or her subordinates at the dyad level of analysis utilizing multi-source data analytic techniques.



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## CHAPTER 1

### A Social Exchange Perspective of Leadership

For much of the last five decades, leadership research has evolved around taxonomies centered on the behavior of leaders, without regard to the social context in which the leader was involved. Many of the early taxonomies were based on the leader's concern for the task (authoritative style, autocratic style, directive style, initiating structure style) or the leader's affinity toward his/her subordinates (participative style, democratic style, consideration style, supportive style) (e.g., Lewin & Lippitt, 1938; Stogdill, 1948, 1974; Mann, 1959; McGregor, 1960; Blake & Mouton, 1964; and Bowers & Seashore, 1966).<sup>1</sup> For the most part these early researchers were only concerned with the one-way flow of the leader's behavior in relation to a group of direct subordinates rather than the interaction process between the leader and his or her subordinates. This has been rectified somewhat in recent years with the examination of exchange relationships. Yet, even this research has been equally lacking in its concern for the conceptual linkage between leadership and social values surrounding the leader and subordinates. This dissertation will use matched superior-subordinate reports to examine (1) the mutual exchange relationship and (2) the effects of shared social values on that relationship.

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<sup>1</sup>For a general review of these early leadership theories see: Jago, 1982; Yukl, 1989; and Bass, 1990.

The interaction process involves exchanges, the giving of rewards to subordinates which prompt returns "in kind" (Dansereau, Alutto, & Yammarino, 1984). Previously, researchers averaged these exchanges across all members within the leader's group such that a leader's average leadership style could be described (ALS; Dansereau, Cashman, & Graen, 1973; Graen, Dansereau, Minami, & Cashman, 1973; and Graen, Liden, & Hoel, 1982).

The average leadership style (ALS), an aggregate of subordinates' perceptions of a singular leadership style giving an overall description of the leader's behavior, presupposes that the leader maintains independence from any closely held relationship with his or her subordinates. Therefore, the leader is perceived as treating all subordinates in the same manner, across the supervisory group.<sup>2</sup> An underlying assumption of the ALS approach regards the leader's style as stable; any individual contribution by subordinates merely appears as measurement error (Graen, Dansereau, & Minami, 1972; Dansereau et al., 1973; and Dienesch & Liden, 1986). This view of a leader's behavior has given way to more sophisticated "theories" of leadership dealing with interaction/social learning, transactions/exchanges, perceptions, cognitions, social-information processing, and hybrid conceptualizations involving transformational leadership (Bass, 1990).

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<sup>2</sup>Supervisory groups consist of the leader and all "direct" reporting relationships under that leader. The ALS approach places the leader as the head of the group. Supervisory groups, although, should not be confused with Jacob's (1970) notion of a leadership and supervision dichotomy in exchange behavior.

### **Social exchange relationships**

In contrast to the ALS model of leadership there has been a movement toward investigating an exchange view of relationships. Homan's (1950, 1958) and Gibb's (1954) were among the first researchers to discuss leadership in terms of this interactional phenomenon. The structure of the group determined the basic interrelations between groups members. Social exchange theory, an early theoretical development, is based upon the mutual and fair exchange between group members in the pursuit of a common goal (Bass, 1990). Mutuality and fairness are fundamental to the exchange relationship, whereby the group leader is expected to meet the collective requirements of group members. Like ALS, the failure to differentiate group members, coupled with a narrow focus on a leader's expert power and authority, underscores the theory's major weaknesses (Hollander, 1978; Yukl, 1989).

Despite these weaknesses, the social exchange theory provides a framework for leader-member differentiation. Hollander (1978) confirms this by his belief that leaders and subordinates are more likely to have differentiated relationships in which each party contributes and receives something. For Hollander this is where one will find the "locus of leadership."

### **Role exchange relationships**

Closely paralleling social exchange theory, role theory also adopts the idea that all social interactions principally develop as an exchange. Role theory's integration into the leadership domain marked the beginning of a stream of empirical

research taking into account aspects of a mutually reciprocal and differentiated exchange process. Gross, Mason, and McEachern (1958), building on early postulates that regard roles as interactive systems within formal organizations (see for example Linton, 1936; Newcomb, 1951; Parsons, 1951; and Merton, 1957), were the first to examine empirically the multiple facets of role systems. Their research introduced the concept of a hierarchical system of roles whereby an individual in a focal position occupies that position in relationship to others in counter positions.<sup>3</sup> The relationship between the leader and each counter position represents a dyad. Gross et al's. (1958) major empirical foci were role consensus, role analysis, and the development of a language for role analysis. Their findings indicated that the degree of consensus between focal and counter positions in expectations was directly related to the degree to which his or her position had been formalized.

Expanding on this seminal research effort concerning role systems, Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) undertook an intensive study to determine the nature of role expectations connected with focal positions. Their research was much more comprehensive than the research of Gross et al. (1958). Kahn et al. included within their framework of focal person and counter person, considerations for

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<sup>3</sup> A leader in a focal position could be considered in terms of his or her relationship to another position or in terms of multiple relationships. Gross et al. (1958) refer to the former condition as a dyadic model and the latter as a position-centric model. For purposes herein the focus is on the dyadic model, not only on a single focal-counter relationship but on each focal-counter relationship within a supervisory group.

external factors emanating from the individual, the organization, and interpersonal factors. Katz and Kahn (1978) synthesized these multiple factors and declared that the role system was the major linkage between the individual and the organization. It is upon Katz and Kahn's (1978) and Gross et al. (1958) role theory framework of differentiated roles that Vertical Dyad Linkage (VDL) theory, the dyadic exchange between a leader and a member, has found its theoretical roots (Graen, 1976; Dansereau, Graen, & Haga, 1975; and Graen & Scandura, 1987).

### **Dyadic exchange relationships**

Vertical dyad linkage theory (VDL) draws on the role making of focal and counter persons through dyadic transactions (Graen, 1976; Graen & Scandura, 1987). This can be seen in Katz and Kahn's (1978) illustration of the exchange between role sender and focal person.<sup>4</sup> Graen (1976) defines the messages the role sender (leader) sends to the focal person (subordinate), and how the focal person interprets these messages in subsequent actions, as the role episode. The role making process was based upon the same mutual and fair exchange processes described above. For the role episode to be successful, each party must offer valuable investments and receive returns in a reasonably equitable or fair manner. The rules governing this process must also be compatible if the exchange is to be successful (Graen & Scandura, 1987).

Theoretical development of VDL rejects the premise of an "average leadership

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<sup>4</sup>For the remainder of this dissertation the focal person shall be the subordinate half of the dyad, as referred to by Graen (1976).

style" across supervisory units in favor of a dyadic approach. As such, constructs of interest must be measured about each member of the supervisory group, including the leader. Any variance in leader behavior will be shown to be smaller for each dyad and not viewed as error, as in the ALS model.

Dansereau et al. (1975) developed the first set of specific measures focusing on the dyadic relationship between the leader and each of his/her individual members. The constructs of initial interest described the perceptions of both the leader and the member regarding the amount and quality of attention received by a subordinate, a subordinate's ability to participate in decision making relative to his/her work, and a supervisor's sharing complete and accurate information with the subordinate. In order to adequately determine a dyadic exchange relationship it is necessary to show convergence on these matching reports. In other words, if item-level questions regarding the quality of an exchange or the amount of leadership attention are asked of the subordinate member, those same items should be responded to from the leader's perspective. This would indicate the amount of convergence (agreement), or lack thereof (differences), which exist between the leader and member with corresponding implications for various outcomes VDL is purported to predict (Dansereau et al., 1975).<sup>5</sup>

Much of the research subsequent to Dansereau et al. (1975) continued to

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<sup>5</sup>For an excellent discussion on agreement v. differences see Kozlowski and Hattrup (1992).

examine the same relationships with little change in technique. Around 1981 methodological problems began to appear. Katerberg and Hom (1981) questioned the appropriateness of between-dyads analysis and investigated the specifics of this problem using hierarchical regression analysis. Their research achieved a richer understanding of the error variance associated with "within" dyadic structures. Most of the relationships examined in this study clarified the need to treat the measurement and analysis of superior-subordinate relationships at the same level. VDL has been successful in differentiating supervisor-subordinate dyads, whereby the dyadic model allows for functional interdependencies between leader and subordinates (Dansereau et al., 1973; Graen et al., 1973; Graen & Scandura, 1987), the specifics of which will be discussed in the following chapter.

### **Social context**

Inextricably embedded in the concept of role systems, yet not specifically examined in the context of leader-member exchanges, are ideological values that help justify roles and group norms. Abstract as they are, shared values furnish a form of integration within the role system and can enhance or reduce the quality of the role episode (Katz & Kahn, 1978). Gross et al. (1958), England (1975), Smith and Peterson (1988), and Bass (1990) each expressed the importance of including values as a construct of interest to leadership researchers. Miles (1964, as cited in Bass, 1990, p.160) states that "...managers generally prefer and rate as more effective those subordinates whose attitudes and values were similar to their own."

Researchers in many domains of management theory have expressed the need to examine individual behaviors within their proper context. For leadership it is possible to separate the many different context factors into three distinct arenas; (1) the situational environment, e.g., characteristics of the task or characteristics of the subordinate (Bass, 1990); (2) the organizational environment, e.g., size, structure, and complexity (Ford, 1981); and (3) the social environment, e.g., cooperation, competitiveness, and individualism (Tjosvold, 1985). Values, a characteristic of the social environment, are embedded within the social interaction process (Hambrick & Brandon, 1988).

Earlier leadership researchers have maintained a situational approach by fitting the leader to the situation or the situation to the leader. Yukl (in Bass, 1990) has previously specified multiple leader behaviors that fit particular situations. Path-goal theory (House, 1971), Hersey and Blanchard's situational theory (1969), and Fiedler's least preferred co-worker (1964) are primary examples of situationally specific theories. These theories examined such things as task characteristics, subordinate character, and subordinate maturity, as general characteristics of the job or the individual which had a potential influencing effect on leader behavior.

Currently, the more common contextual factors that researchers have identified as potential constraints generally fall under the rubric of organizational moderators. These include the structure of the organization, size, and technology to name but a few (eg. Ford, 1981). Interestingly, both situational and organizational factors have



been said to act as substitutes for leader behavior and minimize the need for leader direction (Kerr & Jermier, 1978).

Social characteristics have also played a major role in the development of leadership research. These are usually indicative of the interactional process between organizational members and could substantially affect the exchange relationship between leader and member. Such constructs as leader power, member cooperation, and member competition have been considered at the individual level. Superiors who have the capacity to change important outcomes (high-power superiors) will render more aid to subordinates in a cooperative relationship than superiors who are in a competitive relationship (Tjosvold, 1985). Likewise, at the supervisory group level, the major moderating construct that has been studied is group cohesiveness. Highly cohesive groups are more likely to have leaders who exhibit more consideration of employees with resulting positive outcomes such as subordinate satisfaction and role clarity (Schriesheim, 1980).

Very little research has accounted for values as having a potential effect on leadership (Senger, 1971; England & Lee, 1974; and England, 1967). Although work-related values are currently experiencing a revival of interest as a direct effect in other domains of organizational research (see for example Chatman, 1988, O'Reilly, Chatman, & Caldwell, 1991, and Ravlin & Meglino, 1987), it is surprising that no studies could be found which have investigated the critical linkage of work related values to dyadic structures since, as mentioned above, they are crucial to role systems.

The major objective for including values in this research will be to expand the current knowledge base of leader-member exchange theory by taking into account the context in which leader-member exchanges evolve.

### **Purpose of research**

Because vertical dyad linkage theory (later renamed Leader-Member Exchange theory, LMX) has enjoyed a modicum of success in the empirical literature,<sup>6</sup> and little has been done to examine critical interpersonal context factors and their effects on leader-member exchange relationships. This research extends the boundaries of LMX theory to include the fundamental yet previously unaddressed constraint of individual work values and their potential effects on leader-member interactions.

Dienesch and Liden (1986) present a comprehensive review of the leader-member exchange literature. However, recent evolutions point out crucial weaknesses in the theory's development, and suggest future theoretical and empirical formulations. Problems of unidimensional models (models using the single independent variable of negotiating latitude), and unidirectional interactions (the leader toward the member or

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<sup>6</sup>The early development of vertical dyad linkage theory by Graen and associates focuses on the quality of the exchange relationship centered on the amount of negotiating latitude. Later conceptualizations by Dansereau and his associates drop the notion of a negotiated exchange due to scale difficulties (see for example Nachman, Dansereau, & Naughton, 1983). Further research has been conducted utilizing the construct of leadership attention. More about the specifics of this endeavor will be reported in the following chapter. For purposes remaining throughout this research presentation, vertical dyad linkage (VDL) and leader-member exchange (LMX) will be used interchangeably. Where necessary the constructs of negotiating latitude and leadership attention will be highlighted.

the member toward the leader), have prompted more research into multi-faceted and reciprocal behavior models. Additionally, their research efforts suggest that future endeavors be directed toward the contingent effects of environmental factors such as interpersonal values.

The focus here then is to address some of the issues Dienesch and Liden (1986) raise, based upon the belief that LMX theory is a much more parsimonious approach to describing leader behavior. It is critical to keep in mind the configurational problem inherent in the theoretical framework of dyadic structures. The configurational impact problem, the proper alignment of the unit of observation with the level of analysis, has been intimately tied to exchange relationships by Graen and Schiemann (1978).<sup>7</sup> That is, data representative of an individual, dyad, or work group can become misaligned with the level of analysis at which the data are analyzed (Markham, Dansereau, Alutto, & Dumas, 1983; Hunt, 1991). For example, a hypothesis concerning the effect of a leader's behavior on an individual's performance could not be utilized for making inferences about the overall performance of the

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<sup>7</sup> The configurational issue involves three crucial criteria; (1) *the misalignment of the focal unit of observation* (individual, dyad, or work group), (2) *the level of measurement to which the data are attached*, and (3) *the level of analysis to which the data are assigned* (Rousseau, 1985; Hunt, 1991). The unit, defined as "...the primary entity in terms of which data are analyzed..." (Haney, 1980) is the fundamental decision point which can severely affect any study's evaluation. The unit of observation is alluded to throughout this text, simply stated, it is the dyad which is of utmost interest. Researchers of leader-member exchange theory agree, the dyad is the most appropriate unit of study (Dienesch & Liden, 1986; Bass, 1990; Dansereau et al., 1975; Smith & Peterson, 1988).

group. Thus, a decision must be made whether this study should evolve around the individual, dyad, supervisory work unit, a higher level such as the department, or the entire organization. The specifics of this configurational problem will be discussed more thoroughly in the next chapter and in the Methods chapter. However, the initial indications dictate that findings would be expected to operate at the dyadic level, since that is this study's primary level of interest. Should it be found that this level of study does not meet the objectives of research, post-hoc analyses would be necessary to determine at which level the constructs are operating and where future research should be focused. For example, even though it is posited that personal values are operating as a function of the dyadic structure, this has not been previously tested. Research has investigated this issue either at the individual or a higher level of analysis (O'Rielly et al., 1991; Ravlin & Meglino, 1987).

### **Plan of Study**

This research study is divided into five chapters. The first chapter has outlined the general theme and theoretical domains of interest, specifically, the contingent effects of individual values on dyadic exchange relationships. Chapter Two develops a comprehensive model for understanding these relationships, and the empirical and theoretical implications necessary to consider interpersonal work values as fundamental and critical to leader-member exchange theory are detailed. Research hypotheses are developed along with the model of theoretical interest. Chapter Three presents the research methodology and instruments to be used to measure the constructs of interest.

A brief overview of the organization under study is included. Issues of level will also be discussed. Chapter Four, Results, will circumscribe the statistical findings and analyses conducted. Post-hoc analysis will be conducted if it should prove beneficial to the further understanding of any apparent cross-level occurrences. Finally, the last chapter will discuss the implications of the findings, from both scientific and pragmatic perspectives. Future research possibilities surrounding these issues will be advanced.

## CHAPTER 2

### **An Integrative Model of Leader-Member Exchange and Work Values**

The following chapter develops the theoretical model in four sections. Each section builds on the previous one and is designed to answer specific issues regarding the integration of leader-member exchange and work values. The first section reviews the primary literature behind leader-member exchange relationships. Here the emphasis is only on the nomological network of variables defined in this study as antecedent to the dyadic process. Accompanying hypotheses for this network of variables will be defined as relevant to the configurational problem. The second section of this chapter will discuss several consequences which have been examined in previous research in conjunction with leader-member exchange theory. The issue here is the determination of the effects of dyadic relationships on specific organizational outcomes. The third section presents the construct of work values and their importance for consideration as influences in organizational contexts. Individuals are believed to share a common set of values regarding work. This may be different from values held outside the workplace. A model aligning values with the exchange model that is a different approach from what has been considered thus far in the literature will be presented. The theoretical premise for this discussion relies on the idea that along with exchange relationships at a dyadic level there exists a value sharing

between a superior and subordinate. The final section deals with the issue of the effects on the specified outcomes as a result of integrating the models in the first and third sections. A general hypothesis can be drawn around the integrated model that hopefully will determine the kind of dyadic relationship that unfolds due to this integration.

### Leader-Member Exchanges

Leader-member exchange theory has its fundamental roots in a combined social exchange theory (Homans, 1958; Hollander, 1978 & Gibb, 1954) and role theory (Gross et al., 1958; Kahn et al., 1964; Graen, 1976; and Katz & Kahn, 1978). Social exchange theory explains how members in a group situation make mutual but fair exchanges in order to accomplish a task. Role theory parallels this approach but includes the processes of role execution. As conceptualized by Gross et al. (1958) social exchanges can occur in a dyadic format, either as a singular one-on-one relationship or as the exchanges of a single focal person with multiple counter persons.

The integration of these two fundamental ideas about interaction in leader-member combinations first occurred as an investigation of dysfunctional leadership styles (Graen et al., 1972). Graen and his colleagues determined that, "...the less ambiguously a member can describe his leader's behavior regarding how he performs his *bureaucratic role* of leader, the more accurately his description of his leaders' behavior regarding how he fulfills his *interpersonal role* as leader reflects the leader's

evaluation of his performance" (p. 233, italics in original).

Using the Leadership Behavior Description Questionnaire (LBDQ; Stogdill, 1974), Graen et al. (1972) hypothesized that intergroup relationships can be collapsed into leader-member exchanges. They found that initiating structure moderated any consideration of behavior by the leader about the member's performance. Noteworthy in this study is the use of the LBDQ, an instrument linked to the traditional average leadership style (ALS) described in Chapter 1. Graen et al. (1972) were able to show that alternative conceptualizations of leader-member interactions should be considered. This development, contrary to traditional leadership theory and practice, has been fundamental to the concept of leaders differentiating between members within supervisory groups.

Graen and his colleagues, Dansereau et al. (1973), began the work of defining what an alternative to the ALS model might be. In their study, Dansereau et al. (1973) identified this alternative as the "Vertical Dyad Linkage" (VDL) approach. This approach, as described in Chapter 1, rejects an average leadership style in favor of an exchange relationship approach between a leader and his or her subordinates.

With VDL several assumptions are made regarding the leader's behavior. First, a leader's behavior is dependent upon each individual relationship with subordinates in the supervisory group. This means that the leader-member exchange relationship approach is more descriptive than a study of how an average style of leadership might operate across all supervisory group members. Second, any



supervisory group is heterogeneous about member perceptions of important functions of the exchange relationship. This is not to say that the group is so heterogeneous that no variance can be accounted for. Rather, the implication is that the leader differentiates between subordinates in the day-to-day exchange relationship. The Dansereau et al. (1973) study indicates that previous ALS studies, which considered deviations in member's perceptions as error a-priori, were deficient and that within-unit "error" is a valid concern and should be analyzed.

The final key assumption that the Dansereau et al. (1973) research makes is that the member's perceptions about leader behavior should be compared to the leader's report on subordinate performance. The ground work was laid for recognition that leader and member reports should be compared on the same construct (Cf. Bass & Yammarino, 1991).

Thus far, this discussion has only reviewed the beginnings of LMX theory, because the initial studies utilized measures that are less frequently seen in current research efforts. These earlier instruments come from a theoretical base that promotes the average leadership style of behavior. Once it had been established that differentiated relationships can occur within supervisory groups, theoretical development of leader-member exchanges moved forward to examine specific antecedents which would describe these dyadic exchanges.

**A unidimensional LMX conceptualization.** The first major study that specifically deals with the concept of leader-member exchanges was conducted by

Dansereau et al. (1975). They built on Jacobs (1970) earlier work concerning supervision versus leadership behavior. Dansereau et al. conceptualized the use of a single independent variable, negotiating latitude, and dichotomized it on the basis of Jacobs' (1970) framework. Negotiating latitude (NL) was initially a two item scale referring to the amount of latitude the leader extends to each subordinate with regard to role development. Upon this variable anything else was dependent: the quality of superior exchange (a multidimensional construct which examines the amount of leadership attention given to the member), the amount of support accorded to each member, and a twenty-one item measure that accounts for the different kinds of problems that can arise in a dyadic relationship (Liden & Graen, 1980). The general hypothesis stated that NL produces a differentiated relationship between the leader and member along the lines of supervision (low NL) and leadership relations (hi NL) (Jacobs, 1970). The dichotomization of negotiating latitude became known as the "In/Out" group dichotomy, whereby, under certain circumstances, the leader will treat members with "supervision" behavior while treating other members with "leadership" behavior. Dansereau et al. (1975) found that a differentiating process did occur, lending support toward the hypothesized relationships.

Negotiating latitude as a construct developed erratically as indicated by its many different formulations and the subsequent renaming as the quality of exchange relationship (Graen & Schiemann, 1978). The Dansereau et al. (1975) formulation of the NL instrument consisted of only two items, while subsequent use has involved a

four item measure (Graen & Schiemann, 1978 and Liden & Graen, 1980), a five item measure (Graen et al., 1982) and even larger item scale development (see for example Seers & Graen, 1984; Wakabayashi & Graen, 1984; Graen, Novak & Sommerkamp, 1982; Scandura & Graen, 1984; Scandura, Graen, & Novak, 1986; Wayne & Ferris, 1990). In most of the studies the NL construct was dichotomized along a posited IN/OUT group scenario.<sup>8</sup>

Further use of the NL instrument to measure LMX has been decried by Dienesch and Liden (1986) and Nachman et al.(1983) as being psychometrically unsound and/or invalid. Even though problems with NL construct developed early, no one has given cause for dropping NL as a legitimate construct for measuring leader-member exchanges. But, negotiating latitude cannot possibly be the end all to be all to LMX since it has been found to be useful as both a predictor and a criterion LMX measure. Future research should clearly delineate among the measures for leader-member exchanges and outcome measures adding measures of specific leader behavior (Yukl & Van Fleet, 1993).

Following Dienesch and Liden's (1986) suggestion, this research does away with a dichotomized quality of exchange (NL) conceptualization and concentrates on the use of a continuous measure. Further refinements to the dimensionality of the LMX construct are examined with the addition of specific behavioral measures of

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<sup>8</sup> Quality of exchange (NL) has also appeared in a trichotomized (high, medium, and low) format (Scandura and Graen, 1984).

superior loyalty and liking for the subordinate and the amount of attention paid to subordinates by the leader, as discussed below.

**A multidimensional LMX conceptualization.** Dienesch and Liden (1986) have emphasized the need for a multidimensional approach to leader-member exchange theory. They suggested, based on the original theoretical premises of social exchange and role theories, that of the constructs already studied, mutual contribution, mutual loyalty, and mutual liking are preferred measures to expand the dimensionality of LMX.

***Loyalty and liking.*** The dual concepts of loyalty and liking hold that as the leader and subordinate come closer together in their agreement on the amount of loyalty and liking shown by the superior the more likely the subordinate will exhibit positive behaviors. These behaviors can show up in greater commitment, less turnover, and/or greater job satisfaction and performance. It would be most unlikely that if the subordinate perceives the superior as not liking him/her, or could not count on the superior to back up the subordinate when needed, that the subordinate would continue to perceive the exchange relationship as being mutually beneficial. This would be over and above any directive or participative behavior exerted by the leader; the relationship depends on these exchange attributes.

Empirical research on Dienesch and Liden's (1986) concept of a multi-dimensional LMX theory has not been prevalent. Atwater (1988) examined 98 triads (boss - supervisor - subordinate) across dimensions of superior/subordinate

expectations, upward loyalty, and trust. She found that subordinate loyalty, expectations, and trust were all predictors of a "supportive supervisory behavior"; subordinate loyalty was not shown to predict "demanding supervisory behavior". Other dimensions (personal and job characteristics) were only marginally predictive of "supportive supervisory behavior." Atwater's conclusions were that constructs of interpersonal trust and subordinate loyalty are enduring characteristics and should be included in future superior-subordinate relationships. In an earlier study Kavanagh (1975), however, had been unable to find any kind of relationship between interpersonal trust and preferred leader behavior for a student sample and their ideal leader, while a manager's sample showed mixed results. These mixed results on two samples, students and managers, provided no discernable insight into the utility of using interpersonal trust as an LMX construct.

Dockery and Steiner (1990), in a lab study, using matching leader-member reports, studied the impact of superior liking of the subordinate on initiating an exchange process with that subordinate. Using both correlational analysis and difference score regression analysis, Dockery and Steiner supported that liking (assessed from both the leader's and member's perspective) would significantly influence the quality of the exchange relationship. Interestingly, this study utilizes a measure of "Quality of LMX" from Graen and Scandura (1987) as one of the dependent measures. This is contrary to its traditional usage as an independent measure; Dockery and Steiner make no other outcome predictions.

In another lab study, Dienesch (1986) examined the specifics of the Dienesch and Liden (1986) model. Dienesch's factor analytical results were only somewhat supportive of the three dimensional model, liking, competence, and loyalty. His support came from the development of two new LMX scales of 20 attribution/expectation items and 14 behavioral items. From the first analysis of the 20 attribution-expectation items, two first order factors were derived. The first factor appeared representative of a combined loyalty/contribution dimension (labeled support), and the second representative of affect. Therefore, based on this new scale, support for the three dimensional model was somewhat mixed. Using the same factor analysis techniques as before, Dienesch was able to extract a three dimensional model from the 14 behavioral items along the lines of the hypothesized dimensions of liking, competence, and loyalty. Dienesch concluded that support for a unidimensional construct for explaining leader-member exchanges is unjustified based on his findings. He stated that researchers should continue to explore a multidimensional conceptualization.

Competence. Dienesch and Liden (1986) identified mutual contribution as a primary underlying construct to the exchange relationship. They defined mutual contribution as "...[the] perception of the amount, direction, and quality of work-oriented activity..." Dienesch and Liden have further suggested that competence underlies this construct of contribution.

Wagner and Morse (1975) developed and validated a measure of perceived

competence defined as the "...individual's feelings and confidence about his abilities in mastering an organizational and work setting." For our purposes, the individual's perceived level for engaging and solving problems is the operational basis of the competence construct, the second factor of Wagner and Morse's 23 item scale. Wagner and Morse indicated sufficient support for both internal reliability and predictive validity.

Another study by Snyder and Morris (1978) confirmed the factor structure for three of the four Wagner and Morse (1975 ) factors: global competence, influence, and task knowledge/problem solving. A fourth factor, confidence, was dropped from consideration due to a very low eigen value.

Snyder and Bruning (1985), extending an earlier study by Kim and Organ (1982), examined the convergence between leader and member perceptions of competence and role stress to explain the VDL process. They utilized the 23 item Wagner and Morse (1975) competence scale and a four item VDL scale from Cashman (1975). Role conflict and role clarity were measured with a scale developed by Rizzo, House, and Lirtzman (1970).

This study is noteworthy in that it utilized the full Wagner and Morse (1975) competence scale rather than the single item competence measure used by Kim and Organ (1982), Senger (1971), and Price and Garland (1981). Additionally, it is one of the few to consider the effects of convergence of measurement on constructs pertaining to the leader-member exchange.

Snyder and Bruning's (1985) results indicated significant support for the hypothesis that subordinate perceived competence is a valid predictor of a vertical dyad linkage. They also suggested the need to measure the convergence of similar measures from both sides of the dyad. Their analysis determined that both high and low levels of competence on matched leader and member reports are related with higher quality relationships.

*Leadership attention.* One particular construct, originally specified in Dansereau et al. (1975) leader-member formulation, has seen only minimal consideration compared to negotiating latitude (NL). Leadership attention is defined as the amount of attention the leader gives to individual subordinates. The perceived amount of attention given by the superior to his or her subordinate individually could have a major impact on the organizationally related behaviors exhibited by the subordinate. Leadership attention is an overt behavior by the superior and when considered in conjunction with the previous dimensions of loyalty and liking should manifest itself in positive subordinate behavior. This would be exhibited even more powerfully the closer in agreement the superior and the subordinate are on this network of variables.

Dansereau et al. (1975) indicated that the level of leadership attention shown to a subordinate was a consequence of the amount of received negotiating latitude. Typically, leadership attention includes not only the "amount" of perceived attention given, but also other behaviors such as decision participation, information and



feedback, confidence, and assurances given by the superior. According to Dansereau et al. (1975), subordinates perceived that the NL out-group received less attention while the NL in-group received the most attention. Dansereau et al. also collected a superior's self-report regarding how much attention the superior perceived each subordinate needed. In opposition to what was expected, the leaders did not report a subordinate's needs in the same way the subordinate saw them. The NL in-group subordinates were perceived by their superior as needing more attention than the NL out-group subordinates. It is possible that the superiors' interpretation of the construct of leadership attention was partially flawed. For example, since subordinates who received higher degrees of attention from the superior were a part of the NL in-group, the superior could have been giving them more attention simply because of their in-group membership. Another possibility is that the leader might be reacting based on a similar-to-me (Wexley, Alexander, Greenwalt, & Couch, 1980) basis in which the leader, seeing the in-group members as having similar qualities as himself, would perceive the amount of attention as a natural extension of the relationship.

In a study conducted by Cashman, Dansereau, Graen, and Haga (1976), leadership attention was again used as a consequence of the amount of NL given to the subordinates. Utilizing the same measures as Dansereau et al. (1975), these researchers put an interesting twist on LMX by using a member-leader-superior triad. Their results indicated that members who reported to out- leaders received lower attention than members who reported to in- leaders.

Three additional studies, which also utilized the leadership attention construct, addressed the configurational problem mentioned in Chapter 1. Markham et al. (1983), Dansereau et al. (1984), and Yammarino and Dubinsky, (1992) are each concerned with the convergence of opinions of leadership attention between the superior and subordinate on matching reports. The importance of these three studies does not lay in the traditional predictor/outcome approach. Rather, it resides in the building of a nomological network of variables relevant to the appropriate level of analysis (Markham, Murry, & Scott, 1992). In each of these studies the association between the network of variables and the level of analysis are presented as an alternative to traditional analyses of leader-member exchange theory. In each study, the results indicate the possibility of multiple inferences that can be made about the network of variables, revealing that leader-member exchange processes are more dynamic than previously believed. The substance of these inferences is detailed in the next sub-section, "Configuration effects and the initial model".

*Superior-subordinate satisfaction.* The final construct of interest is inextricably tied to leadership. The degree to which a subordinate perceives that the superior treats him or her well in various job related aspects is indicative of the level of perceived satisfaction the subordinate holds toward the superior (Scarpello & Vandenberg, 1987; Deluga & Perry, 1991). Equally important are the superior's reports on how well they believe they treat a subordinate.

Most studies of this construct have utilized some component of the Job

Descriptive Survey (JDS; Hackman & Oldham, 1975) or a portion of the Role Orientation Index (ROI; Graen et al., 1972) regarding the level of satisfaction with the supervisor. Once again, as was the case for the earlier constructs examined, many of these studies have utilized satisfaction with the supervisor as a dependent variable (Scandura & Graen, 1984; Seers & Graen, 1984; and Vecchio & Gobdel, 1984). Other researchers have examined satisfaction using partial correlations to determine the best set of predictors (Vecchio, 1985; Ferris, 1985; Vecchio, Griffeth, & Hom, 1986; Graen et al., 1982). Still others have examined supervisor satisfaction through the configurational approach previously mentioned (Markham et al., 1983; Yammarino, 1990; Yammarino & Bass, 1990; and Katerberg & Hom, 1981).

Yammarino (1990) focused on both individual- and group-directed leader behavior measures. Using a single item measure of satisfaction with supervisor, Yammarino found that individual differences were the most plausible explanation for respondents perceptions. Further, satisfaction with supervisor was found to be associated with both individual- and group-directed leader consideration behavior, but only with group-directed initiating structure behavior. Yammarino suggested that these results imply that respondents answer as individuals regardless of group membership. Yammarino and Bass (1990), in a similar study with Naval Officers, found that individual differences were primarily the most likely explanation for the relationships with satisfaction with supervisor.

Generally, these studies have indicated the need to assess supervisor

satisfaction as being integral to a conceptualization of LMX. The multidimensional framework called for here relies on the interdependency of these variables operating as nomological network. Thus, the combined predictability of the network becomes crucial in defining subordinate outcome behavior. Additionally, the impact of this nomological net is best examined within the dyad and can only be described within this configuration (see Figure 1).<sup>9</sup>

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Insert Figure 1 about here

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**Configuration effects and the initial model.** The previous discussion has introduced the idea that leader-member exchange theory must be examined and measured at the dyadic level to obtain the proper source of explained variance. Many researchers have attempted to address this issue. Here the intention is to give an overview of the problems of configuration, footnoted in Chapter One, from which initial relationships and hypotheses can be drawn. These problems start with the initial data collected by researchers.

Yukl and Van Fleet (1993) argued there is so much ambiguity in the data researchers collect regarding leader behavior, that it is nearly impossible to interpret the results. Much of the problem stems from improper aggregation of data to a different and higher level of analysis, such as the group or organizational level.

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<sup>9</sup> All Figures can be found in Appendix B.

Aggregation effects (Roberts & Burstein, 1980) create problems of interpretation such that any statistical analysis of these data is useless for drawing inferences about individual behavior (Markham et al., 1983). Indeed, such improper inferences can create what Robinson (1950) has termed an "ecological fallacy," "...the inferential errors associated with extrapolating from aggregated data back to the individual response from which these data originally derive" (Rousseau, 1985, p.7). To avoid this difficulty it is paramount that the unit of analysis specified by the theory be aligned with the statistical unit of analysis. (Markham et al., 1983).

*Conceptualization of configurations.* Dansereau et al. (1984) has developed a framework for both the conceptual and empirical study of theories. The issue of the proper level of data analysis is quite different from the unit of analysis. Some researchers have confused the two by using them interchangeably. Level of analysis, as used in this study, has been defined by Rousseau (1985) as "...the unit to which the data are assigned for hypothesis testing and statistical analysis" (p.4). These various levels, as defined by Dansereau et al. (1984) are: individual, dyad, group, and collectivity. The conceptual and empirical level of interest for this study remains at the dyadic level of analysis, the appropriate level upon which to examine exchange relationships.

There are four units of analysis (conditions) upon which a researcher can represent and interpret data according to the Dansereau et al. (1984) framework: wholes (between), parts (within), equivocal, and null. Dansereau et al. (1984)

distinguishes the first two conditions as the differences in focus on between-unit effects and within-unit effects respectively.

A wholes condition (between-unit source of significance) reflects a between-unit focus and no significant within-unit focus, whereby the leader makes no discrimination among his or her subordinates and treats all subordinates similarly, which is essentially a group level effect. Any differences occurring between-units are considered systematic, while differences which occur within-unit are considered as error. Likewise, the opposite can be true. In a within-unit focus with no differences between-units (a parts condition), a leader differentiates among his/her subordinates. Differences under this condition (within-unit) are considered as systematic one relative to the other, while differences which occur between-units are considered as error (Yammarino & Dubinsky, 1992).

In situations where neither of the above conditions are met, it is plausible that valid differences are systematic at both between-unit and within-unit, and a wholes or parts condition is not discernable. Therefore, the entity of interest cannot substantiate any understanding of the constructs of interest, and other levels of analysis should be examined. This condition is called the *equivocal condition* (Dansereau et al., 1984).

In the fourth and final condition, no primary focus exists at the specified level of interest and neither wholes nor parts are relevant. Thus, no systematic differences are occurring. This has been termed by Dansereau et al. (1984) as the *null condition*, and again researchers would do best to examine an alternative level of analysis for a

clearer understanding of their a-priori assumptions.

Conceptualization of dyads. In order to better understand a presentation on conceptualizing dyadic effects, it is useful to explain the different plausible dyad relationships. The following explanation relies heavily on the work of Yammarino and Dubinsky (1992) and their classification system reproduced here (see Figure 2).

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Insert Figure 2 about here

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Given that this research study focuses upon exchange relationships between a leader and a member, there are three different dyad viewpoints to consider. The discussion thus far has focused on the differentiation by the leader of each subordinate within a supervisory group. This first dyadic conceptual relationship has been designated the leader-member exchange approach in Figure 2 whereby the supervisor is directly linked to each subordinate in a one-to-one relationship. This case is marked by agreement between the leader and the member within each dyad, and each dyad differs within the supervisory group. Yammarino and Dubinsky (1992) argued that for there to be an ideal dyadic exchange, a whole (between) dyad effect and no group (within) effect whereby the leader controls each relationship one relative to the other, would need to exist simultaneously. This is representative of the original formulation of leader-member exchange put forth by Dansereau et al. (1975) and Graen et al. (1982).

The second dyadic conceptual focus in Figure 2 is on the dyad relationship as an isolated instance that is not relevant to any supervisory group. Here the relationship between the leader and the member is of a balanced nature, i.e., both equitable and made up of individuals who share similar natures (Adams, 1965; Wexley, et al., 1980; Pulakos & Wexley, 1983), or it relies on the use of "idiosyncratic credits" to balance the relationship (Hollander, 1958). These assumptions are based on the fact that perceptions are more important than actual equity in such relationships. Yammarino and Dubinsky (1992) refer to this as the *balanced interpersonal relationships* approach.

From a levels perspective, a balanced relationship is indicative of agreement occurring within each leader-member dyad and of differences occurring between dyads. Under this condition the group becomes irrelevant, and any between dyad effect cannot aggregate to the group, thus indicating an equivocal condition. Referring again to Figure 1, wholes (between unit effects) are indicated at the dyad level, and the higher group level is equivocal.

For the last dyad inferential condition in Figure 2 the relationship is unbalanced, inequitable to either party. According to this viewpoint there are differences between the members of an exchange relationship while the group still remains irrelevant. For this situation there are differences within the dyad, and no differences between dyads. As was the case for the second situation, the dyad score cannot aggregate to the group level due to the group's irrelevance. This condition is



illustrated as an *unbalanced interpersonal relationships* approach with parts (within dyad effects) configured at the dyad level and a null configuration at the group level (Yammarino & Dubinsky, 1992).<sup>10</sup>

Two other conditions worthy of mention that are posited in the leadership literature, but are non-dyadic, are: the leader-member relationship, founded entirely on implicit theories based primarily on the processing of information by individuals (Rush, Thomas, & Lord, 1977), attributional relationships (Phillips & Lord, 1981), and cognitive categorizations (Lord, Foti, & DeVader, 1984). Yammarino and Dubinsky (1992) classify these into the situation referred to as the *information processing* approach.

Under information processing neither dyads nor groups are the focus and individual differences become the relevant level of analysis. This would indicate that only the differences found in individual behaviors would explain the leaders or members behavior and perceptions. This has been codified in Figure 1 as an equivocal condition at both the dyad and group levels, making both inconsequential.

In the second non-dyadic condition, the internal environment of the organization is such that neither the individual, the dyad, nor the group matters in the

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<sup>10</sup> As stated earlier, the focus of this research endeavor is on the "ideal" dyad condition as illustrated by Yammarino and Dubinsky (1992). The other conditions reflect alternative inferences which can be concluded when ideal dyads are not found. For an interesting expansion on this idea see Williams, Podsakoff, and Huber (1992). The remaining conditions in Table 1 are alternative multi-level inferences which could possibly explain the findings, these are not considered beyond this illustration for this study.

functioning of leader behaviors. Yammarino and Dubinsky (1992) regard this situation as a *non-leadership* phenomena whereby higher levels, such as the department or the organization, act as a substitute for leader behavior (Kerr & Jermier, 1978). The individual, dyad, or group is irrelevant. This is represented by a set of conditions whereby the dyad and group are null and neither is relevant to explaining leader behavior.

The final condition that has already been discussed as the *average leadership style* is also illustrated in Figure 1. This condition represents the leader as treating all supervisory group members similarly, with any resulting differences occurring between groups. Yammarino and Dubinsky (1992) state that effects which are occurring between dyads will in all likelihood aggregate to the group level.

The independent constructs of importance to this study have been presented in the first part of this chapter. The first dimension, negotiating latitude, has been shown to be a prominent construct of interest in leader-member exchange theory from the theory's inception (Dansereau et al., 1975). Even though problems exist in using the NL construct, there has not been consistent enough research to rule out its use as a valid indicator of leader-member exchange. Therefore, NL will remain an active construct of interest in the present study. Leadership attention has also been shown to be a primary construct of interest in LMX theory. It is included in the present study because much of the earlier research appears to have discounted its importance.

Following the research efforts of Dienesch (1986) and Brownlee (1991), the

dimensions of loyalty, liking, and competence are included to respond to the argument made by Dienesch and Liden (1986) and others of a multidimensional framework. Additionally, the multidimensionality of leader-member exchange theory is further enhanced by the inclusion of supervisor satisfaction. Supervisor satisfaction has long been connected with leadership studies and in particular with LMX theory. It has been shown previously that there is a positive relationship between level of supervisor satisfaction and quality of leader-member exchange.

Utilizing the framework established by Yammarino and Dubinsky (1992), and a configurational approach, it is possible to formulate hypotheses as to the appropriateness of each component of the leader-member network at the dyad level. Unless confirmed at the focus level of the dyad, specificity of the construct as a integral part of the nomological network would be impossible. The fundamental question which is being asked, does the network of variables in the leader member model operate at the dyadic level?

**Hypotheses.** The first step is to explain how the network of independent variables is expected to vary as part of the exchange relationship. Leadership is best regarded as a one-on-one relationship between leader and subordinates. For an exchange relationship to be identified it must be shown that the dyads clearly partition the variance and there is a significant and positive relationship between the entire network of variables. Given this framework, and the framework shown in Figure 1, it is therefore possible to develop arguable hypotheses for the "ideal" dyad level of

analysis:

**H<sub>1a</sub>:** There will be a significant difference between dyads (and not within) on each independent measure of negotiating latitude, leadership attention, leader-subordinate satisfaction, loyalty, liking, and competence.

In order to confirm that inferences can be made at the "ideal" dyad level of analysis it is necessary to test the hypothesis that differences are not occurring at a higher level of analysis. This is readily achieved by the following:

**H<sub>1b</sub>:** There will be *no* significant differences between supervisory groups on averaged scores of negotiating latitude, leadership attention, leader-subordinate satisfaction, loyalty, liking, and competence.

The second step is to describe the relationship between the network of independent variables and how they covary. In order that a clear distinction can be made at the "ideal" dyad level of analysis it is imperative that there be significant covariation between the network of independent variables and *not* within, at the dyad level of analysis. Following the process outlined above, a covariation hypothesis must be drawn in support of the variation established in H1a and H1b:

**H<sub>2</sub>:** Dyads which are high on one set of between-dyad component correlations for any one of the independent variables will also be high on each of the remaining measures for independent variables.

### **Outcome Measures**

Previous LMX criterion measures can be broken into three major streams: (1) those that are the consequence of the single predictor of negotiating latitude, either

dichotomized or trichotomized (e.g. Dansereau et al., 1975); (2) those that are for the development of LMX theory, i.e., deterministic of the best predictor/criterion arrangement (Graen et al., 1982); and (3) those that have been utilized to demonstrate a methodology as opposed to examining hard criterion relationships (e.g. Nachman et al., 1983).

These varied ways of examining the LMX predictor/criterion relationship have mostly resulted in mixed findings (Vecchio et al., 1986). Of these findings, turnover, performance, and job satisfaction are the most studied consequences of LMX. It is believed that the special attention a leader provides to his/her subordinates will result in such returns from the subordinate as better performance and reduced propensity to quit. If this is the case, exchange relationships should predict relevant outcomes.

**Turnover and turnover intentions.** Turnover is by far the most researched outcome next to job satisfaction. Researchers have examined voluntary and involuntary turnover of actual quits (Graen et al., 1982; Vecchio, 1985; Ferris, 1985; Vecchio et al., 1986), as well as behavioral intentions to quit (Vecchio & Gobdel, 1984). Any intentions a subordinate might have for leaving the organization may be strongly related to the relationship he/she has with his/her superior. Should this relationship be an adversarial one, it is most likely that the subordinate will take actions toward alleviating any stress related to the relationship. One such behavior is separation from the organization.

Three of the four actual quit studies are replications of the Graen et al. (1982)

study. In the original Graen et al. (1982) study, the findings were very supportive of LMX being a better predictor of turnover than ALS. For two of the studies which followed as replications, Vecchio (1985) and Vecchio et al. (1986), findings were not supportive of any component (LMX trichotomized) analyses that Graen et al. (1982) previously found. In both Vecchio studies non-significant results were obtained.

The third replication (Ferris, 1985) would initially appear to agree with the Vecchio studies. Yet, subsequent analysis of the data from a configurational perspective revealed potential masking effects when one accounts fully for the differences in the between-unit and within-unit correlations. After examining these differences, Ferris (1985) found partial support that LMX is a stronger predictor of actual turnover than ALS. From a configurational viewpoint an individual level effect best explained the predicted relationship.

From a different perspective, Vecchio and Gobdel (1984) examined turnover from a behavioral intentions viewpoint. They hypothesized that high negotiating latitude would be associated inversely with intention to quit. Operationally, intention to quit has been depicted as a useful antecedent to actual quitting, particularly in studies which are of a cross-sectional nature. Vecchio and Gobdel indeed found that intention to quit was inversely and significantly correlated to negotiating latitude even though no significant contrasts between NL sub-groups (low, medium, high) were reported. Similar findings have been reported by Brownlee (1991) who found that higher NL individuals with high levels of competence have higher intentions to stay

with the organization.

**Satisfaction.** Satisfaction with job, satisfaction with work, and satisfaction with the member of the supervisory unit are all outcomes which have interested LMX researchers. Equally as popular a criterion as turnover, job satisfaction has been a key affective response studied in connection with individual behaviors. The belief is that if an individual exhibits positive behavior on the job then he/she will in turn display higher levels of job satisfaction. The same would hold true in a dyadic relationship. The more positive the attitudes of the subordinate convergent with the leader the more likely the subordinate will express higher attitudes of job satisfaction.

Rosse and Kraut (1983) examined job satisfaction and found a significant and strong relationship to member negotiating latitude. This is similar to results of other studies which have utilized correlational analysis to determine relationships with job satisfaction (Vecchio, 1985; Vecchio et al., 1986). Both Liden and Graen (1980) and Vecchio and Gobdel (1984) found mixed results for job satisfaction as a consequence of negotiating latitude when using either a one-way ANOVA or a multivariate approach (MANOVA). Seers and Graen (1984) also found significant results using quality of LMX as a predictor. Finally, studies which have addressed the configurational problem (Brownlee, 1991) have also found strong significant results for dyads higher on NL and competence to be higher on overall job satisfaction.

**Performance outcomes.** Different types of measures have been used to determine a relationship with LMX and performance outcomes. Supervisor's

"Employee Rating Scale" as a measure of job performance (Scandura & Graen, 1984; Liden & Graen, 1980), objective measures of productivity quantity and productivity quality (Scandura & Graen, 1984), self-reported job performance (Schriesheim, 1980), and performance appraisal ratings (Pulakos & Wexley, 1983), have each been addressed as potential consequences of leader-member exchange. Dansereau et al. (1984) set the tone upon which performance as an outcome is best represented. They addressed the issue through an exchange of investments and returns between the superior and subordinate, a form of an equity model. As each leader or member invests in the other, such as in the form of expressed loyalty and liking, it is expected that the receiver of this investment must return in kind. The return then becomes the investment for that individual and thus continues the reciprocal relationship. A popular measure of the return used in this example has been subordinate performance. If the cycle is interrupted, one manifestation of the inequity would be in the form of lower performance by the subordinate.

Scandura and Graen (1984) measured subjective job performance from a sample taken from a large governmental institution, but were unable to show significant gains in performance for initially low versus high LMX groups after LMX training effects. Their rationale for the lack of significant gains is a time lag supervisors experienced in receiving production information. On the other hand, in a similar study, Liden and Graen's (1980) measure of subjective job performance in a university environment was able to show significant effects for predicting future job



performance. Studies using objective measures of job performance have produced more favorable results. Scandura and Graen (1984) also collected an objective quantity and quality measure of performance on a task and found a significant gain after LMX training for the objective quantity measure, but not the objective quality measure. This is in direct contrast to their subjective measure discussed above. Schriesheim (1980) was able to significantly support the moderating effects of cohesiveness on consideration in leader behavior for self-rated performance. On the other hand, she was unable to support the hypothesis that cohesiveness as a moderator would negatively affect the relationship between initiating leader behavior and self-rated performance.

Pulakos and Wexley (1983), in one of the few studies which examine the convergence between superior and subordinate measures, used performance appraisal ratings as an outcome of leader behaviors. Their study of 115 dyads revealed two significant results: (1) the convergence hypothesis can generalize to the field, and (2) significant main effects of subordinates' perceived similarity produced significantly higher performance ratings. This is an important finding concerning the effects on outcomes when dyad members perceive convergence on independent measures, and should be considered in future research.

Additionally, important information regarding an individual's satisfaction with his or her level of performance can be obtained by comparing a subordinate's perception of this to the superior's perception. This comparison could lead to

information concerning whether leader's evaluations of member performance are influenced by group membership or whether there is true differentiation within groups.

Only two studies were found that investigated the relevance of performance satisfaction in leader-member exchange processes (Yammarino, Dubinsky, & Hartley, 1987; Yammarino & Dubinsky, 1992). Each of these studies was conducted within a framework for determining the proper matching of the unit of analysis with the level of analysis. Even though satisfaction with performance was measured with single item scales in each of these studies, Yammarino and his colleagues demonstrated how different inferences regarding performance can be drawn when one looks beyond the traditional approaches to leadership behavior. For example, in the first study (Yammarino et al., 1987) inferences regarding group or individual effects on perceived satisfaction with performance are equivocal, i.e., superiors and subordinates independently rated performance and were not influenced by supervisory group membership. Likewise, Yammarino and Dubinsky (1992) were unable to make inferences at either the dyad or group level and concluded that individual differences were the most likely conclusion. It should be pointed out that these studies used the same measure with similar samples and therefore individual effects across studies would not be surprising. What is important and relevant to this study are the inferences made at the dyad level in the second study. Yammarino et al. (1987) were unable to make explicit inferences to the superior-subordinate dyad and so further research is needed regarding performance as an appropriate criterion of dyadic

relationships.

**Commitment.** Commitment to the organization has long been thought to be a critical consequence of individual behavior, yet it is most underutilized as a criterion of dyadic exchange relationships. Continuing with the investment/return model expressed by Dansereau et al. (1984), it would seem a natural consequence that if the cycle is interrupted that the subordinate would be less committed to the relationship and ultimately to the organization. Using this conceptualization, the LMX theory can be expanded. There is reason to believe that commitment to the organization is a viable and useful consequence of leader-member exchange relationships.

Two studies, Duchon, Green, and Taber (1986) and Nystrom (1990) found strong support for leader-member exchanges predicting the level of commitment an individual has for a particular organization. Using different measures for LMX, one study used a continuous scale while the other utilized a dichotomous measure. Each study utilized the same commitment measure with multiple regression analysis and arrived at the same conclusions, that organizational commitment was positively related to LMX and is a viable extension to the LMX theory.

Given the above set of outcomes are proven to be consequential for positive leader-member relationships, then it can be established that these outcomes form a useful network for studying leader-member behavior. To be able to establish a network back to leader-member relationships it must first be established that the nomological network of outcomes is operating on the same level of inference as the

antecedent network.

**Hypotheses.** Job satisfaction, performance satisfaction, and turnover intentions were each chosen as important consequences of LMX because of their previous use as relevant outcomes in the LMX literature and previous mixed findings. Organizational commitment gives a viable expansion and potential causal connection with LMX measures (Nystrom, 1990). It should be noted although that these outcomes are by no means representative of the full range of possible outcomes and other researchers would most likely choose a different network of consequences to be tested.

Using the same configurational approach previously to explain the relationships between the independent measures, similar hypotheses can be drawn regarding the outcome variables. In order to confirm that inferences can be made at the "ideal" dyad level of analysis it will be necessary to test the hypothesis that differences are not occurring at the group level of analysis. Since ideal dyadic data will not be collected, inferences will be made down to the dyad level by elimination of the group level as the active level of analysis (see Figure 3).

**H<sub>3</sub>:** There will be *no* significant differences between supervisory groups on averaged scores of turnover intentions, commitment, job satisfaction, and performance satisfaction.

From a theoretical perspective it may not make sense to speculate as to the covariation amongst the dependent measures. As was mentioned earlier, the results of

the relevant studies have been mixed as to the predictive nature of leader-member relationships. The broader literature regarding each of the dependent constructs reflects an even larger bag of mixed results. For this reason a covariation hypothesis, similar to before on the above dependent measures will be abandoned from further consideration.

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Insert Figure 3 about here

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### **Interpersonal Work Values**

In the first chapter the importance of interpersonal work values for dyadic exchanges was established. Interpersonal values have been best described as both directional indicators for human actions of enduring consequences (Warrier, 1982) and as individual "capability" variables. Consequently research into the influences of values within organizations has been minimal, with even less in a leadership context (Hunt, 1991). What support exists in leadership research either treats values as a direct effect on a leader's decision making abilities (e.g. England, 1967) or as an indirect effect whereby values influence a leader's overall perceptions (Ravlin & Meglino, 1987). Meglino, Ravlin, and Adkins (1989; 1992) found significant congruence on values between superiors and subordinates and this in turn was significantly related to performance outcomes, employee satisfaction and commitment.

With most of the existing support being for direct effects of values on

outcomes measures, there has been no attempt to examine the effects of value systems on the leader-member exchange process. Scheibe (1970) states that values must be examined within the context of social behavior, and it is within role theory that researchers have found the appropriate means for the analysis of ongoing social behavior. This would appear to be the key to understanding superior and subordinate interactions, as first suggested by Dienesch and Liden (1986). Yet, before one can understand the effects of values on interpersonal relationships, it is important to understand the construct of values.

**Social psychological view of values.** Much of what has been learned about individual values has come from the social psychological field of study. Values have been studied for almost a century (Spates, 1983) but were not taken seriously as a social phenomenon until Parsons and Shils' (1951) well-regarded *Towards a General Theory of Action*. Their edited treatise brought together many of the foremost sociologists of the time to contribute to a rich compendium of ideas regarding the study of values. From this came the foundation upon which modern value research is premised.

The Parsonians, including Kluckhohn, Tolman, Allport and others, argued that values should take a prominent role in the development of a unified theory of behavior. Kluckhohn (1951) provided the first systematic definition, which to this day provides the primary focus on which values research is based:

A value is a conception, explicit or implicit, distinctive

of an individual or characteristic of a group, of *the desirable* which influences the selection from available modes, means, and ends of action. (p. 395, emphasis added)

Yet, there were problems even with these seminal ideas. As abstract as values are, researchers recognized that values do not exist in a vacuum. Many modifications to the theory have been made since Parsons and Shils (1951), one of which was to clarify more distinctively the definition of values. Another was to distinguish values from beliefs, attitudes, and norms.

*Definitions.* Spates (1983) argued that the level of abstraction upon which early value constructs are couched makes it virtually impossible to verify their existence. Some of the very early research (prior to Kluckhohn's definition) relied on the work done by Spranger (1928) in *Types of Men*, and by Vernon and Allport (1931). Spranger (1928) was one of the first to systematically conceptualize individual values. He argued that an individual's personality could be known through the study of his or her values. Spranger does not seem to offer a clear definition of values, but created a classification system from which one could study the personalities of individuals (Hambrick & Brandon, 1988). Yet, Vernon and Allport (1931) felt Spranger's six classifications (theoretical, economic, aesthetic, social, political, and religious) were of utmost importance and developed them further into an empirical study. Unfortunately the basis upon which the classifications were built has become its major criticism.

Allport and Vernon's (1931) empirical typology of Spranger's (1928) value classifications was more concerned with the personality aspects of value identification than with what is "desirable," around which Kluckhohn's definition has been centered (Braithwaite & Scott, 1991). A further criticism levied against the Spranger/Allport-Vernon value classification system is the lack of recognition that measurement of the six categories results mostly in classification of interests as opposed to values. Interests, according to Fallding (1965), are not values, but only become values when they are exalted to "self-sufficient status." There have been other conceptualizations of individual values (e.g. Fallding, 1965) but Kluckhohn's (1951) definition has provided the basis upon which value research could move forward. It was not until 1973 that the study of values took a major change and solidified itself into a meaningful area of research for both sociologists and psychologists.

Rokeach's (1973) work on *The Nature of Human Values* was to forever change the focus by which individual values were examined. His seminal work provided the necessary linkage of conceptual and operational synergism. Following the lead first given by Kluckhohn, Rokeach defined values in a way that gave researchers the means to link values with behavior, along a continuum of value systems (Spates, 1983).

Rokeach's definition is as follows:

*A value* is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence. *A value system* is an enduring organization of beliefs concerning preferable modes of



conduct or end-states of existence along a continuum of relative importance. (Rokeach, 1973 p.5, italics in original)

Rokeach was very careful to eliminate all terms from earlier definitions of values which had connotations of obligation, such as "ought" and "should" or something seen as an attractive quality such as "desirable." The emphasis in Rokeach's definition is on the term "preferable," something of greater value as opposed to something to which an individual is attracted.

Rokeach's (1973) measurement system was by far the most representative of attributes of values, generalizable across individuals as well as situations, and by far the most parsimonious. The measurement instrument consists of only 36 items which were in turn split between two distinct concepts, terminal values (end-states of existence) and instrumental values (modes of conduct). He argued that "...all the values concerning modes of behavior are instrumental to the attainment of all the values concerning end states," yet these should be conceptualized as ideal. Rokeach (1973) further delineates values to be similar to beliefs in that they both have components of cognition, affect, and behavior. He was also clear on differentiating between values, attitudes, beliefs, and norms.

Values and beliefs. According to Kluckhohn (1951) values and beliefs are conceptually distinct even though they are influential and reinforcing of one another. For Rokeach (1973) values are cognitions about what is preferable, and individuals will cognitively know the appropriate way to behave. Further, values are affective to

the degree that an individual will feel a state of emotion toward a value. Also, values direct behavior in the sense of an intervening variable that is activated and causes an action to occur. Beliefs, on the other hand, are predispositions to behavior, capable of arousing one's affect around an object; values are either proscriptive or prescriptive beliefs transcending the object.

Values and attitudes. Values are different from attitudes. Values represent a standard or yardstick by which to gauge one's actions or attitudes. Attitudes focus on the specific object based upon the organization of several beliefs about the object.

Rokeach (1973) argues that values and attitudes differ in at least six different respects:

- Values are singular beliefs, while attitudes are an organization of several beliefs focused on a given object.
- A value will transcend the object, whereas an attitude will focus directly on the object.
- Values represent standards, attitudes do not.
- The attitude one holds toward numerous objects may only be premised upon a few values.
- Values are but a few, attitudes can number in the thousands.
- Values determine attitudes and are more central to the cognitive makeup of an individual.
- Values have a more direct linkage to motivation.

Values and norms. One significant contribution to come from the Parsonians was the differentiation between values and norms. Values provide a referent, whereas norms provide the rules and regulations for society and are based upon values (Spates,

1983). According to Parsons (1973), norms are what remain desirable, such as rules of society. Norms are the behavioral manifestations of one or more of an individual's values, or a manifestation of his or her value system, such as how an individual should behave in a specific way (Spates, 1983; Rousseau, 1990).

Values are distinct concepts inextricably linked to an individual's belief system. Rokeach (1968, 1973, 1979) has contributed substantially to researchers' knowledge about human values, and his work has become the model upon which all value frameworks are based. Currently, values research can be divided into two distinct research categories; (1) values research pertaining to the role of the individual, and (2) values research pertaining to institutions.

Much of this discussion has been centered around the individual. The next section moves the discussion to the institutional level. This is not to say that values cannot operate at multiple levels as shared cognitive representations (Rokeach, 1979), but the particular focus of this research effort remains with the individual. One weak point of Rokeach's set of values is a societal primacy that has little application to organizational and managerial settings (Hambrick & Brandon, 1988). Only a single study was found which utilized Rokeach's value survey in an organizational context (White & Ruh, 1973). For the remainder of this chapter the focus will be on values in organizational institutions, specifically on work values.

**Work values.** If behavior can be looked upon as a manifestation of values, then it is in the organization that these manifestations are best studied (Conner &

Becker, 1979). Much of the early, and some recent, research into work values, has examined the relationship between values and the "new" worker. The guidepost for this research has been the socialization process, and it has dominated much of the recent work values research in organizations (e.g. Conner & Becker, 1979; Weiss, 1978). The development of the construct of "person-organizational fit", which utilizes values as a determinant for how well an individual fits into an organization, revolves mainly around the process of socialization for new employees (e.g. Chatman, 1988; O'Rielly et al., 1991; and Ravlin, Meglino, & Ritchie, 1992).

Conner and Becker (1979) called for a more comprehensive understanding of how organizational actors, processes, and properties interact with values. They explicated multiple hypotheses which could be utilized to examine the relationship between values and organizational attributes. Several are particularly conducive to managerial actions. One noteworthy hypothesis reflects the effectiveness of a leader based upon the degree of value convergence between a leader and a member. Even though Conner and Becker (1979) believe that values may explain some critical missing variance, they acquiesce that their illustrative organizational hypotheses are merely "exhortations." This weakness was due primarily to the lack of any systematic research on work values at the time of their writing.

*Multidimensional issues.* Of the scores of studies which have examined work values in an organizational setting, there would appear to be three distinct areas of concentration: (1) the Protestant work ethic (e.g. Hulin & Blood, 1968; Wollack,

Goodale, Wijting, & Smith, 1971; Aldag & Brief, 1975); (2) person-organization fit, vis-à-vis work values (e.g. Chatman, 1988; O'Rielly et al., 1991; Ravlin et al., 1992); and (3) managerial values (e.g. Warrier, 1982; England & Lee, 1974; and England, 1967, 1975). A fourth area, classified as the "catch all" category, includes a variety of studies using a variety of instruments, and looking at numerous different issues (e.g. Weiss, 1978; Ronen, 1978).

*Managerial Values.* England's (1967, 1975) primary focus has been in the area of managerial values across different cultures. He presents a model of his Personal Values Questionnaire (PVQ), which indicates two primary classes of values: (1) operative values, those values that most influence behavior, and (2) adopted values, or professed values, that are inconsequential to the influencing of behavior. The PVQ consists of 66 items divided among five categories: (1) goals of business organizations, (2) personal goals of individuals, (3) groups of people, (4) ideas associated with people, and (5) ideas about general topics. By asking each manager to rate each of the 66 items in importance (low, average, high) and why the item was of importance, England is able to quantitatively assess whether the manager's values are driven by morality, pragmatism, or emotions. In his initial study of 3042 managers, England (1975) was able to determine that most American managers operate in the realm of pragmatism. A subsequent study with Lee (England & Lee, 1974; England, 1975) found similar results for US managers, as in the first sample and a similar pattern of results across four other countries. The major criticism of England's set of

66 items is the narrow focus on managers, and whether all 66 items are representative of actual values (McDonald & Gandz, 1992). Even with these shortcomings, England's work has made a major contribution to the study of values in organizations.

*Protestant work ethic.* The Protestant work ethic has also seen a good deal of coverage. Studies generally fall into two categories: first, Hulin and Blood's (1968) model regarded work ethic as "middle-class" work norms and values of integrated workers and alienated workers. Second, Wollack et al's., (1971) "secular Protestant Ethic" removes any traces of religious content across six dimensions: (1) pride in work, (2) job involvement, (3) activity preference attitudes toward earnings, (4) social status of job, (5) upward striving, and (6) responsibility to work. The main problem of both these measures for Protestant Ethic researchers is that they represent an individual's attitudes more than they are representative of enduring beliefs, and therefore do not measure interpersonal values, per se.

*Person-organization fit.* Recently, there has been a wave of interest in the ability to distinguish "work values" from the earlier conceptualizations of "societal values." Yet, the newer conceptualizations are based on the theoretical grounding of these earlier models. Two main groups of researchers have been leading this effort. Ravlin and her colleagues (Ravlin & Meglino, 1987a, 1987b, 1989; Meglino, Ravlin, & Adkins, 1989; & Ravlin et al., 1992) and Chatman and her colleagues (O'Rielly et al., 1991; Chatman, 1988, 1989, 1991; Chatman & Jehn, 1991; Caldwell & O'Reilly, 1990) have been vigorously pursuing work related values in a methodologically similar

fashion. Both are using purely ipsative rank-ordering of values, yet with completely different techniques and instruments.

Ravlin and her colleagues approach work values as "...beliefs about the way an individual *ought* to behave.." (Ravlin & Meglino, 1987a, p.155, emphasis added). The rationale behind this "oughtness" is based on the behaviors individuals "ought" to exhibit or "ought" to find most appropriate. For Ravlin, values are social in nature, and exist in both our society and our organizations. Values are shared by individuals through an interaction process in which they also share certain elements of cognitive processing (Meglino et al., 1989). This sharing is thought to foster communalities in thinking, communication, and decision making and to be crucial to the success of the interaction process and in the reduction of cognitive dissonance. Ravlin and her colleagues also believe that the convergence of values between individuals can influence such outcomes as satisfaction and commitment due to the ability of individuals to anticipate one another's moves. Owing to the stable nature of values, it is believed that the interaction process will only further enhance the satisfaction and commitment of individuals.

Ravlin and her colleagues found support for a relationship between value convergence and satisfaction and commitment (Meglino et al., 1989). They also found partial support for satisfaction with a supervisor in the absence of a task-related interaction on the dimensions achievement, helping, honesty, and fairness. Mixed results were found when an individual viewed the leader with greater uncertainty or

when the respondents had less formal interaction experiences with their leaders (Meglino, Ravlin, & Adkins, 1991). Another study by Adkins, Ravlin, and Meglino, (1992) found that tenure and work independence moderated the direct effects of value similarity with satisfaction, attendance, and performance. In a related work, Posner (1992) also found a positive relationship between values convergence and work attitudes which included items for commitment; the higher the level of convergence, the higher were positive work attitudes.

Two final aspects of the Ravlin studies that are critical to our understanding of work values, are value stability and value hierarchy. Early in the history of values study it was posited that values in a value system are of a hierarchical nature (Rokeach, 1973; Parsons, 1973; Feather, 1973; and Spates, 1979). This has specific implications for the measurement of values, and will be discussed in the next chapter. Until recently though, a hierarchy of work values was just speculation. In a seminal study on the transitivity of values, Ravlin and Meglino (1989) concluded that subjects' choices exhibited complete transitivity ( $A > B > C \therefore A > C$ ) for values ranking. Rokeach (1973) had previously commented on the enduring quality of values. In a longitudinal study done by Ravlin and her colleagues (Ravlin & Meglino, 1987b; and Adkins, 1992) substantial support for the stability of values over time was found, and value stability was found to be associated with both satisfaction and organizational commitment.

The two biggest deficiencies with the Ravlin and Meglino's (1987a)



conceptualization of work values are: (1) the range of value dimensions (fairness, helping, achievement, and honesty) would appear to be very narrow; and (2) nowhere could a published listing of the individual items used in the determination of the four dimensions be found. In the Ravlin et al. studies subjects were asked to choose between 12 value statements, each of which were paired with three other value statements representative of the other three dimensions. Thus, there were a total of 48 value statements, yet it was only possible to score a maximum of 12 points on any single value dimension and the total of all value scores could not exceed 24. This process, according to Ravlin and her colleagues, produced a hierarchically arranged set of values which are also transitive in nature.

The final set of studies most relevant to this research effort are those recently executed by Chatman and her colleagues (O'Rielly et al., 1991; Chatman, 1988, 1989, 1991; Chatman & Jehn, 1991; Caldwell & O'Reilly, 1990). Utilizing a profile comparison to assess person-organization fit, Chatman et al. examined different work attitudes and behaviors of new recruits in accounting firms. They also examined the constructs of selection and socialization for these new recruits to see if these influence the fit of the person with the organization. Chatman (1988, 1991) defined person-organization fit in terms of the congruence of interpersonal values between an individual and an organization. In other words, the alignment of an individual's value profile with a profile of values representative of the organization gives a measure of value convergence. Additionally, outcomes such as satisfaction, commitment, and

turnover intentions are examined as consequences to the level of "crystallization" (how widely shared) of the values. Chatman (1989) defined values, for purposes of her research, as a group product variable. This is not to say that all group members would have the same values, only that there would be convergence on relevant values. Results of her studies indicate that there is substantial support for the convergence of work values as predictors of job satisfaction, intent to leave, and commitment (O'Rielly et al. (1991)).<sup>11</sup> Also, partial support is shown for selection and socialization considerations as a predictor of the person-organization fit model.

Chatman (1989, 1991) and O'Rielly et al. (1991) used the instrument first created by Chatman (1988) that ranks a set of 54 value statements into specific categories. The final selection of 54 value statements was derived from a lengthy process of narrowing a larger set of 110 value statements representative of values which can describe any individual or organization (see O'Rielly et al. [1991] for more details on this process). The final value set is a quasi-idiographic approach to the determination of value profiles.

Chatman's (1988) Organizational Culture Profile (OCP) has certain distinct advantages over earlier methods just reviewed. Rokeach's (1973) approach argues for a more parsimonious approach (his value statements number just 18 items per dimension) because of the need to rank each value statement against every other value

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<sup>11</sup> Congruence on value profiles in Chatman's studies are measured through correlational analysis as opposed to the use of difference scores.

statement. The OCP also uses a rank order methodology, but with a forced choice procedure overlaying it. This allows the OCP to contain more items. Chatman (1988) argued that this was the best way to assure that a full range of values were included in the value profile.

The 54 item OCP asked each respondent to place the item statements into ranked categories of most desirable to least desirable or most characteristic to least characteristic, depending on the respondent's perspective. Individuals chosen as "informants," (someone who could readily indicate the characteristic values inculcated by the organization, usually senior level managers) collectively represented the organizational value profile. Individual members of the organization were chosen as "incumbents," those who could indicate the level of desirability of preferred values, and represent the individual profiles (new recruits in the Chatman [1988] study). A comparison correlation of the mean organizational value profile and the individual profiles determines the degree of value congruence.

The 54 items of the Chatman (1991) model have been subjected to factor analysis to determine its dimensionality. Even though this method is subjective by nature, i.e., a dimension's name is only as viable as the analyst's choice of possible descriptors, eight dimensions were determined: (1) innovation and risk taking, (2) attention to detail, (3) orientation to results and outcomes, (4) aggressiveness and competitiveness, (5) supportiveness, (6) emphasis on rewards, (7) team orientation, and (8) decisiveness. These eight dimensions are preliminary until further research in

different organizational settings can confirm them (Chatman, 1988; see Figure 4).

Because of the small sample size (n=398) for the factor analysis any conclusions as to the accuracy of these dimensions portraying stable value dimensions need to be exercised with caution.

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Insert Figure 4 about here

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Chatman's (1988) methodology for investigating interpersonal values has several advantages for this research. First, even though her study was focused on the fit between the individual and the organization, it is still relevant for assessing convergence between a leader and a member on a common theme, and it is presumed that congruence will reduce any negative aspects of exchange relationships (Schein, 1985). Second, Chatman (1991) found that the level of convergence between two entities on values was a better predictor of outcomes than either profile independently. Third, because of the quasi-idiographic approach of the OCP, the hierarchy and stability criteria espoused by Rokeach (1973) are implicitly satisfied. Finally, the instrument is conducive to examining a variety of organizational issues at multiple levels of analysis. The focus on a sorting format makes it readily adaptable to organizational, group, or dyadic profile comparison. Chatman (1991) has argued that examining individual value profiles as predictors of outcome variables is also plausible. Therefore, it is equally important to examine the level of analysis for the

network of values as it was for leader-member relationships and around which hypotheses can be formulated.

**Hypotheses.** Initial hypothesis formulation for a value convergence model follows the same format as for the leader-member exchange model. Given that the approach of this study is at the dyadic level of analysis, the initial proposition made here would be that value convergence can also be examined at the dyad level. Given that the nature of interpersonal values as a logical characteristic of interaction relationships:

**H<sub>4a</sub>:** There will be significant differences between dyads (and not within) on each measure of innovation, attention to detail, results orientation, aggressiveness, supportiveness, rewards, team orientation, and decisiveness.

In order to confirm that inferences can be made at the "ideal" dyad level of analysis it is necessary to test the hypothesis that differences are not occurring at a higher level of analysis. This is expressed by the following:

**H<sub>4b</sub>:** There will be *no* significant differences between supervisory groups on averaged scores of innovation, attention to detail, results orientation, aggressiveness, supportiveness, rewards, team orientation, and decisiveness.

Likewise, it is necessary to describe the relationship between the network of value dimensions and how they covary. In order that a clear distinction can be made at the "ideal" dyad level of analysis it is imperative that there be significant covariation between the network of value dimensions and *not* within, at the dyad level of analysis.

Following the process outlined previously, a covariation hypothesis must be drawn in support of the variation established in H4a and H4b:

**H<sub>5</sub>:** Dyads which are high on one set of components for any one of the value dimensions will also be high on each of the remaining measures for value dimensions.

### **Predictive Models**

Once it has been confirmed that the leader-member exchange relationship is occurring at the dyadic level of analysis, then the predictive nature of the network of variables can be examined. It has been shown in the previous sections that leader-member exchange variables and values have both been used in a direct effects sense with mixed results. As a precursor to combining these two constructs into an integrative model it will be necessary to test the direct effects of the two constructs on the stipulated outcome variables (see Figures 5 & 6). A separate hypothesis for each outcome will be necessary:

**H<sub>6a</sub>:** Dyads which are high on the network of independent variables will also be high on job satisfaction.

**H<sub>6b</sub>:** Dyads which are high on the network of independent variables will also be high on organizational commitment.

**H<sub>6c</sub>:** Dyads which are high on the network of independent variables will also be high on performance satisfaction.

**H<sub>6d</sub>:** Dyads which are high on the network of independent variables will also be low on turnover intentions.

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Insert Figure 5 about here

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Similar hypotheses can be drawn for the direct effects of work values:

**H<sub>7a</sub>:** Dyads which are high on the network of value dimensions will also be high on job satisfaction.

**H<sub>7b</sub>:** Dyads which are high on the network of value dimensions will also be high on organizational commitment.

**H<sub>7c</sub>:** Dyads which are high on the network of value dimensions will also be high on performance satisfaction.

**H<sub>7d</sub>:** Dyads which are high on the network of value dimensions will also be low on turnover intentions.

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Insert Figure 6 about here

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### **An Integrative Model**

From a theoretical viewpoint it is advantageous to determine the effect value convergence could have on the leader-member relationship. It is quite possible that the leader-member relationship develops only on the basis of shared values thereby mediating the effect value sharing has on relevant outcomes. Therefore, the last phase of this study is to integrate the two models of leader-member exchange and values, and to formulate hypotheses as to the effects on specified outcomes of this integration.

Scheibe (1970) provided us with the mechanism by which the integrative model can be developed. He stated that "...values must be viewed in the context of ongoing social behavior, and that role theory provides the appropriate terms for the analysis of social behavior." Thus, there is a provision for common ground in leader-member exchange theory and values. Conner and Becker (1979), in their development of values in organizations, suggested a related hypothesis that the degree of convergence between the leader and the member is directly related to leadership effectiveness. They further offered several questions researchers should be asking that are relevant to this study: *"Is value consensus between management and workers related to properties of organizational climate (such as job satisfaction, leadership style, etc.)" (p. 80)?*<sup>12</sup>

Two tangential yet related studies by Weiss (1978) and Vancouver and Schmitt (1991) are good indicators of the value in examining an integrative model. Weiss examined the direct effects of value similarity on the superior-subordinate relationship and found value similarity was significantly related to leader consideration. Meglino et al. (1989) has shown supervisor/subordinate congruence on work values is significantly associated with organizational commitment and job satisfaction. Vancouver and Schmitt utilized goal congruence instead of values and examined several hypotheses regarding the effect of leader-member goal congruence on several outcome variables. Their study directly tied the leader-member exchange framework

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<sup>12</sup> It should be pointed out that Conner and Becker's (1979) usage of the term "organizational climate" is not of importance here, only the fact that they feel it important to link value congruence with leadership and outcomes.



to goal congruence. They found significant relationships between leader-member goal congruence and job satisfaction, organizational commitment, and intentions to quit.

Given the above arguments it is therefore concluded that value congruence and leader-member exchange are conceptually similar enough to pursue an integrative model. Therefore, hypotheses generation reflecting this probable linkage can be formulated. (see Figure 7):

**H<sub>3</sub>:** Values will contribute to the amount of explained variance, even after holding constant the network of leader-member exchange variables, for subordinate performance, turnover intentions, job satisfaction and organizational commitment.

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Insert Figure 7 about here

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## CHAPTER 3

### Research Design and Methods

#### Sample

This study examines the dyadic leader-member exchange processes that are hypothesized to occur as natural entities within supervisory groups. Specifically, this study concerns the reciprocal behavioral processes that transpire between the formal leader of the supervisory group and each of his or her subordinates. The sample described herein is part of the implementation of a management development program (MDP) for third and fourth level managerial personnel in a mid-sized media services organization. This organization is located in a mid-sized city in the southeastern United States. It has begun to enter a period of stiff competition for market share from other media service organizations, the immediate consequence of which has been a peaking of revenues and a period of flat growth. Although a leader in the region in their industry, the subject organization is currently confronted with having to prepare for the uncertainties arising from external instability. To accomplish this they have decided to develop the talents of their managers, so as to grow and to meet the business challenges which lie ahead.

Third and fourth level managers, the subject pool for the MDP pilot group were selected on the basis of performance in a pre-development workshop held the previous year for all managerial staff levels. The study group was chosen based upon their perceived level of performance by a top HR manager, and is representative of a

broad range of skills and performance levels. Each manager was given a battery of pencil and paper questionnaires covering a variety of managerial development issues. Each manager was then asked to list his or her full-time, direct subordinates, from which corresponding matched reports can be collected.

The subordinate group consisted of individuals who have a direct reporting relationship with the leader in the designated managerial group. The minimum qualifications for this group of subordinates were a direct reporting relationship with the leader and full-time employment status. Data from approximately 110 dyadic relationships were collected. The subordinate sample was representative of a cross-section of the organization (see Table 1 for a complete breakdown of all sample characteristics).<sup>13</sup>

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Insert Table 1 about here

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There is no reason to believe that differences in demographic variables will affect the results, but tests were conducted to verify this conclusion. Subordinates and managers received the same instruments with the stem of the questions modified to reflect the proper perception of the subordinates. The samples were drawn at one time and therefore are cross-sectional. Even though this is a distinct limitation of the study, it is hoped that follow-up data can be collected just prior to the formal

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<sup>13</sup> See Appendix C for all tables.

implementation of the MDP in a year's time. The instruments were expected to carry over into the formal MDP (see Figure 8 for a complete listing of survey instrumentation).

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Insert Figure 8 about here

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### **Instruments: Independent Measures**<sup>14</sup>

**Quality of leader-member exchange.** The quality of leader-member exchange has been previously defined as the amount of latitude the leader extends to the subordinate in negotiating an individual's role development. The present scale attempts to address the concerns raised by Dienesch and Liden (1986) by designing the construct as a continuous measure and not as a means by which supervisory groups are dichotomized or trichotomized.

The instrument to be used here has been taken from Scandura and Graen's (1984) quality of exchange measure by adapting four of their seven items. A fifth item for the quality of exchange instrument was adapted from another similar measure by Graen et al. (1982). Internal reliability of the two source instruments has been shown to be sufficiently high for use in this study. A great deal of overlap exists

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<sup>14</sup> All independent measures were collected with matching reports between the leader and his/her direct subordinate. Complete survey instruments can be found in Appendix A

between Scandura and Graen's (1984) instrument and the Graen et. al's. (1982) instrument, and allows the researcher to draw from both. These measures were chosen because they are representative of the construct in the extant literature.

The response format for the quality of exchange measure is a six point Likert-type format with response format of strongly disagree to strongly agree. A six point format was chosen for most of the instruments included in this study in order to force responses in one direction or another, preventing a neutral response. Supervisors were asked how much they agree or disagree concerning the quality of the exchange between themselves and their subordinates. Subordinates were asked to provide matching information as to how they perceive the quality of exchange between themselves and their superior. A sample item is, "I am flexible about evolving and changing this subordinate's job."

**Loyalty.** Loyalty is one of the three dimensions which Dienesch and Liden (1986) argued will fill out a multidimensional framework of leader-member exchange. Loyalty is defined as the amount of support and openness the superior has for the subordinate. The instrument included in this study has been adapted from Jennings' (1967) loyalty scale and used by Brownlee (1991) and consists of five Likert-type items with the same response format as in the quality of exchange measure. A sample item is, "I show a great deal of loyalty to this subordinate."

The loyalty instrument has been used in a recent study of leader-member relationships and was found to have a very high internal consistency of .90 for both

the superior and the subordinate reports (Brownlee, 1991). Also, a measure of loyalty by Graen and Cashman (1975) has shown that this construct is significantly and positively related to exchange relationships.

**Liking.** The amount of affect a superior has on a subordinate is the second of three dimensions specified by Dienesch and Liden (1986) to improve the dimensionality of the LMX framework. A three item Likert-type scale, with response format as before, has been adapted from the Tsui and Barry (1986) interpersonal affect scale and has been recently used in a leader-member context (Brownlee, 1991). This scale measures the amount of admiration and respect the leader has for a member and the degree to which a leader likes his or her subordinate. The response format is as before. A sample item is, "I like this subordinate." Internal consistency of previous studies where this measure has been used ranges between .63 and .87 in the Tsui and Barry (1986) study, and .93 and .87 in the Brownlee (1991) application for superiors and subordinates respectively.

**Competence.** The last dimension Dienesch and Liden (1986) recommend is subordinate competence. The measure utilized here has been adapted from Wagner and Morse's (1975) Competence Scale. A six item Likert-type scale, with response format as before, has been shown to be highly reliable in a similar application by Brownlee (1991). She reports internal consistencies of .92 for the superior's report and .83 for the subordinate's report. Competence is defined as the level of ability a superior perceives the subordinate possesses. A sample item is, "I feel this

subordinate is thoroughly familiar with his/her job tasks."

**Leadership attention.** Two other measures likely to be important to leader-member exchange theory are presented here as extensions of the theory. The first measure, leadership attention, had been included in the original study by Dansereau et al. (1975). Leadership attention is defined as the amount of concern the superior has for each of his or her subordinates. This concern becomes translated into such things as encouragement, assurances, and support given to the subordinate. From the subordinate's perspective, leadership attention is the amount of perceived encouragement, assurance, and support he or she receives. The scale utilized in this study is a modified version of one used by Dansereau et al., (1984). A sample item is, "I am attentive to this subordinate's feeling and needs." The eleven item Likert-type scale with a six item response format as before, has been shown to have a very high internal consistency at .90 and above.

**Superior-subordinate satisfaction.** The final extension to the LMX framework is the level of perceived satisfaction with the superior, both from a self-report perspective and the subordinate's perspective. The scale utilized in the present study is a modified version of the Satisfaction With My Supervisor Scale (SWMSS) first introduced by Scarpello and Vandenberg (1987). The original scale consists of 18 items with stem and response formats to coincide with a degree of satisfaction configuration. The modified version used for this study contains 12 items that ask how much a superior gives of him or herself to each subordinate. A sample item is "I

give this subordinate plenty of time to do the job right the first time." The internal consistency measure for the original instrument were at a high of .95 and the reliability for the current modified measure used in an unpublished study are equally good. The validity of the SWMSS has also been established in a recent article by Vandenberg and Scarpello (1991).

### **Dependent measures**

Four dependent measures are thought to be important consequences to both the leader-member model and the work values model: 1) turnover intentions, 2) organizational commitment, 3) job satisfaction, and 4) performance.

**Turnover.** Turnover is probably one of the most studied outcomes in leadership and other research domains. For purposes of this study, turnover intentions is the main focus of interest. Vecchio and Gobdel (1984) indicated that from an operational standpoint the intention to quit will make for a useful antecedent of actually quitting. The three item scale of Intention to Turnover (ITO) previously utilized by Seashore, Lawler, Mirvis, and Cammann (1982), is being used in its original form but with a six point Likert-type response format of strongly disagree to strongly agree. A sample item is as follows: "I often think about quitting" and was collected on a single self-report from each individual. Reliability and validity information can be found in Cook, Hepworth, Wall, and Warr (1981).

**Commitment.** Organizational commitment, the second outcome measure to be examined in the present study, has also seen a great deal of research interest. The



scale adapted for this research is a shortened version of the Mowday, Steers, and Porter (1979) Organizational Commitment Scale (OCS). The original scale has a total of 15 items addressing different aspects of an individual's level of commitment to the organization. The scale herein has seven of the original items seen to be most relevant to this study. A sample item is, "For me this is the best of all possible organizations for which to work" and was collected on a single self-report from each individual. Reliability and validity information on the original scale is available in Cook et al. (1981). Response format for the current scale is a six point Likert-type format with strongly disagree to strongly agree as the two anchors. As before, no neutral response is provided.

**Job satisfaction.** Job satisfaction, next to turnover, is probably the most researched outcome in the leadership domain. For the present study a measure of job satisfaction is adapted from a shortened version of the Minnesota Satisfaction Questionnaire (MSQ, short form). Fifteen items of the original 20 item questionnaire were chosen as having relevance to the current study. Reliability and validity of the MSQ has been well established by Weiss, Dawis, England, and Lofquist (1967) with coefficients well above .80 for each sub-scale embedded within the MSQ. The MSQ is being used here as a general measure of job satisfaction for each individual in the study and was collected on individual self-report forms. Response format for the current scale is a six point Likert-type format with anchors of strongly dissatisfied to strongly satisfied. No neutral response is provided.

**Satisfaction with performance.** From a research standpoint, it has always been of utmost interest to link performance to the theoretical constructs of interest. This is no less true for leader-member exchange theory. Three types of measures have been most popular with researchers: surrogate measures of performance, perceived measures of performance (such as performance appraisals), and actual quantitative measures of performance. For the current study a measure of perceived performance is based on the level of performance satisfaction the superior has for his or her subordinates on an individual basis and was collected on matching reports. The satisfaction with subordinate's performance scale is a variation of the Yammarino and Dubinsky's (1992) measure with the addition of two items. A sample item for this scale is, "How satisfied are you with the way this subordinate performs his/her job?" The full scale has four items with a six point response format of strongly dissatisfied to strongly satisfied with no neutral response. Internal consistency for this scale has yet to be established for the current study, yet the inter correlation of the 2-item Yammarino and Dubinsky measure was .71.

### **Contingent measure**

**Interpersonal values.** The affects of interpersonal values on the leader-member relationship is the major focus of this research study. A measure of interpersonal values, which has been previously used to rank respondents' perceptions of critical value statements, has been formulated by Chatman (1988) and used extensively by her and others (O'Rielly et al., 1991; Sheridan, 1992). The

organizational culture profile (OCP) is based on a Q-sort methodology derived by Stephenson (1953) and Block (1978). Initially, the Q-sort method was used in psychological research and personality assessment. Its more recent application has been in the assessment of interpersonal values.

The instrument consists of 54 value statement cards and nine category cards. Each subject is asked to sort the deck of 54 values into nine different categories ranging from most characteristic to most uncharacteristic of the organization's extant values. Each category card stipulates how many value statement cards are to be sorted into each category as follows: the categories of "most characteristic" and "most uncharacteristic" receive only two value statements each; the categories of "quite characteristic" and "quite uncharacteristic" receive four item cards each; the categories of "fairly characteristic" and "fairly uncharacteristic" receive six item cards; and the categories of "somewhat characteristic" and "somewhat uncharacteristic" receive nine item cards. A neutral category between "somewhat characteristic" and "somewhat uncharacteristic" receives the remaining twelve value statements which were not placed in any of the other eight categories. The Q-sort methodology requires that each category be filled by no less or no more than the stipulated number of value item cards. In this methodology, a forced choice procedure has been imposed upon the sorting process. The outcome is a profile of the characteristic value array for each individual.

After sorting the value statements into the proper categories, respondents are

asked to place the cards into a stack with the "most characteristic" category card on top followed by the two value statements selected for that category. This continues until all cards are assembled into a full deck of 54 items and nine categories. Then item scoring is completed.

Scoring procedures are simple. Each value item (numbered 1-54) is given the score equivalent to the value of the category, eg., the "most characteristic" category has a value of nine while the "most uncharacteristic" category has a value of one. For the neutral category, the twelve value statements placed in this category each receive a value of five. Then statistical procedures can be applied.

*Development of the OCP.* The development of the OCP is fully documented in Chatman (1988) and therefore only a broad review is undertaken here. The initial items were selected from extensive research on organizational culture. Both empirical and practitioner orientations were reviewed and items were selected that represented basic values found in all organizations. Final selection of the 54 item set was made on the basis of generality, low redundancy, high readability, and no extraneous items (Chatman, 1988).

According to Chatman (1988), the Q-sort offers several unique advantages over the traditional methods of evaluating extant values with rating type scales. Each value statement is compared to every other value statement in the ranking process, making the instrument ipsative in nature and linking each category to every other category.<sup>15</sup>

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<sup>15</sup>Value items are not ranked within the categories themselves.

With this method of ranking, the respondent implicitly compares each item to every other item, and since the items are distributed in a pre-specified scheme, the final result is a normally distributed response scheme.

Secondly, the profile implicitly accounts for any cognitive constraints the raters might hold. This is achieved because each category is intended to be distinct and meaningful to the raters. The Q-sort method allows for a finer distinction between items than other methods.

Finally, the Q-sort is easily administered and comprehensible by the subjects. Average time required for both administration and ranking is about thirty minutes. The information gained by each subject/rater encapsulates a body of rich information about the hierarchical nature of interpersonal values relevant to organizations other methods fail to gather.

However, the Q-sort is not without its limitations. First, there is controversy about ranking methods versus rating methods. Specifically, the statistical procedures utilized to compare the results to a-priori hypotheses are especially controversial. . Second, the item set of 54 value statements are intended to be representative of all organizations. The OCP has only been used in a couple different types of organizations, and the external validity to other organizations has yet to be fully confirmed. Most of the research thus far has only been conducted in accounting firms. Full test-retest reliability is still being established, but initial indications are good at around the .73 level.

*Implementation of OCP.* The OCP is to be given to a group of managers who will sort the value items according to how each feels the value statements are "characteristic" of the organization. From this, each manager will then have a profile to be compared to their subordinates' profile. Subordinates will each sort the value statements in a similar manner, but their sorting will be from the perspective of what they believe to be the most "desirable" values for the organization to have. Upon completion, the individual profiles can be compared for convergence on value statements.

### **Procedure**

All instruments were collected in the organization at prearranged group sessions (see Figure 8 for summary of scales). Subjects were given enough time to complete all instruments involved in the study. Since the purpose of the research is to examine the exchange processes between a leader and a member, the respondents must identify themselves to the researchers. Therefore, this study was not anonymous. However, subjects were assured of the confidentiality of their responses. Only group level results will be reported back to the respondents as feedback for their participation. Subjects were told about the organization's desire to implement a management development program for existing and future managers. Managers were given their surveys first, in order to obtain their lists of direct report subordinate relationships. Once all subordinate relationships were identified, the subordinates were contacted and a time arranged for their taking of the survey.

## **Analytical Methods**

**Traditional tests.** Data analysis took several different courses. First, and where necessary, if the selected scales were greatly modified and if internal reliability was low, factor analysis was conducted to verify the unity of the construct of interest. Scale and item analysis for internal consistency was conducted on the constructs of interest to verify their usefulness in the current study. To do this, coefficient alpha were calculated for each of the scales. Alpha are reported on superiors and subordinates.

To check for sub-group boundary conditions, ANOVA's and t-tests were performed across several of the demographic variables collected. Such differences as gender, age, and tenure with the organization were compared on critical outcome dimensions.

Tests for social desirability of responses were also conducted. A comparison of the subjects responses with a shortened version of the Crowne and Marlowe (1966) Social Desirability Scale (SDS) was made to establish whether socially desirable responses have been encountered. The reliability of the shortened SDS has been shown to be as satisfactory as the full scale (Reynolds, 1982). A simple correlation of the respondent's aggregate scale scores with the SDS should satisfy this manipulation check. In the event that a specific variable indicates social desirability it has been noted, and future research should address the potential conflict.

**Within and between analysis.** The final statistical analysis will entail the

usage of a technique for simultaneously comparing between and within sources of variance and covariance for the variables of interest. This technique, termed Within and Between Analysis (WABA), is based on previous work done by Robinson (1950) on the covariance theorem, and subsequently expanded by Dansereau et al. (1984). WABA has been widely used by Markham (1988), Markham and McKee (1992), Yammarino and Markham (1992), and Yammarino and Dubinsky (1992) among others.

Using WABA gives a researcher the ability to analyze data in terms of the component parts of the total correlation. That is, the within-cell and between-cell portions of the total correlation are partitioned out for the analysis. Likewise, each relationship is retained according to both statistical and practical tests of significance. WABA also allows one to define and to examine the level at which a particular network of variables is operating (for a detailed explanation of WABA see Dansereau et al., 1984). The following is a brief overview of WABA.

*Levels of analysis.* The alternative views of leader-member relationships presented in Figure 1 preclude the use of traditional methods of data analysis. Thus, an analytic technique such as WABA, which has the ability to simultaneously evaluate multiple levels, is the preferred method of analysis. WABA can test each of the alternative relationships proposed in Figure 1. Inferences can then be drawn about potential dyadic relationships (Yammarino & Dubinsky, 1992).

In the WABA procedure, the within- and between- cell correlations can be



compared to one another using the test for significance (both practical and statistical). The cells are aligned with the specified level of analysis (the dyadic level, in this case) and the raw scores of variables of interest are partitioned into within and between deviation scores. Several other correlations are then analyzed from these deviation scores and can be summarized by the following equation:

$$r_{xy} = \eta B_x \eta B_y r_{Bxy} + \eta W_x \eta W_y r_{Wxy}$$

whereby

$\eta B_x$  = the between-eta correlation for variable X,

$\eta B_y$  = the between-eta correlation for variable Y,

$r_{Bxy}$  = the between-cell correlation for variables X and Y,

$\eta W_x$  = the within-eta correlation for variable X,

$\eta W_y$  = the within-eta correlation for variable Y,

$r_{Wxy}$  = the within-cell correlation for variables X and Y,

$r_{xy}$  = the raw score *total* correlation between X and Y.

The above represents the WABA equation which delineates the total raw correlation into two specific components, the between-cell component ( $\eta B_x \eta B_y r_{Bxy}$ ) and the within-cell component ( $\eta W_x \eta W_y r_{Wxy}$ ). The WABA equation summarizes any differences in the correlations between and within dyads.

*WABA I.* Because each variable of interest potentially can display variation or consistency within and between cells, the eta correlations are used to determine the appropriate level at which the data is aggregated. It can be expected that dyadic

effects between the leader and the member will appear as differences between dyads and not within dyads. WABA I analysis makes a determination whether the between-dyad etas are larger than the within-dyad etas. To accomplish this, tests of both statistical significance ( $F$ ) and practical significance ( $E$ ) are performed. When the within-dyad etas are larger than the between-dyad etas a corrected statistical significance ( $F$ ) (inverted) is used.

Statistical significance is computed for a comparison of the etas and indicates whether the between-cell eta ( $\eta B$ ) is larger than the within-cell eta ( $\eta W$ ). Dansereau et al. (1984) stipulates the degrees of freedom for the between-cell eta to be  $N-J$  and the within-cell eta to be  $J-1$  whereby  $N$  is equivalent to the number of scores and  $J$  is equivalent to the number of dyads. Practical significance on the other hand is warranted as additional support for significant findings of the etas. Determination of the magnitude of the effect size, the ratio between  $\eta B_x$  and  $\eta W_x$ , must be calculated to determine which eta is most representative of the operative variation.<sup>16</sup>

*WABA II.* Yammarino (1990) explains that the relationship between two variables of interest, taken two at a time, can either show a lack of differences (error) or indicate the existence of valid differences within and between cells. Since the focus here is on the dyad level of analysis, when the between-dyad correlations are

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<sup>16</sup> The traditional test for significance is the ( $F$ ), practical significance is an additional test and both tests together are the most rigorous, testing procedure. Interpretations of the data could change depending on the combination of tests utilized (see Dansereau et al., 1984).

*significantly* larger than the within-dyad correlations, then factors regarding dyad membership are crucial for predicting the magnitude of the correlation. Dyad membership is irrelevant to the analysis when equivocal and/or null results are found at the dyad level.

Significance testing, both practical and statistical, of the within/ and between/ cell correlations are examined with the use of a *Z* test (statistical) and an *A* test (practical). The *Z* test is the traditional test for significance but with *J-3* and *N-J-2* degrees of freedom. For an *A* test of practical significance, the magnitude of the effects are represented by the following formula:

$$A = \theta_w - \theta_b$$

whereby

$\theta_w$  = angle associated with the within cell correlation

$\theta_b$  = angle associated with the between cell correlation.

Therefore, WABA I results can be modified by the results presented in WABA II, eg., if both WABA I and WABA II results indicate that between-dyad effects are significant, there is a very strong inference that membership in the dyad is important to the leader-member relationship. Results that indicate strong inference toward dyad effects would also require an analysis at the supervisory group level to eliminate that level as a potential level for the aggregation of data. For a more in-depth discussion on the types of inferences which can be drawn see Dansereau et al. (1984) and Yammarino and Dubinsky (1992).

**Multiple regression analysis.** Once the implications of the WABA analyses are fully known, their relevance for the selected outcome variables can be examined. Since the above analyses require that all reports be matched at the dyadic level, and because the outcomes are collected as single reports, multiple regression analysis is the best method for testing the direct predictive qualities of the aforementioned relationships. The independent measures of leader-member exchange have been collected as matching reports and the analyses here will utilize a dyad mean of the matched report.

Two aspects of the predictive nature of the variables of interest are of particular importance to this study; (1) whether or not the dyadic measures on the independent constructs indicate direct effects on outcomes, and (2) whether interpersonal values explain additional variance over and above the leader-member model. Utilizing stepwise hierarchical regression the leader-member dimensions will be entered first and held constant to the work values dimensions. Stepwise regression enters a variable according to its individual contribution to the R square, it does not retain non-contributing variables and therefore leaves the researcher with the most influential nomological network.<sup>17</sup> No a-priori interaction effects are stipulated due to the lack of theoretical justification.

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<sup>17</sup> When Type I Sum of Squares is used the order of entry into the equation becomes important and must be stipulated beforehand. Type III Sum of Squares only shows the effects of a regressor when it is entered last into the equation. Stepwise regression resolves the ambiguity of the results making interpretation easier. A full discussion on Multiple Regression Analysis can be found in Pedhazur (1982).

## CHAPTER 4

### Results

The following chapter presents the results of the data analyses pertaining to the hypotheses presented in Chapter 3. The initial discussion presents basic statistics on each of the dimensions of interest and includes: (1) the labeling of each dimension, (2) variable means and standard deviations, (3) zero order correlations of supervisor/subordinate, and (4) zero order correlations of dyad means including individual level outcome measures. The descriptive statistics for all dimensions are presented together for convenience.

After a brief overview of the Within and Between Analysis (WABA) decision rules for determining the appropriate level of analysis for each variable, this chapter presents the analytical results for each set of hypotheses. The discussion begins with the specifics of each WABA analysis for the leader-member network, the outcome measures, and the work values measures. These results will dictate which predictor models can be further analyzed. Post-hoc analysis later in this chapter will examine alternative approaches for modeling the data. This chapter concludes with a summation of the various results.

#### **Descriptive Analyses**

This section presents the descriptive statistics and the variable names for the measures used in this study (see Table 2). The sample size, sample mean and

standard deviation, and the minimum and maximum response set for each dimension of interest are presented in Table 3. Information is provided on (1) classification variables, (2) outcome variables, (3) the individual-level superior reports, (4) the subordinate matched reports, and (5) each averaged dyad pair. With the exception of three dependent variables, turnover, organizational commitment, and job satisfaction, each dimension was collected at the dyad level of analysis. Individual perceptions on turnover, organizational commitment, and job satisfaction were necessary for individual feedback to the subject organization and to reflect individual subordinate's criterion behavior.

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Insert Table 2 about here

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For all variables except turnover intentions, a higher mean score represents stronger levels of agreement. For turnover intentions, a higher mean score represents a greater inclination toward leaving the organization. A dyad mean score is derived for all measures utilized herein with the noted exceptions above.

The coefficient alpha values for each scale, based on raw scores, are presented in Table 3 as an indicator of internal reliability. Nunnally (1978) suggests .70 as a lower bound for the reliability of a particular scale. The alpha's for the group of scales measuring the leader-member exchange relationship range from a low of .74 to a high of .95, indicating excellent results for the internal consistency of these scales.

Since each scale represented here exceeds the Nunnally (1978) standard, all were considered sufficiently reliable.

Although Chatman (1988, 1991) and O'Reilly et al. (1991) factor analyzed their findings on work values and derived subjective dimensions for their samples, these factors were not subjected to any confirmatory statistical analysis. These dimensions are included in the current study largely for three exploratory reasons: (1) to see if the dimensionalized Q-sort items specified by Chatman can be used in a dyadic predictor model; (2) to see if an alternative sample could replicate Chatman's factors; and (3) to compare the predictability of the Chatman dimensional model to a work values congruence score in post-hoc analysis. This later method is the one that Chatman (1988, 1991) and O'Reilly et al. (1991) have previously utilized in their studies.

The means, standard deviations, minimum and maximum scores and alpha's on each dimension of work values for both the subordinates and the managers are also presented in Table 3. Differences in sample sizes reflect the manager to subordinate ratio for this sample. Finally, Table 3 shows the descriptive statistics for each dyad mean utilized in the majority of analyses. As can be seen from the extremely poor alpha's, indications are that the dimensionalized work value network may not be appropriate. Confirmation of this is presented in the next section.

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Insert Table 3 about here

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The total correlations between each dimension for which there were superior and subordinate matching reports are presented in Table 4a. These correlations represent the traditional cross-rater raw correlations. As can be seen from these results competence is non-significant while loyalty, liking, quality of exchange, and subordinate performance display significant results. These are contrasted with the WABA dyad level results also in the next section. Table 4b presents the correlation matrix for each dyad mean and individual level outcome. These will be discussed in conjunction with the forthcoming analytical results.

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Insert Table 4a and 4b about here

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### **Analytical Results - Levels of Analysis**

The analyses in this section relies on the use of Within and Between Analysis (WABA) for hypothesis testing. The decision parameters utilized within the WABA framework are reviewed. The results for each major portion of the overall model are then presented as outlined previously in Chapter 3.

**Within and Between Analysis decision rules.** In Chapter 2 a brief description of the four possible WABA conditions that can be inferred by the data



were outlined. The four conditions are: (1) wholes, a significant between-unit focus with no significant within-unit influence; (2) parts, a significant within-unit focus without a significant between-unit influence; (3) equivocal, whereby no significant between-unit or within-unit influences are occurring because both between-unit and within-unit influences are significant at the same time; and (4) null (or inexplicable), whereby neither between-unit or within-unit influences are significant and the results are near zero. In order to be able to adequately capture all possible combinations of inferences a decision matrix can be formulated premised on the WABA covariance equation.<sup>18</sup>

The basic idea behind WABA is the partialling of the total correlation into between- and within-unit variance and covariance components in order to make inferences as to the appropriate configuration of the relationship. From this, a determination can be made as to the statistical relationship between any two variables and the level of analysis at which the variables are operating. The covariance equation, given as,

$$r_{\text{Total}} = (\text{between scores}) + (\text{within scores})$$

$$r_{\text{Total}} = (\eta_{b1})(\eta_{b2})(r_b) + (\eta_{w1})(\eta_{w2})(r_w)$$

examines simultaneously the relationship between two variables and their relevant components. Test for significance are both at the statistical and practical level (see

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<sup>18</sup> For a detailed presentation of the WABA analysis, and the statistical and practical tests for significance, refer to Dansereau et al. (1984).

footnote above) for each between and within eta (WABA I Test) and also for the differences between the component correlations (WABA II Tests). An ideal WABA I significance test for the between and within etas is shown in Figure 9. The test of statistical significance for WABA I is the  $F$  statistic. As the between eta approaches 1 the within eta should simultaneously approach 0, thus resulting in a *between* (wholes) condition at the dyad level. Should the opposite occur then the ideal WABA I inference would be a *within* (parts) condition and the variable under examination would not be operating at the dyad level but quite possibly at the group level of analysis (see Figure 10).

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Insert Figures 9 and 10 about here

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Ideal WABA II difference tests examine the practical and statistical difference between the component correlations, i.e., the between-dyad ( $r_b$ ) correlation and the within-dyad ( $r_w$ ) correlation. As with the WABA I test, for the network of variables to be operating at the dyad level the between component correlation must approach 1 while the within component correlation simultaneously approaches 0. The inference made under these ideal conditions results also in a *between* (wholes) condition. For WABA II the test for significance is the  $Z$  statistic for differences between the component correlations (see Figure 11). Practical magnitude tests of significance,

geometric tests as reported in Dansereau et al. (1984), should also be supportive of the statistical test in the ideal condition. A summary of the full WABA covariance equation, which is required for the ideal dyad level of analysis is presented in Figure 12. This also includes what the final inference would be given these ideal conditions.

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Insert Figures 11 and 12 about here

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In the "real" world of social science, various sources of error are encountered and the chances for obtaining ideal results are nearly impossible. Therefore, Figure 13 presents the decision rules for making final WABA inferences when findings are less than ideal. Utilizing the full WABA equation (Figure 12) in conjunction with these decision rules categorize the level of inference from strongest to none which can be obtained given the WABA results. For purposes of this study, the final inference that should be obtained is the "between-dyad condition." This is only obtainable under three different scenarios, as depicted in Figure 13. For any other WABA I and WABA II combination the network of variables would not be operating at the dyad level. The discussion will now turn to the analysis of each hypothesis specified in Chapter Three based on this decision matrix.

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Insert Figure 13 about here

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**Leader-Member Hypotheses.** For the network of leader-member variables, Hypotheses 1 thru 2 state that, when taken together, this network will operate only at the dyadic level of analysis. Hypothesis 1a requires that the findings of a WABA I test of significance at the dyad level indicate a *between* condition for each of the variables of interest. Likewise, Hypothesis 1b requires that simultaneously this network of variables will indicate a *within* condition at the group level. Using *multiple levels of analysis* (MLA), as stipulated by Dansereau et al. (1984), Table 5a shows the results of the WABA I statistical significance tests for hypotheses 1a and 1b. The *F*-tests for statistical significance at the dyad level indicate a *between* effect for the dimensions of **LOYALTY** and **LIKING**. For each of the remaining dimensions, **COMPETNT**, **SATISFY**, **ATTENTION**, and **QUALLMX**, an *equivocal* condition is stipulated. The bottom of Table 5a show the results of WABA I at the supervisory group level. Only the variable **COMPETNT** infers a *within* effect at this level, while the remaining dimensions indicate an *equivocal* condition.

Given the results indicated by the above WABA I tests, only partial support for Hypotheses 1a and 1b can be claimed. This is not to say that the utility of these dimensions within the leader-member network is lost, such a decision can only be made upon completion of the full WABA analysis. The final step is an evaluation of the network on a two-by-two comparison as stipulated by WABA II.

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Insert Table 5a about here

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Hypothesis 2 states, any leader-member dimension, when taken two at a time, that indicates a significant correlation will also be significant with its other comparisons. The WABA II significance test for differences between the component correlations on each pair of comparisons is the Z-test. Table 5b indicates that at the dyad level subordinate competence is significantly different from all but the **COMPETNT/SATISFY** combination with each pair showing a *between* effect as hypothesized. For each remaining two by two combination of the leader-member variables the inferences are *equivocal*, with the exception of **SATISFY/ATTENTION**. This particular combination indicates a *within* effect, the opposite of what was hypothesized. Discussion of this anomaly is reserved for the final chapter.

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Insert Table 5b about here

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WABA II test must also be performed simultaneously at the supervisory group level to further isolate the operative level of analysis. Table 5c indicates that there are no significant differences between any two-by-two combination of variables within the leader-member network with each showing an equivocal condition.

Support for Hypothesis 2, based on the WABA II results, would appear to be

mixed. There is no clear indication this network of variables is operating at the dyad level of analysis. Without cleaner results from either WABA I or WABA II, emphasis must now be placed on a combined summary of these results.<sup>19</sup>

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Insert Table 5c about here

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**Combined Inference.** Combining the WABA I and WABA II test reveals a much clearer indication of what is actually occurring in the leader-member network. Final inferences as to the overall viability of the network at the dyad level of analysis are evaluated together by the full WABA covariance equation presented in Table 5d. The final inference for each two-by-two combination of variables is shown in the last column. Utilizing the decision rules from Figure 13, the combined WABA I and WABA II results make for a more powerful inference because it reveals which components are the significantly more important of the total correlation. There are many more instances for inferring a *between* dyad effect (albeit a category II inference) for this network of variables than when taken individually. With the exception of superior/subordinate satisfaction (SATISFY), the and possibly leader attention (ATTENTION) the network of leader-member dimensions are suitable for further development at the dyad level.

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<sup>19</sup> Tests for practical significance are shown for information purposes only in Tables 5f thru 5h.

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Insert Table 5d about here

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To support these conclusions Table 5e presents the results of the full covariance equation for the leader-member network at the supervisory group level. From the hypotheses it would have been expected that a within-group effect would have been found, or at the minimum an equivocal condition based on an equity relationship (see Figure 2). This indeed is the case for each two-by-two comparison in Table 5e.

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Insert Table 5e about here

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By way of summary, with the exception of superior/subordinate satisfaction (**SATISFY**) and possibly leader attention (**ATTENTION**), Hypotheses 1a, 1b, and 2 were satisfied as expected. Therefore, the appropriate level of analysis for the aggregation of data for this specific network of variables is the dyad. Discussion and conclusions regarding the dimensions **SATISFY** and **ATTENTION** are reserved until the final chapter. The results shown above allow for the retention of the leader-member model.

**Outcomes Hypotheses.** As previously mentioned, the dependent measures of **ORGCOMMT**, **TURNOVER**, and **JOBSATFC** were not collected utilizing matching

supervisor/subordinate reports. Therefore single level of analysis (SLA) at the supervisory group is the preferred WABA approach. To include the dimension of subordinate performance (**PERFORMS**) in this analysis a mean score of the superior/subordinate reports was utilized. Hypothesis 3 stipulates that the group level will not be the active level of analysis if it can be shown that either an equivocal effect or a within-unit effect is operating.<sup>20</sup> As summarized in Table 6a both the WABA I and the WABA II results for the network of outcome variables indicate an equivocal condition with the exception of the two-by-two relationship between organizational commitment and job satisfaction. Although a hypothesis for a WABA II was not specially identified it is useful for making inferences in a combined WABA I/WABA II model.

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Insert Table 6a about here

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The full WABA equation shown in Table 6b supports the above findings. Final inferences of an *equivocal* condition for all relationships in the network except the **ORGCMMT/JOBSATFC** combination are identified.<sup>21</sup>

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<sup>20</sup> See Markham, Murry and Scott (1992) for a detailed example.

<sup>21</sup> Table 6c shows the tests for practical significance for this network of variables.



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Insert Table 6b about here

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In summary, these results support Hypothesis 3 that this network of variables is not operating at the group level of analysis as expected. Given this finding, it is possible then to include this network of outcomes as part of the general model. The fact that we have only been able to reject the group level and not conclusively identified the dyad versus the individual only means that caution is advised in the final conclusions.

**Work Values Hypotheses.** The final network of variables are those having to do with the work values model. Since Hypotheses 4a, 4b and 5 are similarly constructed as previous Hypotheses, the presentation will follow the same format. Using *multiple levels of analysis* (MLA), inferences can be made as to the most appropriate level of operation for this network.

Table 7a presents the summary results for the WABA I statistical significance tests for Hypotheses 4a and 4b on the work values network of variables. These statistical tests (*F*-test) resulted in mixed findings.<sup>22</sup> Only team orientation (TEAMORIE) clearly shows a significant *between* inference at the dyad level but findings at the group level appear to offset this result. A comparison of WABA I

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<sup>22</sup> Tests for practical significance are shown for information purposes only in Tables 7f thru 7h.

results at the dyad level and group level have far too many inconsistencies to be able to conclusively make final inferences. A move to WABA II analysis is therefore warranted.

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Insert Table 7a about here

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Waba II results for the work values network at the dyad level are presented in Table 7b. A clearer indication as to the appropriate level of analysis begins to appear with these WABA II results. The majority of the relationships at the dyad level are inferred as *equivocal* or NULL conditions. This is also true when one examines the group level results in Table 7c.

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Insert Table 7b and 7c about here

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With the exception of team orientation, the combined WABA I/WABA II equation at the dyad level for this network of values does not support Hypotheses 4a, 4b, and 5. Table 7d presents these results and only team orientation might be operating at the dyadic level. It would have been expected that, by its definition, this particular dimension would operate only at the group level. Most inexplicable are the *within* inferences which appear for several of the relationships, while others clearly are *equivocal*.

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Insert Table 7d about here

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The most interesting and conclusive findings are presented in Table 7e at the group level of analysis. In every two-by-two relationship examined, except **DETAIL/REWARDS**, the final inference clearly indicates that a *between*-group effect is occurring. These results, when considered with the dyad level, give a clearer indication that perhaps the dimensionalized work values network is operating at a level higher than the dyad.

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Insert Table 7e about here

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In summary, the issue to be resolved is one of appropriateness for these work values dimensions. WABA I results for Hypothesis 4a and 4b seem to suggest a group level effect, the opposite of what was hypothesized. WABA II results, taken by themselves, do not support Hypothesis 5 or offer an alternative conclusion. The overall WABA equation at the group level revealed the most conclusive pattern for interpretation, where it can be said that work values operate at the group level as opposed to the dyad level.

**Summary WABA results.** In order to fully appreciate the results for each network of variables, a summary matrix has been put together and is presented in

Table 8. It would appear from these results that the most questionable dimension in the leader-member network would be the superior/subordinate satisfaction dimension. The dimensions of leader attention and leader-member quality of exchange are more clear, since these two dimensions have a much stronger relationship with competence, loyalty, and liking. The very high intercorrelations between **ATTENTION** and **QUALITY** ( $r_t = .87$ ) would seem to indicate multicollinearity. Lewis-Beck (1980) states that multicollinearity between two variables with intercorrelations above .80 could be affecting these results. This will be checked in the direct effects regression analysis. As for superior/subordinate satisfaction, the results would seem to indicate that this dimension is less a part of the leader-member network than the other dimensions and therefore further testing will exclude it from consideration.

The summary matrices for the work values WABA results are also presented in Table 8. A comparative analysis reveals that the group level matrix best represents what is actually occurring for these particular dimensions because of the strong between-group effect. Any further analysis utilizing this network should be confined to the group level and consequently not utilized in either of the remaining predictive models. Therefore, future dyadic level analyses will not include a dimensionalized version of the work values variables. Since the formulation of the work values was preconditioned as to these findings with an alternative venue, this will be tested in post-hoc analyses. It is likely that the work values framework is more conducive to a profile of fit (POF) between subordinates and managers than a dimensionalized

framework. The summary matrix for the outcome variables is also represented in Table 8. Overall results at the group level show an equivocal effect indicating at a minimum a lower level of operation for these variables. The job satisfaction/commitment comparison indicates a between-group effect, but this is solely supported by the WABA II analysis. Recall from Chapter 2 that for this network of variables it does not make sense from a theoretical perspective to speculate as to the covariation between these variables. Therefore, it is appropriate to continue with the dyadic level of analysis and the direct effects model.

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Insert Table 8 about here

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### **Direct Effects Analyses**

The original framework presented in Chapter 3 shows direct effects on outcomes being hypothesized for both the leader-member exchange construct and the work values construct. In the previous section just discussed, it was determined that the present work values framework was not appropriate to a dyadic level of analysis and, therefore, was dropped from further consideration in the current model. However, for the leader-member exchange construct it was determined that dyadic relationships do indeed occur as hypothesized and therefore direct effects on outcomes can be tested. The discussion will return to the work values framework later in this chapter.

**Leader-member effects.** Multiple regression analysis was used to test the direct effects of the leader-member relationship on various outcomes. Each outcome, subordinate performance, organizational commitment, turnover intentions, and job satisfaction, was tested as a separate dependent variable. To accomplish this, a stepwise regression model using the dyad means of the leader-member variables was utilized to examine Hypotheses 6a thru 6d. Stepwise regression allows the regression program to automatically select and retain only those variables of the leader-member network which have the greatest utility as predictors. Those predictors that are determined not to make a suitable contribution to total R-square are removed from the regression equation. This method is preferable over other alternatives such as forward or backward selection as these methods retain the predictor in the equation even when there is no meaningful contribution to the model. Using the stepwise technique further substantiates the variables which belong to the leader-member network (Pedhazur, 1982).

Summary statistics, analysis of variance, and final parameter estimates for each hypothesized relationship are shown in Tables 9a thru 9d. The leader-member variables of competence, loyalty, affect, leader attention, and quality of exchange, are entered at the first step of each regression equation. Table 9a shows the results for these regressors on subordinate performance. In the final regression model only three of the five leader-member predictors remain-- competence, loyalty, and liking. The total amount of variance represented by these three variables reaches .80 and each

regressor is significant at the  $p < .02$  level. The combined model for all three regressors has a significant  $F$  value of 138.87 ( $p < .001$ ). As an additional check, the Variance Inflation Factor was calculated for the test of multicollinearity and found to be sufficiently below the 6.0 cutoff considered by Montgomery and Peck (1982) to be indicative of high amounts of collinearity. Hypothesis 6a was partially supported by these findings, with the exception of leader attention and quality of exchange. These two regressors made no additional contribution to the overall R-square. Therefore, it can be shown that competence, loyalty, and liking are better predictors of reciprocal perceptions on the adequacy of a subordinate's performance than are leader attention and quality of exchange.

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Insert Table 9a about here

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The results of the regression analysis for Hypothesis 6b, leader-member predictors regressed on organizational commitment are presented in Table 9b. Only a single regressor, subordinate competence, survives the stepwise analysis and only explains .04 of the total variance ( $p < .05$ ;  $F = 4.27$ ). This finding only marginally supports Hypothesis 6b. Speculation as to why the remaining regressors are not contributing as predictors is presented in Chapter 5.

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Insert Table 9b about here

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Results for Hypothesis 6c, shown in Table 9c, indicate nearly identical findings as in Hypothesis 6b. No other regressor other than subordinate competence contributes to the predictor model for turnover intentions. The resulting R-square for this model is .10 ( $p < .001$ ;  $F = 11.60$ ), explaining little variance. Like the previous hypothesis, Hypothesis 6c is partially supported.

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Insert Table 9c about here

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The final regression analysis on job satisfaction, Table 9d, differs from the previous two findings. This predictor model includes only leader attention and quality of exchange. Competence, loyalty, and liking make no contribution to the overall R-square of .51 ( $p < .001$ ;  $F = 54.99$ ). Therefore, Hypothesis 6d indicates a different set of predictors than any of the previous three models, yet it is still only partially supported by these findings. As in each case before, multicollinearity is not seen as a problem.

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Insert Table 9d about here

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Overall, the above results only show partial support for each of the predicted outcomes. Competence by far is the stronger predictor among the leader-member variables for this set of outcomes. Each of the remaining leader-member dimensions does contribute something to the prediction of the outcomes.

Since the work values dimensions were dropped temporarily from further consideration, it is not necessary at this time to proceed with the analysis of Hypotheses 7a thru 7d nor with the analysis of Hypothesis 8. These will be discussed in conjunction with the post-hoc analyses which follow.

### **Post-hoc Analyses**

Two types of analyses were performed for purposes of determining if the overall model was subject to the presence of statistical artifacts. First, manipulation checks were performed across the entire network of leader-member dimensions for each of the classification variables (CV) stipulated in Table 2. Second, a revised model for the work values construct was developed and tested following the original analyses by Chatman (1988, 1991). For each of these model improvements are reported below.

**Manipulation checks.** To test for any demographic sub-group effects on the leader-member construct, regression models were established and analyzed. First, the direct effects on each leader-member dimension from any of the classification variables (CV) was examined. Next, if a significant effect did occur, that particular CV, in conjunction with the full leader-member model, was regressed on each

outcome variable. No boundary effects were discovered from the sub-group analysis.

Social Desirability. One additional test was performed using the classification variable social desirability. Because of the self-report nature of the survey instruments, and the fact that this study was conducted under non-anonymous conditions, it was felt that social desirability could be an influence in the individual results. To perform this test a simple correlation was performed between social desirability, each of the supervisor/subordinate reports, and dyad means. None of the dyad means indicated any significant signs that individuals were answering in a manner which would make them appear to favor the most desirable response. However, individual reports on organizational commitment, turnover, job satisfaction, supervisor loyalty (supervisor's view), and subordinate competence (subordinate's view) each indicated significant correlations with social desirability. Further correlation analysis of these variables, partialing out for social desirability, showed no significant improvements to the original correlations indicating social desirability is not a major factor.

Revised work values model. Because the tested model for the network of work values performed so poorly in the WABA analysis, it was deemed beneficial to test an alternative approach previously used by Chatman (1988, 1991) and Chatman et al. (1991). This approach does not factor work values into subjective dimensions, but constructs a profile of similarity on the entire set of work values for each individual and a composite profile for key informants within the organization (for this study, the

informant group is composed of the 25 sample managers). This method of analyzing the data from a ranked order, forced-choice, response set was first derived by Stephenson (1953) and later expanded on by Block (1961).

The essence of this analysis is the creation of a composite of the informant group's (managers) perceptions of the ideal value structure for the organization. This composite consists of the averages across all managers on each of the 54 items in the card sort.<sup>23</sup> Table 10a represents what the manager's profile of item means looks like for this sample and is ranked from the highest to the lowest item mean. Profiles are then created based on the subordinate's card sort of the 54 value items.

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Insert Tables 10a about here

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Because of the problem expressed in footnote twenty relative to a common mean, it is necessary to use the correlation of the subordinate's raw profile (see Table 10b for an example) with the composite profile of the manager's for predictive data analysis. The resulting correlations are considered by Block (1961) to represent the profile of fit (POF) between the two sets of scores (see Table 10c). According to Stephenson (1953) and Block (1961), an average of these profile correlations is used

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<sup>23</sup> For a detailed explanation on the specific procedures for creating these profiles see Block (1961) or Stephenson (1953). It is not possible to compare a mean of an individual's card sort with another's card sort because the mean of the individual card sort will always be 5.0.

for further statistical analysis such as multiple regression. This is the same technique utilized by Chatman (1988) and others in their analysis of work values. Meglino et al. (1992), in a comparison of different methods for collecting and evaluating work values, found the profile approach to be the best overall predictor of outcomes.

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Insert Tables 10b and 10c about here

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A managers' composite profile of correlations was also created and is presented in Table 10d. These represent the correlation score for each manager against the total manager composite and will be used in later analyses. In essence, these scores could be considered a profile of fit of a single manager against all other manager's. In almost every case each manager's correlation with the composite is significantly positive.

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Insert Table 10d about here

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From a dyad perspective, these results would reveal a quasi-dyadic relationship on the level of agreement (as a congruence score) for each of the individual subordinates and the composite of informants. To give further support to the dyadic approach for work values a third set of scores was constructed by taking the average of each subordinate's POF and their respective supervisor's POF. This new profile of

scores is presented in Table 10e and results in a set of dyad means similar to that utilized for the leader-member model. These means are also used in the predictor model analysis.

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Insert Table 10e about here

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Table 11 shows the intercorrelations of the two dyad work values scores of manager by subordinate POF (**MGR\_SUB**) and a dyad mean (**DYADPOF**) with the leader-member and outcome network of variables.<sup>24</sup> Noteworthy in these correlations is the lack of any significant association with the leader-member dimensions such that, should Hypothesis 8 prove to be supported it can be said that the two models are independent of one another. Also, the significant correlation between **MGR\_SUB** and **DYADPOF** is as expected, but the magnitude is not so high where there is a need to be concerned with multicollinearity. In general, the work values dyad profiles appear to be independent measures which can be utilized in further predictor analysis.

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Insert Table 11 about here

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<sup>24</sup> A manager by manager (**MGR\_MGR**) profile correlation score is only used in calculating the **DYADPOF**. The **DYADPOF** is the average of each subordinate's score (**MGR\_SUB**) and the **MGR\_MGR** score.

**Direct effects model.** Returning now to the original formulation of the general model and to Hypotheses 7a thru 7d, it is now possible to analyze the direct effects of the revised work values model on each of the outcome variables. Tables 12a thru 12c show the results of the stepwise regression analyses performed on each of the outcome variables and each of the two dyadic work values scores (**MGR\_SUB** and **DYADSUB**) as regressors.

The results in Table 12a show no support for Hypothesis 7a regarding the work values and subordinate performance. Table 12a additionally shows the results for Hypothesis 7b and indicates strong support for the effects of congruence of work values on organizational commitment, as was expected. These results agree with Meglino et al. (1992), even though Chatman and her colleagues were unable to support their hypotheses regarding this relationship. The total amount of variance explained by the work values scores for organizational commitment is represented by a total R-square of .11 ( $p < .002$ ;  $F = 6.679$ ).

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Insert Table 12a about here

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Hypothesis 7c, as shown in Table 12b, likewise indicates support for the congruence of work values on turnover intentions with a significant F value ( $p < .01$ ;  $F = 4.91$ ) and an R-square of .08. For Hypothesis 7d, presented in Table 12c, support is again shown for the predictor measures of work value congruence on job

satisfaction ( $p < .003$ ;  $F = 6.27$ ;  $R\text{-square} = .11$ ).

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Insert Table 12b about here

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Support has been shown for the direct effects of work value congruence on three of the four outcomes, with the exception being subordinate performance. This finding replicates and extends the earlier findings of Chatman (1988) and her colleagues and those of Meglino et al. (1992). The present formulation of the work values congruence model by far has better utility as a measure of work values than the dimensionalized model previously examined.

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Insert Table 12c about here

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**Integrative model.** The work values congruence model's overall contribution to the general model is the final step in these analyses. Through the use of hierarchical multiple regression a determination can be made as to the contribution of work values to the general model. This was represented by Hypothesis 8 and depicted in Tables 13a thru 13d. The effects of the leader-member variables were controlled for by entering them into the regression equation first with the values scores entered last in a stepwise selection approach.

Work values congruence makes no contribution in explaining additional

variance for the subordinate performance outcome (see Table 13a). The previously established leader-member dimensions on this outcome variable remain as the best overall predictors in the general model.

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Insert Table 13a about here

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Tables 13b thru 13c indicate that the work values congruence measures do significantly contribute to the general model over and above subordinate competence on both organizational commitment and turnover intentions.

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Insert Tables 13b and 13c about here

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Finally, the contribution of the work values model over the leader-member model on job satisfaction is significant for both profiles (see Table 13d). The previously established leader-member dimensions of leader attention and quality of exchange still remain significant contributors to the variance explained. Work values increased the R-square by .08 ( $p < .001$ ).

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Insert Table 13d about here

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These three variables substantially support Hypothesis 8 with the exception of subordinate performance. In addition to the above, it was tested and found that there were no direct effects of work values on any of the leader-member dimensions.

### **Summary**

The overall integrated model was found to be greatly enhanced by the inclusion of a work values profile model. With the exception of subordinate performance, work values indicate a significant relationship as predictors of outcomes, both as a direct effect and as an enhancement to the leader-member model. Chapter 5 will review the above findings for conclusions which can be drawn.

## CHAPTER 5

### Discussion

Chapter 5 considers some of the conclusions which may be drawn from the results presented in Chapter 4. This discussion evolves around the general model in Figure 6 and each of its sub-components. The presentation follows the order of the hypotheses in the previous chapter to answer three generalized research questions which have been explored in conjunction with the general model: (1) Is the appropriate level of analysis for these constructs at the dyad level? (2) Does empirical evidence exist such that previously researched leader-member exchange (LMX) measures of quality of exchange and leadership attention are shown to be less important as predictors than measures of competence, loyalty, and liking? (3) Does empirical evidence support the idea that the social context of the organization acts as an enhancement or a filter for the predictability of the leader-member relationship? After a discussion of each component model hypotheses a summary of the conclusions is given. This chapter ends with an assessment of the study's limitations and its practical applications. Implications for future research are integrated in the text.

#### **Dyad Relevance**

**Leader-member exchange model.** Before beginning the detailed discussion it is first important to review the conclusions which can be drawn concerning the level at which each construct is operating. Referring to the summary in Table 8 for each of

the pairs of variables examined by WABA I and WABA II analyses, the leader-member variables on competence, loyalty, and liking can be considered as operating at the dyad level of analysis. It is also useful to consider the criteria established by Yammarino and Dubinsky (1992) in Table 1. The conclusion which can be made for this triad of leader-member variables would be in line with an "ideal" view of *Leader-Member Exchange (LMX)*.

Leadership attention (LA) and quality of exchange (QLMX) results, however, are not so clearly defined. It appears that the strongest relationships for these two variables are with competence and liking for the ideal leader-member exchange. Attention and quality taken by themselves are operating somewhat differently, with equivocal conditions at both the dyad and group levels. Yammarino and Dubinsky (1992) classify this combination of results as an "*Information Processing Approach*." It is more likely that for this set of dimensions individual differences are the operative frame of reference, and the dyad is merely a convenient mechanism from which to express any differences.

The relationship of QLMX and LA with loyalty shows a between-dyad effect and an equivocal group effect which can be explained by the "*Balanced Interpersonal Relationship*," described by Yammarino and Dubinsky (1992). This type of relationship primarily exhibits characteristics from a general equity theory viewpoint. Membership within the group is irrelevant to the disposition of the relationship and the dyadic exchange is different from dyad to dyad.

For superior/subordinate satisfaction no consistent results exist among the bivariate relationships. For this particular dimension the value of a multiple levels approach is truly expressed. Without the utilization of WABA and the combined decision rules of Dansereau et al. (1984) and Yammarino and Dubinsky (1992), a researcher could erroneously conclude a bivariate relationship at whichever level is being examined based solely on the total correlations. Even though the total correlation of SATSFACT with every other dimension appears to be significant, with most pairs having very high magnitudes, WABA results preclude any decision as to its appropriate operating level. Only one bivariate relationship, quality with satisfaction, appears to be an ideal LMX. Other relationships with SATSFACT appear to be at the individual level, a non-LMX dyad, or inexplicable in nature.

In general, support can be shown for the LMX model operating at the dyad level of analysis with the following qualifications. Competence, loyalty, and liking dimensions exhibit the strongest dyad level configuration. For the traditional LMX dimensions the ideal dyad level is less conclusive. The superior/subordinate satisfaction dimension fails to support a dyad level interpretation and is dropped from further consideration. Even though this conclusion regarding SATSFACT is specific to this study, further development of the construct should be undertaken and tested. It is not known whether the SATSFACT instrument has been utilized elsewhere in a matched report procedure, such as in this study, it is quite possible the instrument may not be suitable to this approach.

**Outcomes models.** WABA single level of analysis revealed that the outcome measures are not operating at the group level. However, evidence is inconclusive to say for certain that these measures are operating at the dyad level when it is possible they could be operating at the individual level of analysis. This is one weakness of single level research. Given this, caution must be expressed as to the conclusions regarding the dyadic nature of organizational commitment, turnover intentions, and job satisfaction. For these criterion measures, it has been concluded to continue with the investigation at the dyad level with this added caveat. Future research might consider collecting bi-directional data for all criterion measures.

**Work values model.** Given the interpretation which one can draw from utilizing a combined Dansereau et al. (1984) and Yammarino and Dubinsky (1992) classification system, the only conclusion that could have been made for the dimensionalized work values model was that it did not operate at the dyad level of analysis. Since this research endeavor is not immediately concerned with alternative active levels of analysis, the conclusion was to drop the dimensionalized model from further consideration and to pursue an alternative approach.

Post-hoc analysis of the work values model arrived at a much more parsimonious solution for constructing a measure of work value congruence at the dyad level. The congruity of a superior's and subordinate's perceptions on the structure of work values implicitly lends itself to a dyad level of analysis. As derived in Chapter 4, work values can be described in dyadic terms and therefore it was

appropriate to use a revised measure for predictive purposes.

**Summary.** With the exception of superior-subordinate satisfaction all three component models can be said to operate at the dyad level of analysis in direct support of Hypotheses 1 thru 5. Given these conclusions the predictability of the two sub-component models, leader-member exchange and work values, on a criterion model was deemed appropriate.

### **Predictability of component models.**

**Leader-member exchange.** Considering the dimensions of this model as a network allows for more interesting interpretations than could have been drawn from simple bivariate relationships. The dimensions for the LMX component model include competence, loyalty, liking, quality of exchange, and leader attention. The results of the hierarchical multiple regression analysis revealed a triad of competence, loyalty, and liking as better predictors of subordinate performance, over the traditional measures and in partial support of Hypothesis 6c. Quality of exchange and leader attention were unable to significantly contribute to any additional variance. Similar findings have been previously reported by Brownlee (1991) and partially by Wayne and Ferris (1990). Brownlee's (1991) findings, however, show a significant additional contribution coming only from competence, as indicated by the non-significant regression coefficients for loyalty and liking.

Similar also to Brownlee's (1991) study, was the finding that competence significantly predicted organizational commitment and turnover intentions, lending

only minimal support in this study for Hypotheses 6b and 6d. In this particular organization it appears that the subordinate's commitment to the organization and intentions to quit largely depend on their perceived level of competence. Neither loyalty nor liking by the superior for the subordinate appear to enter into decisions made by subordinates regarding their relationship with the organization. Although actual quits would have been a better organizationally related criterion, the cross-sectional nature of this study precludes any speculation as to actual turnover relationships. Future analysis of quit rates via survival analysis (Sheridan, 1992), upon availability of turnover data, would give more accurate conclusions as to these relationships.

For the relationships of QLMX and LA with organizational commitment and turnover intentions the results herein do not concur with a leader-member exchange model. According to Yammarino and Dubinsky (1992) the individual is most responsible for decisions regarding their level of commitment and intentions to stay. Affective beliefs about how the superior treats the subordinate in a dyadic exchange would appear to have no influence on critical organizationally related decisions. Subordinate's decisions apparently relies on the level of competence felt by the subordinate and, more importantly, reinforced by the supervisor. Highly competent individuals have higher commitment and lower intentions to quit.

Job satisfaction was hypothesized as also being a significant outcome for the leader-member network, yet only the traditional measures of QLMX and LA were

shown to be significant predictors. These findings have been previously supported by Brownlee (1991) who also found LMX quality to be a significant predictor of work satisfaction. Even though the intercorrelations between job satisfaction and each of the leader-member predictors indicated significance, the dimensions of competence, loyalty, and liking for this study make no contribution to explaining additional variance above and beyond the traditional measures. It is not completely clear why these traditional measures of LMX show a significant prediction of job satisfaction, when none of the other LMX measures are significant. The triad of newer measures appear to be better predictors of the behaviorally (albeit affective) oriented criterion but not of the satisfaction dimension. Since competence appears to be the driving force behind the predictors of other outcomes it would seem that employees are reacting with positive job behaviors when they perceive themselves as being highly competent, but they gain satisfaction based on a completely different set of criteria. Given this scenario, it would have been expected that **AFFECT** and **LIKING** would have also predicted job satisfaction, but it did not.

*Summary.* Of the new dimensions of the LMX model examined here, competence appears to be the most potent predictor. In the case of commitment and turnover intentions, competence is the only significant predictor, yet competence is not the driving force behind the subordinate's individual satisfaction with their job. These findings give partial support to Hypotheses 6a thru 6d and to the use of these dimensions in future LMX research.



This version of the LMX model attempted to enhance previous versions by examining a combination of new and traditional leadership constructs. Some final conclusions can therefore be drawn:

- Subordinate competence is a very strong predictor of various behaviorally oriented outcomes and should continue to be examined as a leader-member exchange dimension.
- Loyalty and liking are supportive of subordinate performance but should be re-examined as to their causal connection with other outcomes.
- Quality of exchange and leadership attention were only supportive of job satisfaction and not any of the behaviorally oriented criterion. Further examination as to the kind of attention a leader gives their subordinates, and the exact nature of the exchange should be pursued.
- The above findings are valuable enhancements to a multidimensional LMX framework and should be included in any future LMX research.

**Work values.** Only after careful reconsideration of the work values model and a change in the operationalization of the construct, derived from post-hoc analysis, was a framework available for use in the general model. The revised work values model includes two dimensions of a parallel form, (1) a superior/subordinate work values profile, and (2) a dyad average of work values as a profile of congruence. For each of the criterion measures, with the exception of subordinate performance, the two work values measures significantly predicted (1) organizational commitment, (2) turnover intentions, and (3) job satisfaction. For subordinate performance, however, there were no significant predictors from the revised work

values model. These results replicated and extended the findings of Chatman and her colleagues (Chatman, 1988; Chatman, 1991; O'Reilly et al., 1991) even though these researchers were unable to support a prediction of organizational commitment.

However, in line with this study's findings, commitment was found to be a viable criterion of work value congruence by Meglino et al. (1992) using a similar work values profile measure.

The inability of the revamped work values measures to predict subordinate performance raises speculation as to the whether strong congruent work values would enhance employee performance. Much of the current research in the predictability of work values has been in the area of socialization (Chatman, 1988, 1991; O'Reilly et al., 1991), facet satisfaction (Meglino et al., 1992), or the development of work values measures, only a few studies have examined this important issue. Meglino et al. (1989) found similar results as these and contend that it is probably naive to relate values congruence with certain task dependent jobs. They go on to explain that work values congruence is thought to be an inducement to interpersonal relations and not as enhancements to individual performance. Much more research into this issue is required before discounting the values-performance relationship. Measures of actual performance versus perceived performance across time would probably give a better understanding to this relationship. Work values do appear to have usefulness in the predictability of other important criterion in partial support of Hypotheses 7a thru 7d.

**Summary.** Work values were hypothesized to be significant predictors of

critical criterion measures. With the exception of subordinate performance the revised work values model was highly predictive of all outcome measures. Future studies should concentrate on the effects of work values on critical objective measures of performance and also the dimensionality of work values.

### **Integrative Model**

The general model hypothesis states that work values will predict outcomes even after holding constant the leader-member model. The results clearly supported this hypothesis for all criteria except subordinate performance. Changes in R-square were a low of .05 for job satisfaction to a high of .11 for organizational commitment ( $F$  values significant at  $p < .001$ ). Therefore, it can be said that work values (from a POF perspective) significantly adds to the predictive power of the leader-member exchange model by explaining additional variance then leader-member exchange alone.

The three research questions stated at the beginning of this chapter have been partially answered. From the above results, evidence does indeed exist that the dyad is the appropriate level of analysis for these constructs. Also, there is support for the addition of newer dimensions to the leader-member model. Competence is the most powerful addition, with loyalty and liking of secondary importance. The role of the traditional measures of QLMX and LA are less important, yet there is still reason to retain them to capture the maximum amount of variance explained.

The last research question addresses the social context of the organization. The results show that additional variance can be explained over and above the LMX model

with the inclusion of a work values model. The importance of the social context as part of any research endeavor, especially leader-member exchanges, should be made an integral part of a researcher's theoretical model. Researchers must begin to recognize the environment in which our constructs are examined and that they can lead to critical amounts of unexplained variance.

**Summary.** For leader-member interactions the very nature of the relationship should be dyadic. The evidence reported in the WABA analysis indicates that there is considerable support for the leader-member construct at the dyad level. The criterion measures and the work values measure are assumed to be operating at the dyad level with the caveat that future research must find ways to reduce the error caused by quasi-dyad measures. One way, as suggested by Brownlee (1991), is to collect all of the outcome measures with reciprocal viewpoints while at the same time collecting individual level data. This could be done by asking the superior's viewpoint on the subordinate's intentions to quit, level of commitment, job satisfaction and then surveying subordinates. For the work values, researchers should explore new ways in which they can measure both the level of congruence and the reciprocity within dyad pairs. A combined ranking and rating system similar to the one Meglino et al. (1992) utilize may be one way for future research to achieve a truer dyadic instrument.

### **Conclusions**

This research began by questioning traditional methodologies for the investigation of leadership. There has been a need to verify the functional

relationships which are naturally occurring between a leader and his/her subordinates. This research endeavor has attempted to address the issue that the interactional exchange process operating between a leader and his/her direct subordinate significantly affects the subordinate's organizationally related behavior. Many studies have been deficient in the consideration of the social context in which the leader-member relationship exist.

In addition to the above concerns this research has also examined the appropriateness of the level of analysis at which the exchange process operates. To accomplish this a dual classification system was utilized by which the researcher can identify the operating level of analysis and alternative interpretations of the data simultaneously. The basis for this was a combining of the classification systems utilized by Yammarino and Dubinsky (1992) and Dansereau et al. (1984). How researchers interpret their findings and the findings of previous research can be modeled by the use of these classification systems. Implementing a multi-method approach to the examination of leader-member relationships will help narrow the specificity of the leader-member exchange relationship. Currently it would be in the best interest of leadership researchers to continue to pursue this expanded model.

Dienesch and Liden (1986) provided the impetus for researchers to more closely examine the construct of leader-member exchange, calling for specific development of a multi-dimensional framework. This research effort attempted to answer some of those questions by specifically including dimensions Dienesch and

Liden conceptualized in conjunction with those previously used in the LMX framework (see Brownlee, 1991). This new dimensionality includes competence, loyalty, and liking and each of these were found to be predictive of several outcomes. In fact, competence was found to be the largest contributor to explaining the leader-member exchange process. Traditional measures of quality of exchange and leader attention continued to predict significant variance but only for job satisfaction. For the traditional measures, problems have persisted with researchers dichotomizing or trichotomizing quality of exchange with mixed results. This research has answered the call to examine alternative measures of the leader-member process and the overall configuration of the extant relationships.

The most important aspect of this research study has been the additional consideration of the social context in which the leader-member interaction exists. Work values congruence was found to significantly add to the variance over and above that which was explained by the LMX model alone. This confirms the previous conjecture made by Dienesch and Liden (1986) concerning the influence of environmental factors. As researchers continue to study the LMX framework they should include these factors as part of their theoretical conceptualizations.

Finally, future research should not neglect the importance of boundary conditions, especially the social desirability inherent in self-report instrumentation. Even though a measure of social desirability was not influential on the dyad measures for this study, the issue remains important, particularly on individually sensitive

outcome measures.

### **Limitations of the Study**

Even with careful conceptualization and analytical planning there will always be several limitations to any research endeavor. Not considered serious, these limitations can affect the interpretation of the findings and alter expected results.

The most obvious limitation is the cross-sectional nature of this study. Not only does it affect the findings by not having temporal measures upon which to make comparisons, but in this particular instance can limit the interpretation of the work values findings. Work values are considered stable across time and verification of this is important for a thorough understanding of the integrated model. The only means by which a researcher can truly understand the complex nature of work values and their influences on the leader-member interactional process is through the execution of longitudinal research. Schein (1985) noted the importance of the leader in the transmission of critical organizational values to subordinates over time, while Chatman (1988) speaks to the importance of work values in the socialization process for new recruits, also a temporal effect. Longitudinal research is the only means by which to capture the evolving process of the component constructs, and it is an important consideration for future research.

Research collected at the dyad level of analysis has its costs. In order to be able to match the leader's report with the subordinate's report it is essential to identify each member of the dyad. A non-anonymous sample can have serious ramifications

for response sets similar to social desirability. A review of the means on the matched reports for supervisors compared to subordinates can give a general impression as to the effects of the non-anonymous data. It would be expected that supervisors and subordinates would closely match in their responses to each dimension. Large mean differences can be a clear indication that one or the other member of the dyad is overestimating their perceptions of the relationship, possibly in reaction to having to identify themselves on the survey forms. This is an unavoidable problem with "ideal" dyad data collection and future research should take steps to assure the anonymity of the subjects. One way would be to provide a coding scheme for the collection of data whereby the name of the individual is not known and matching reports are identified by only an ID number.

Although this sample represented a cross-section of the organization, selection of the managers was systematic and not random. The reason for this was to assure that a cross-sectional sample of managers was chosen. A review of the demographics of the subjects seems to indicate that selection bias of subjects was not a problem. It is imperative for future research efforts to take every step possible to avoid committing questionable research by not checking for these biases.

### **Applications for Praxis**

This research endeavor has been executed under the auspices of a management development program for the subject organization. Its intent was to establish a core set of instruments which can be utilized on an ongoing basis for the continued



development of the current managerial staff and for future aspiring managers. The ability to identify dimensions in the leader-member exchange processes, such as a strong indicator of competence, allows training and development programs to concentrate on specific areas for the improvement in manager/subordinate relations.

Another important factor thought to be essential to the organization is the development of a set of congruent work values which can identify individuals, groups, or departments which may be divergent from a value structure desired by the organization. Since managers are key transmitters of the value structure (Schein, 1985), training can be implemented as to the proper means for disseminating these values. This organization has already taken the crucial step for implementing academic research into mainstream organizational practices.

Leader-member exchanges have become an important factor in organizational research in general and leadership research specifically. A proper understanding of the exchange which commonly occurs between a manager and subordinate can lead to the development of positive and meaningful interactions. Further study of this leadership phenomenon would help assure the cumulative knowledge regarding the specifics of what can enhance leader-member relationships.

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**APPENDIX - A**  
**SURVEY INSTRUMENTS**



## LEADER-MEMBER RELATIONS

During this session we would like you to share some very important information about your work environment as you experience and see it. These questions are part of a major management development project that the \_\_\_\_\_ is designing. Please read each question carefully and answer as appropriately as you can. There are no "right" or "wrong" answers to these questions. Your answers will help show what is happening in this organization. If this study is to be helpful, it is important that you answer each question as thoughtfully and frankly as possible. This is NOT a test! Read each question and mark an 'X' in the box that best represents your choice. Do not think too long about any question. If you don't understand something, please feel free to call for help!

All individual responses to questions are completely **CONFIDENTIAL**. My staff and I will be the only people who see this survey. The responses to the survey will be summarized for work groups large enough so that your individual response cannot be identified.

### Please Remember

1. Most questions can be answered by filling in one of the check boxes. If you don't find the exact answer that fits your case, use the closest one. Please answer all questions.
2. Please be honest and candid in your response. This information is completely confidential.
3. Please use a pencil to answer the questions. If you need to erase something, please do it cleanly.
4. Make heavy X's that fill the check boxes. Light marks might not be read properly by the computer.

Please place your name in the box below along with the subordinate's name about whom you are answering these questions.

<p>YOUR NAME:</p> <hr/>
<p>SUBORDINATE'S NAME:</p> <hr/>

**For each statement below, please mark only the box to the right which best relates the extent to which each statement is representative of your current work experiences.**

**Very Little Extent**      **Little Extent**      **Some Extent**      **Great Extent**      **Very Great Extent**

- To what extent does this subordinate feel you are friendly and easy to approach?
- When you talk with this subordinate, to what extent does he/she think you are paying attention to what he/she is saying? .....
- To what extent do you think this subordinate believes you are willing to listen to his/her problems? .....
- How much do you think this subordinate believes you encourage people to give their best effort? .....
- To what extent do you think this subordinate believes you maintain high standards of performance? .....
- To what extent do you think this subordinate believes you set an example by working hard? .....
- To what extent do you think this subordinate believes you encourage subordinates to take action without waiting for detailed review and approval? .....
- To what extent do you think this subordinate believes you show them how to improve their performance? .....
- To what extent do you think this subordinate believes you provide the help he/she needs so that he/she can schedule work ahead of time? .....
- To what extent do you think this subordinate believes you offer new ideas for solving job- related problems? .....
- To what extent do you think this subordinate believes you encourage the persons who work for you to work as a team? .....
- To what extent do you think this subordinate believes you encourage the persons who work for you to exchange opinions and ideas? .....
- When you have problems related to the work, to what extent does this subordinate feel you use group meetings to talk things over with other subordinates and get their ideas? .....
- To what extent is the way this subordinate does his/her job in line with your preferences? .....

**For each statement below, please mark only the box to the right which best relates your level of agreement**

**Strongly Disagree**      **Slightly Disagree**      **Slightly Agree**      **Agree**      **Strongly Agree**

- I feel that this subordinate is thoroughly familiar with his/her job tasks .....
- This subordinate would make a fine model for trainees to emulate in order to learn the skills he/she would need to succeed. ....
- This subordinates's job is manageable and any problems tend to be solved by him or her. ....



For each statement below, please mark only the box to the right which best reflects your level of agreement.

Strongly Disagree      Disagree      Slightly Disagree      Slightly Agree      Agree      Strongly Agree

I honestly believe that this subordinate has all the skills necessary to perform his/her job tasks well. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This subordinate meets his/her own personal expectations for expertise in doing his/her job. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problems here are easy to solve once you understand the various consequences of your actions, a skill this subordinate has. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I defend this subordinate's decisions to other people. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give public support to this subordinate's ideas. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am open to this subordinate's suggestions and ideas. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I expose this subordinate's mistakes to other people. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I show a great deal of <u>loyalty</u> to this subordinate. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a great deal of <u>admiration</u> for this subordinate. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a great deal of <u>respect</u> for this subordinate. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I <u>like</u> this subordinate. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I listen to this subordinate when he/she has something important to say. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I set clear work goals for this subordinate. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am fair in appraising this subordinate's job performance. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I treat all my subordinates consistently. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I help this subordinate to get his/her job done. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give this subordinate clear instructions regarding his/her work. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I inform this subordinate about work changes ahead of time. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I follow through to get problems solved for my subordinates. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand the problems this subordinate might run into doing his/her job. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel I am technically competent. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give this subordinate plenty of time to do the job right the first time. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I clearly define this subordinate's job responsibilities. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I provide input into decisions that affect this subordinate's work. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I provide information regarding my assessment of this subordinate's job performance. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**For each statement below, please mark only the box to the right which best reflects your level of agreement.**

**Slightly Slightly**  
**Disagree Agree**  
**Strongly Disagree Agree Strongly Agree**

I provide assurance that I have confidence in this subordinate's integrity, motivation, and ability. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am attentive to this subordinate's feelings and needs. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I provide information about the current and future state of the unit and/or division and this subordinate's position in the unit. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am supportive of this subordinate's actions and ideas. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I provide information about the scope of this subordinate's job duties and his/her authority. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I provide freedom for this subordinate to do his/her job. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give serious consideration to this subordinate's suggestions and ideas. .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I provide encouragement for this subordinate to solve problems and generate ideas. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I provide explanations for the reasons behind programs and practices to this subordinate. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am flexible about evolving and changing this subordinate's job .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I recognize this subordinate's potential .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regardless of my formal authority, I would use my power to help this subordinate solve work problems .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regardless of my formal authority, I would bail this subordinate out of a problem at my expense if he/she really needed it .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This subordinate would defend and justify my decisions if I were not present ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**For each statement below, please mark only the box to the right which best reflects your level of satisfaction.**

**Slightly Slightly**  
**Disatisfied Satisfied**  
**Strongly Disatisfied Satisfied Strongly Satisfied**

How satisfied are you with this subordinate's <u>overall</u> job performance? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied are you with the <u>way</u> this subordinate performs his/her job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied are you with the <u>results</u> of how this subordinate preforms his/her job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## MEMBER-LEADER RELATIONS

During this session we would like you to share some very important information about your work environment as you experience and see it. These questions are part of a major management development project that the \_\_\_\_\_ is designing. Please read each question carefully and answer as appropriately as you can. There are no "right" or "wrong" answers to these questions. Your answers will help show what is happening in this organization. If this study is to be helpful, it is important that you answer each question as thoughtfully and frankly as possible. This is NOT a test! Read each question and mark an 'X' in the box that best represents your choice. Do not think too long about any question. If you don't understand something, please feel free to call for help!

All individual responses to questions are completely **CONFIDENTIAL**. My staff and I will be the only people who see this survey. The responses to the survey will be summarized for work groups large enough so that your individual response cannot be identified. These averages will be shared with your supervisor to help him/her improve!

### Please Remember

1. Most questions can be answered by filling in one of the check boxes. If you don't find the exact answer that fits your case, use the closest one. Please answer all questions.
2. Please be honest and candid in your response. This information is completely confidential.
3. Please use a pencil to answer the questions. If you need to erase something, please do it cleanly.
4. Make heavy X's that fill the check boxes. Light marks might not be read properly by the computer.

Please place your name in the box below along with your IMMEDIATE supervisor's name.

<p>YOUR NAME:</p> <hr/>
<p>SUPERVISOR'S NAME:</p> <hr/>

**For each statement below, please mark only the box to the right which best relates the extent to which each statement is representative of your current work experiences.**

	Very Little Extent	Little Extent	Some Extent	Great Extent	Very Great Extent
To what extent is your supervisor friendly and easy to approach? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When you talk with your supervisor, to what extent does he/she pay attention to what you are saying? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent is your supervisor willing to listen to your problems? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much does your supervisor encourage people to give their best effort? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent does your supervisor maintain high standards of performance? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent does your supervisor set an example by working hard? ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent does your supervisor encourage subordinates to take action without waiting for detailed review and approval? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent does your supervisor show you how to improve your performance? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent does your supervisor provide the help you need so that you can schedule work ahead of time? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent does your supervisor offer new ideas for solving job-related problems? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent does your supervisor encourage the persons who work for him/her to work as a team? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent does your supervisor encourage the persons who work for him/her to exchange opinions and ideas? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When your supervisor has problems related to the work, to what extent does he/she use group meetings to talk things over with subordinates and get their ideas? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent is the way you do your job in line with your boss's preferences? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**For each statement below, please mark only the box to the right which best relates your level of agreement.**

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
I feel that I am thoroughly familiar with my job tasks. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe I would make a fine model for trainees to emulate in order to learn the skills he/she would need to succeed. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My job is manageable and any problems tend to be solved by me. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I honestly believe that I have all the skills necessary to perform my job tasks well. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**For each statement below, please mark only the box to the right which best relates your level of agreement.**

Slightly Disagree    Slightly Agree  
 Strongly Disagree    Disagree    Slightly Disagree    Slightly Agree    Agree    Strongly Agree

I meet my own personal expectations for expertise in doing my job.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problems here are easy to solve once you understand the various consequences of your actions, a skill I believe I have. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor defends my actions to other people.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor gives public support to my ideas.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor is open to my suggestions and ideas.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor exposes my mistakes to other people. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor shows a great deal of <u>loyalty</u> towards me.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor has a great deal of <u>admiration</u> for me.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor has a great deal of <u>respect</u> for me. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor <u>likes</u> me.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor listens when I have something important to say.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor sets clear work goals.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor is fair in appraising my job performance. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor treats all subordinates consistently.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor helps me to get my job done. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor gives me clear instructions regarding my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor informs me about work changes ahead of time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor follows through to get problems solved.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor understands the problems I might run into doing my job. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor is technically competent. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor gives me plenty of time to do the job right the first time.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor clearly defines my job responsibilities.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor allows me to give input into decisions that affect my work given by him/her. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My immediate supervisor gives me plenty of information about his assessment of my job performance. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**For each statement below, please mark only the box to the right which best relates your level of agreement.**

Strongly Disagree      Disagree      Slightly Disagree      Slightly Agree      Agree      Strongly Agree

- My immediate supervisor has confidence in my integrity, motivation, and ability. ....
- My immediate supervisor pays attention to my feelings and needs. ....
- My immediate supervisor gives me plenty of information about the current and future state of our unit and/or division and my position in the unit. ...
- My immediate supervisor supports my actions and ideas. ....
- My immediate supervisor gives me plenty of information about the scope of my job duties and authority. ....
- My immediate supervisor gives me plenty of freedom in doing my job. ....
- My immediate supervisor gives serious consideration to my suggestions and ideas. ....
- My immediate supervisor encourages me to solve problems and generate new ideas. ....
- My immediate supervisor gives me thorough explanations for the reasons behind programs and practices. ....
- My immediate supervisor is flexible about evolving and changing my job .....
- My immediate supervisor recognizes my potential .....
- Regardless of my supervisor's formal authority, he/she would use his/her power to help me solve work problems .....
- Regardless of my supervisor's formal authority, I can count on my supervisor to bail me out at his/her expense when I really need it .....
- I have enough confidence in my supervisor that I would defend and justify his or her decisions if he or she were to present to do so .....

**For each statement below, please mark only the box to the right which best reflects your level of satisfaction.**

Strongly Dissatisfied      Dissatisfied      Slightly Dissatisfied      Slightly Satisfied      Satisfied      Strongly Satisfied

- How satisfied do you think your immediate supervisor is with your overall job performance? .....
- How satisfied do you think your immediate supervisor is with the way in which you perform your job? .....
- How satisfied do you think your immediate supervisor is with the results of how you perform your job? .....





## Background Information

*The response format for this set of questions is true or false. Please fill in the appropriate box to the right.*

Name: \_\_\_\_\_

	True   □	False   □
It is sometimes hard for me to go on with my work if I am not encouraged.	□	□
I sometimes feel resentful when I don't get my way. ....	□	□
On a few occasions, I have given up doing something because I thought too little of my ability. ....	□	□
There have been times when I felt like rebelling against people in authority even though I knew they were right. ....	□	□
No matter who I'm talking to, I'm always a good listener. ....	□	□
There have been occasions when I took advantage of someone. ....	□	□
I'm always willing to admit it when I make a mistake. ....	□	□
I sometimes try to get even, rather than forgive and forget. ....	□	□
I am always courteous, even to people who are disagreeable. ....	□	□
I have never been irked when people expressed ideas very different from my own. ....	□	□
There have been times when I was quite jealous of the good fortune of others. ....	□	□
I am sometimes irritated by people who ask favors of me. ....	□	□
I have never deliberately said something that hurt someone's feelings. ....	□	□

*For each statement below, please mark only the box to the right which best reflects your level of agreement.*

	Strongly Disagree   □	Disagree   □	Slightly Disagree   □	Slightly Agree   □	Agree   □	Strongly Agree   □
I feel that I'm a person of worth, at least on an equal basis with others. .	□	□	□	□	□	□
I feel that I have a number of good qualities. ....	□	□	□	□	□	□
All in all, I am inclined to feel that I am a failure. ....	□	□	□	□	□	□
I am able to do things as well as most other people. ....	□	□	□	□	□	□
I feel I do not have much to be proud of. ....	□	□	□	□	□	□
I take a positive attitude toward myself. ....	□	□	□	□	□	□
On the whole, I am satisfied with myself. ....	□	□	□	□	□	□
I wish I could have more respect for myself. ....	□	□	□	□	□	□
I certainly feel useless at times. ....	□	□	□	□	□	□



**For each statement below, please mark only the box to the right which best reflects your level of agreement.**

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
At times, I think I am no good at all.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I talk up this organization to my friends as a great organization to work for.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find that my values and the organization's values are very similar.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am proud to tell others that I am part of this organization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This organization really inspires the very best in me in the way of job performance. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am extremely glad that I chose this organization to work for, over others I was considering at the time I joined. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For me this is the best of all possible organizations for which to work. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is very likely that I will actively look for a new job in the next year. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often think about quitting. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I will probably look for a new job in the next year. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**For each statement below, please mark only the box to the right which best reflects your level of satisfaction.**

	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Strongly Satisfied
<b>On my present job, this is how I feel about . . .</b>						
The chance to do different things from time to time.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The way my boss handles his/her workers. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The competence of my supervisor in making decisions.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The way my job provides for steady employment. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The chance to do things for other people. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The chance to do something that makes use of my abilities. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The way company policies are put into practice. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My pay and the amount of work I do. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The chances for advancement on this job.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The freedom to use my own judgment. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



For each statement below, please mark only the box to the right which best reflects your level of satisfaction.

Slightly Dissatisfied    Slightly Satisfied  
 Dissatisfied    Satisfied  
 Strongly Dissatisfied    Strongly Satisfied

On my present job, this is how I feel about . . .

The chance to try my own methods of doing the job. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The working conditions. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The way my co-workers get along with each other. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The praise I get for doing a good job. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The feeling of accomplishment I get from the job. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied are you with your job in general? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following information will be used to combine responses into meaningful groups for reporting purposes ONLY. Please complete all questions:

Your gender:  
 Male .....   
 Female .....

Which best describes your ethnic background? (Check one):  
 Asian .....   
 Black .....   
 White .....   
 Hispanic .....   
 Other .....

Year of birth: 19 \_\_\_\_\_

Year you joined.... (Indicate each)  
 This organization ..... 19 \_\_\_\_\_  
 Your current department ..... 19 \_\_\_\_\_  
 Your current position ..... 19 \_\_\_\_\_

Length of service under your current supervisor.  
 (Check one)  
 Less than one year .....   
 One (1) year to five (5) years .....   
 Greater than five (5) years .....

Education level. (Check one)  
 Up to High School diploma .....   
 High School diploma .....   
 Some college .....   
 Associate's Degree .....   
 Bachelor's Degree .....   
 Masters/ Ph.D. ....

My position title is: \_\_\_\_\_

Were you hired by your current supervisor?  
 Yes .....   
 No .....

Number of people who report to you: \_\_\_\_\_

Predominant Work location. (Check one)  
 Roanoke .....   
 New River Valley .....   
 Other .....

When was your last (most recent) formal performance evaluation conducted? (Check one)  
 Less than one month ago .....   
 1 - 3 months ago .....   
 4 - 6 months ago .....   
 7 - 9 months ago .....   
 10 - 12 months ago .....   
 Over 1 year ago .....   
 Cannot recall last evaluation .....   
 Never have had an evaluation .....

On the average, how often does your immediate supervisor interact with you? (Check one)  
 Hourly .....   
 Several times a day .....   
 Once a day .....   
 2 or 3 times a week .....   
 Once a week .....   
 Other .....

I have been serving as a supervisor:  
 Since 19\_\_\_\_ or Not applicable .....



## A PROFILE OF THE

Recently managers and researchers have noted the importance of cultures within organizations. By "culture", we mean those things that are valued and shared within the organization. Important values may be expressed in the form of norms or shared expectations about what's important, how to behave, or what attitudes are appropriate.

We are interested in learning about your preferred organizational culture for the . To do this, we would like you to help us by generating a profile of those attributes (values) that you view as being most and least desirable for of .

We have provided you with a listing of 54 attributes (values) on page 2, each containing a description of one possible value or outcome that might be important in defining the culture you would prefer at .

We would like for you to take these 54 items and sort them into a set of nine categories as listed on page 3.

We recognize that sorting 54 items into nine (9) finely defined categories can be difficult therefore, it is suggested that you first check off those items on page 2 which are found to be relatively undesirable aspects for the culture of , and those items which are found to be more desirable. It is not necessary that you divide the listing evenly between desirable and undesirable but you should try to have at least 21 items in each. Then, taking first only those items you have selected as desirable, sort them into the categories on page 3 by placing only the number of items specified for each category. Now, take the items you have selected as undesirable and sort them into the categories on page 3 as you just did for the desirable items. When you have finished you should have 12 items remaining and these are to be placed in the neutral category at the bottom of page 3.

While making your selections for each category, please read each item and ask yourself the following:

***How important is it for this attribute to be a part of  
the culture at the ?***

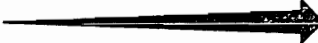



Also, please keep in mind two things while sorting the statements: (1) your first impressions about where to place an item are usually best, this saves time on trying to determine the finest quality of an item; (2) do not use any items more than once, and be certain that you have used the correct number of items per category on page three, no more and no less. Please follow the directions at each step carefully.

**THANK YOU FOR YOUR TIME.**


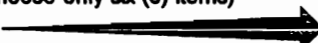
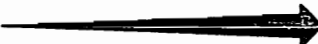
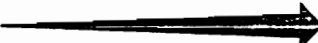
**For the following list of values, please evaluate each of the items by placing an 'X' in the box to the left if the item is a value that you believe is 'undesirable' in any organization or an 'X' in the box to the right if the item is a value that you believe is 'desirable' in any organization. It is not critical to divide the number of items in each category equally, but you should have at least 21 items in each.**

<i>Undesirable</i>	<i>Desirable</i>	<i>Undesirable</i>	<i>Desirable</i>
<input type="checkbox"/> 1. Flexibility .....	1. <input type="checkbox"/>	<input type="checkbox"/> 28. Action orientation .....	28. <input type="checkbox"/>
<input type="checkbox"/> 2. Adaptability .....	2. <input type="checkbox"/>	<input type="checkbox"/> 29. Taking initiative .....	29. <input type="checkbox"/>
<input type="checkbox"/> 3. Stability .....	3. <input type="checkbox"/>	<input type="checkbox"/> 30. Being reflective .....	30. <input type="checkbox"/>
<input type="checkbox"/> 4. Predictability .....	4. <input type="checkbox"/>	<input type="checkbox"/> 31. Achievement orientation .....	31. <input type="checkbox"/>
<input type="checkbox"/> 5. Being innovative .....	5. <input type="checkbox"/>	<input type="checkbox"/> 32. Being demanding .....	32. <input type="checkbox"/>
<input type="checkbox"/> 6. Being quick to take advantage of opportunities .....	6. <input type="checkbox"/>	<input type="checkbox"/> 33. Taking individual responsibility .....	33. <input type="checkbox"/>
<input type="checkbox"/> 7. A willingness to experiment .....	7. <input type="checkbox"/>	<input type="checkbox"/> 34. Having high expectations for performance .....	34. <input type="checkbox"/>
<input type="checkbox"/> 8. Risk taking .....	8. <input type="checkbox"/>	<input type="checkbox"/> 35. Opportunities for professional growth .....	35. <input type="checkbox"/>
<input type="checkbox"/> 9. Being careful .....	9. <input type="checkbox"/>	<input type="checkbox"/> 36. High pay for good performance .....	36. <input type="checkbox"/>
<input type="checkbox"/> 10. Autonomy .....	10. <input type="checkbox"/>	<input type="checkbox"/> 37. Security of employment .....	37. <input type="checkbox"/>
<input type="checkbox"/> 11. Being rule oriented .....	11. <input type="checkbox"/>	<input type="checkbox"/> 38. Offers praise for good performance .....	38. <input type="checkbox"/>
<input type="checkbox"/> 12. Being analytical .....	12. <input type="checkbox"/>	<input type="checkbox"/> 39. Low level of conflict .....	39. <input type="checkbox"/>
<input type="checkbox"/> 13. Paying attention to detail .....	13. <input type="checkbox"/>	<input type="checkbox"/> 40. Confronting conflict directly .....	40. <input type="checkbox"/>
<input type="checkbox"/> 14. Being precise .....	14. <input type="checkbox"/>	<input type="checkbox"/> 41. Developing friends at work .....	41. <input type="checkbox"/>
<input type="checkbox"/> 15. Being team oriented .....	15. <input type="checkbox"/>	<input type="checkbox"/> 42. Fitting in .....	42. <input type="checkbox"/>
<input type="checkbox"/> 16. Sharing information freely .....	16. <input type="checkbox"/>	<input type="checkbox"/> 43. Working in collaboration with others .....	43. <input type="checkbox"/>
<input type="checkbox"/> 17. Emphasizes a single culture throughout the organization .....	17. <input type="checkbox"/>	<input type="checkbox"/> 44. Enthusiasm for the job .....	44. <input type="checkbox"/>
<input type="checkbox"/> 18. Being people oriented .....	18. <input type="checkbox"/>	<input type="checkbox"/> 45. Working long hours .....	45. <input type="checkbox"/>
<input type="checkbox"/> 19. Fairness .....	19. <input type="checkbox"/>	<input type="checkbox"/> 46. Not being constrained by many rules .....	46. <input type="checkbox"/>
<input type="checkbox"/> 20. Respect for the individual's rights .....	20. <input type="checkbox"/>	<input type="checkbox"/> 47. An emphasis on quality .....	47. <input type="checkbox"/>
<input type="checkbox"/> 21. Tolerance .....	21. <input type="checkbox"/>	<input type="checkbox"/> 48. Being distinctive – different from others .....	48. <input type="checkbox"/>
<input type="checkbox"/> 22. Informality .....	22. <input type="checkbox"/>	<input type="checkbox"/> 49. Having a good reputation .....	49. <input type="checkbox"/>
<input type="checkbox"/> 23. Being easy going .....	23. <input type="checkbox"/>	<input type="checkbox"/> 50. Being socially responsible .....	50. <input type="checkbox"/>
<input type="checkbox"/> 24. Being calm .....	24. <input type="checkbox"/>	<input type="checkbox"/> 51. Being results oriented .....	51. <input type="checkbox"/>
<input type="checkbox"/> 25. Being supportive .....	25. <input type="checkbox"/>	<input type="checkbox"/> 52. Having a clear guiding philosophy .....	52. <input type="checkbox"/>
<input type="checkbox"/> 26. Being aggressive .....	26. <input type="checkbox"/>	<input type="checkbox"/> 53. Being competitive .....	53. <input type="checkbox"/>
<input type="checkbox"/> 27. Decisiveness .....	27. <input type="checkbox"/>	<input type="checkbox"/> 54. Being highly organized .....	54. <input type="checkbox"/>

Now that you have completed the first task, please take the items that you have ranked as being Desirable and further divide them into the categories specified below by entering each item's number in the appropriate box:

- 9. **Most Desirable:** (Choose only two (2) items)
   

- 8. **Quite Desirable:** (Choose only four (4) items)
   

- 7. **Fairly Desirable:** (Choose only six (6) items)
   

- 6. **Somewhat Desirable:** (Choose only nine (9) items)
   


Now that you have completed the above, please take the items that you have ranked on the previous page as being Undesirable and further divide them into the categories specified below by filling in their numbers:

- 4. **Somewhat Undesirable:** (Choose only nine (9) items)
   

- 3. **Fairly Undesirable:** (Choose only six (6) items)
   

- 2. **Quite Undesirable:** (Choose only four (4) items)
   

- 1. **Most Undesirable:** (Choose only two (2) items)
   


You will have some items left over.  
Place these in the twelve (12) boxes below.

- 5. **Neutral:** (Place all remaining items)
   




## A Profile of the

Recently managers and researchers have noted the importance of corporate cultures. By "culture", we mean those things that are valued and shared within the organization. Important values may be expressed in the form of norms or shared expectations about what's important, how to behave, or what attitudes are appropriate.

We are interested in learning about your existing organizational culture. To do this, we would like you to help us by generating a profile of those attributes that you view as most and least characteristic of this organization's culture. We have provided you with a set of 54 cards, each containing a description of one possible value or outcome that might be important in defining culture.

Since it would be quite difficult to rank order all 54 cards, we have simplified the procedure and would like you to sort the 54 values into a row of nine categories, placing at one end of the row those cards that you consider to be the most characteristic of culture, and at the other end those cards that you believe to be the least characteristic. The exact number of cards to be placed in each of the nine categories are:

<u>Category</u>	<u>No. of Cards</u>	<u>Category Label</u>
9	2	Most Characteristic
8	4	Quite Characteristic
7	6	Fairly Characteristic
6	9	Somewhat Characteristic
5	12	Neutral
4	9	Somewhat Uncharacteristic
3	6	Fairly Uncharacteristic
2	4	Quite Uncharacteristic
1	2	Most Uncharacteristic

In order to simplify your task, we have provided nine *category cards*, each with the category label and the number of cards to be placed in the category. We suggest one convenient method for sorting is to arrange the *category cards* in order on the desk. Then sort the *statement cards* into three preliminary stacks – those statements seen as characteristic on one side, uncharacteristic on the other, and the remaining *statement cards* in the middle. No attention need be paid to the number of cards in each stack at this point. Once this initial sort has been completed, the *statement cards* can then be further divided into the proper proportions as indicated on the *category cards*.

As you begin your sort, please read each item and ask yourself:

***How much does this attribute characterize the current  
culture at \_\_\_\_\_ ?***

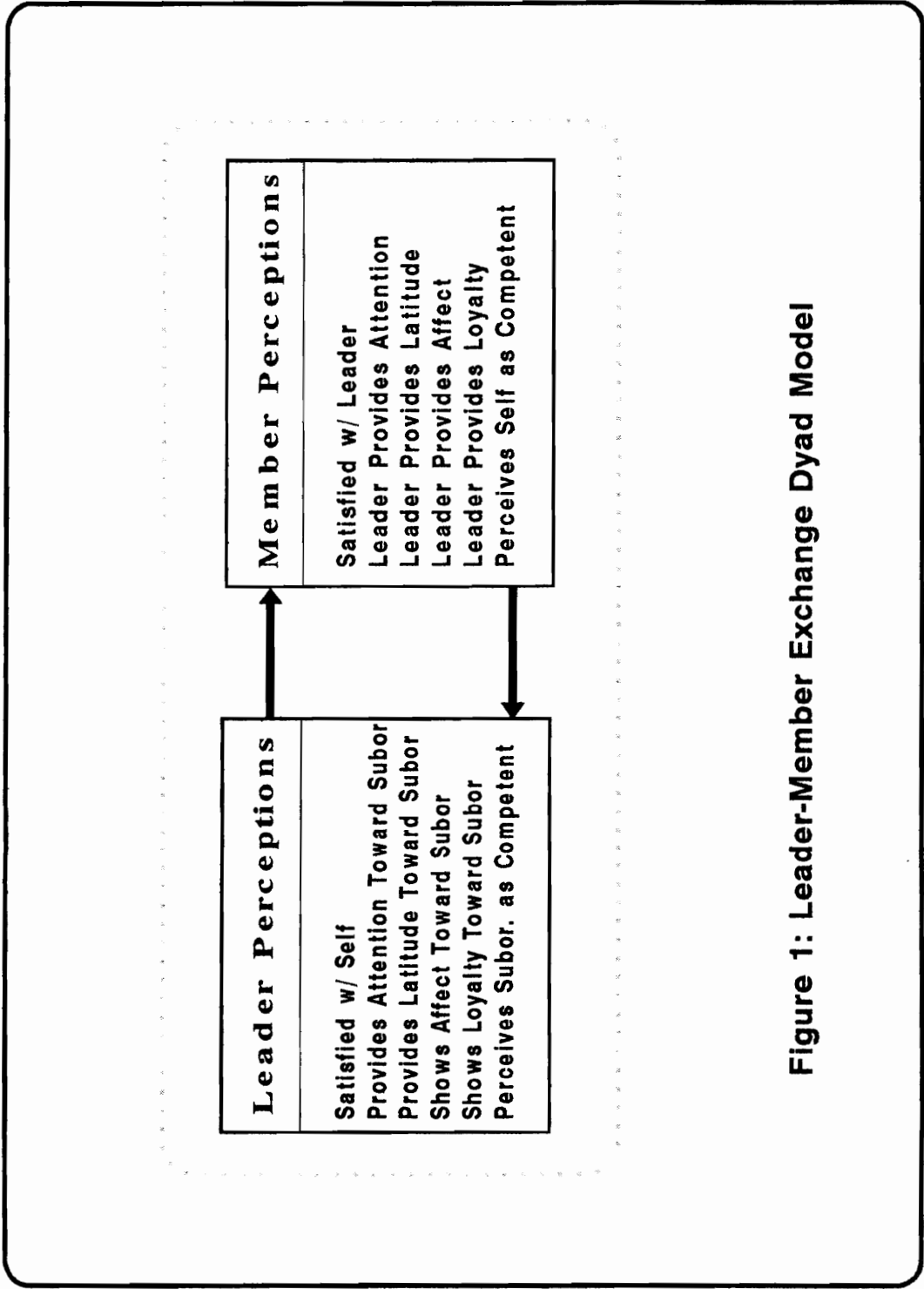
When you have finished your sort, carefully stack the sets of cards in this order: First, your name card on top, then below it the #9 category card and statement cards, then the #8 category card and statement cards, and so on to the #1 category card and statement cards. Then carefully place a rubber band around the deck at right angles. We will then collect the cards.

Thank you.



**APPENDIX - B**  
**FIGURES**





**Figure 1: Leader-Member Exchange Dyad Model**

<b>View of Relationship</b>	<b>Level of Analysis Dyad</b>	<b>Level of Analysis Group</b>	<b>Relevant Literature</b>
<b>Average Leadership Style (ALS)</b>	<b>Between</b>	<b>Between</b>	<b>Schriesheim &amp; Kerr (1977)</b>
<b>Leader-member Exchange (LMX)</b>	<b>Between</b>	<b>Within</b>	<b>Dansereau et al. (1975) Graen et al. (1982)</b>
<b>Balanced Interpersonal Relationships</b>	<b>Between</b>	<b>Equivocal</b>	<b>Adams (1965), Byrne (1971), Wexley et al. (1980),</b>
<b>Unbalanced Interpersonal Relationship</b>	<b>Within</b>	<b>Null</b>	<b>Berscheid (1985) Hollander (1958) Pulakos &amp; Wexley (1983)</b>
<b>Information Processing Approaches</b>	<b>Equivocal</b>	<b>Equivocal</b>	<b>Eden &amp; Leviatan (1975) Phillips &amp; Lord (1984) Lord et al. (1984) Larson (1982)</b>
<b>Non-Leadership Approach</b>	<b>Null</b>	<b>Null</b>	<b>Kerr &amp; Jermier (1978) Meindl &amp; Ehrlich (1987)</b>

Adapted from Yammarino and Dubinsky (1992)

**Figure 2: Views of Superior-Subordinate Relationships**

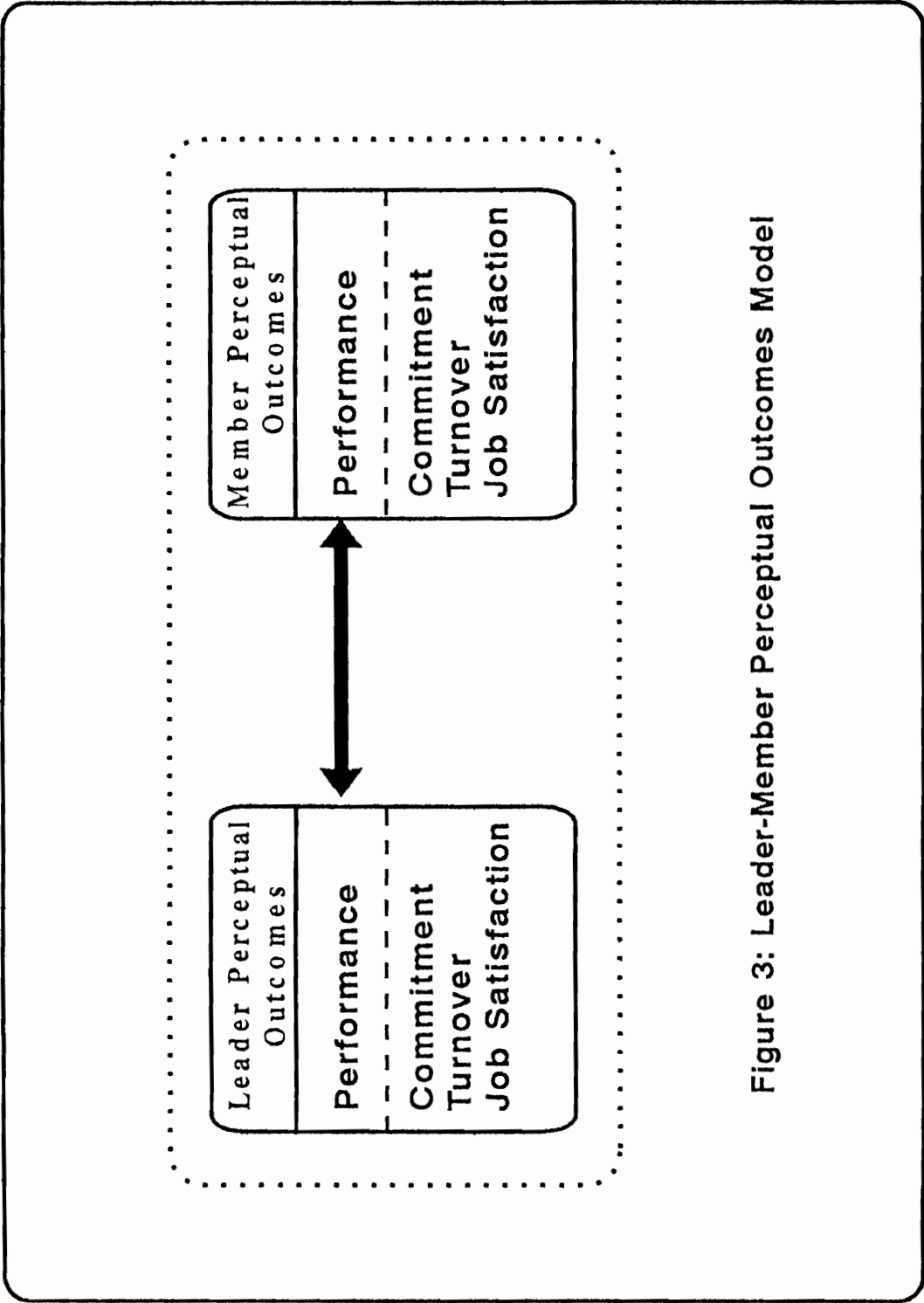
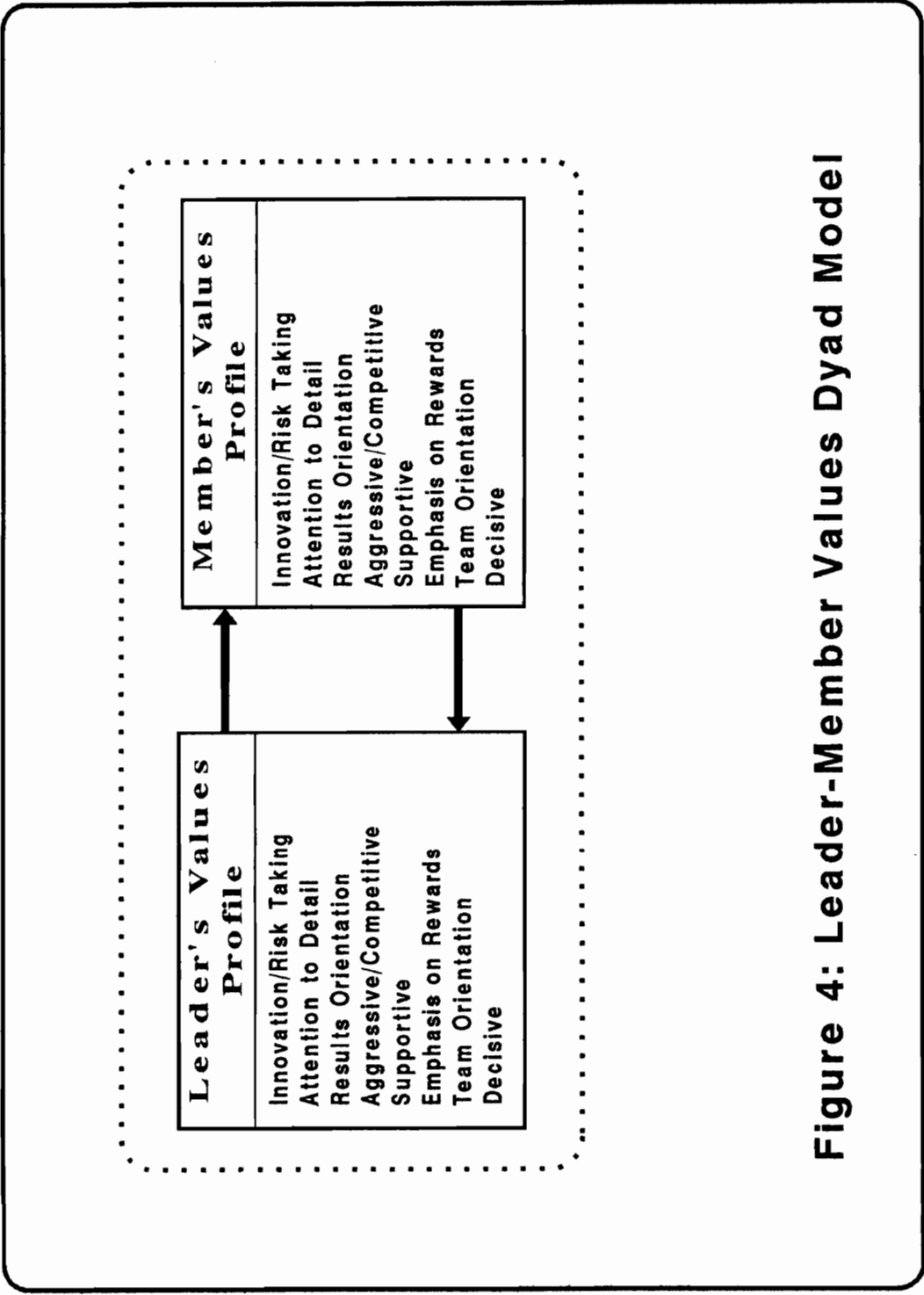


Figure 3: Leader-Member Perceptual Outcomes Model



**Figure 4: Leader-Member Values Dyad Model**

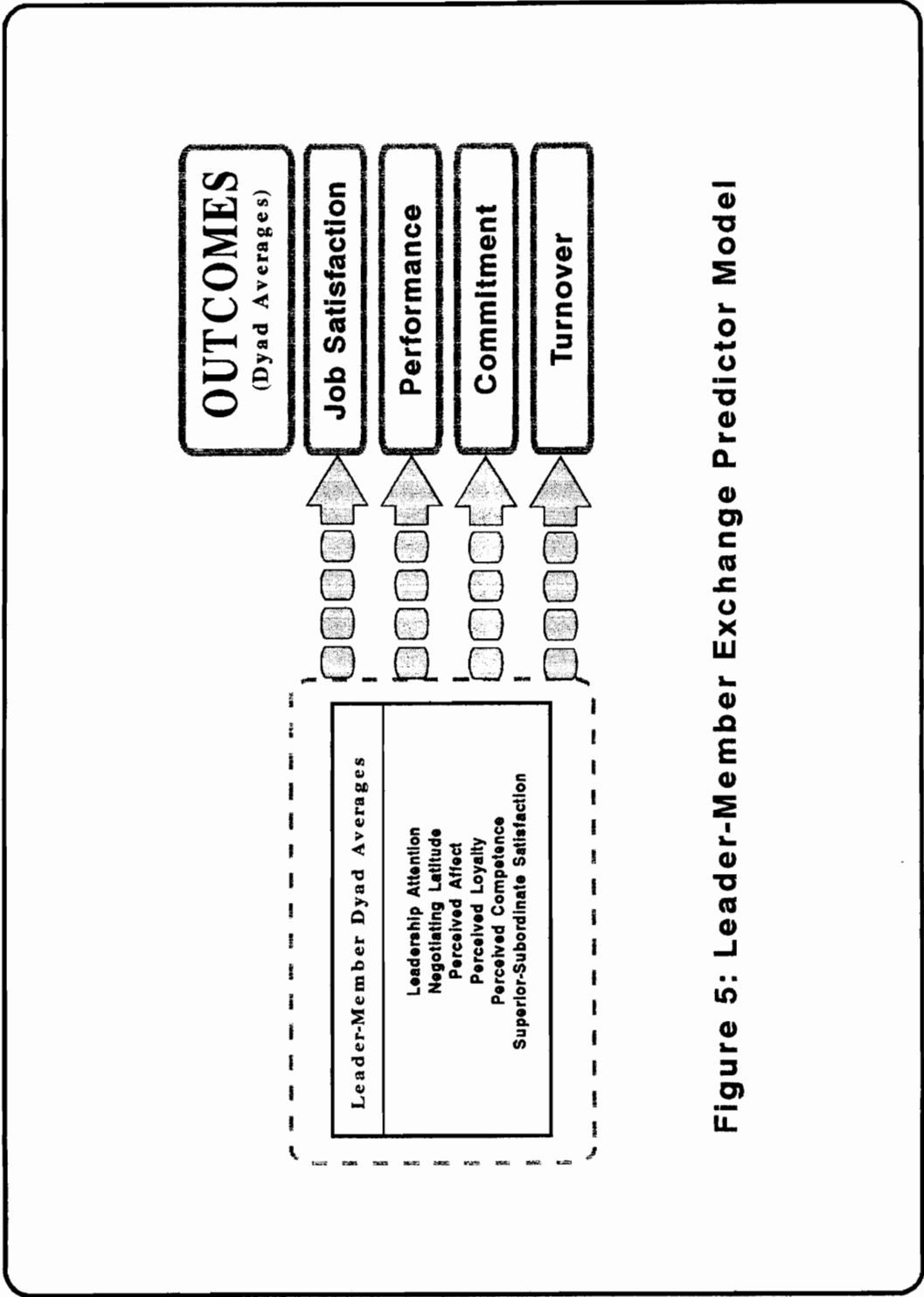
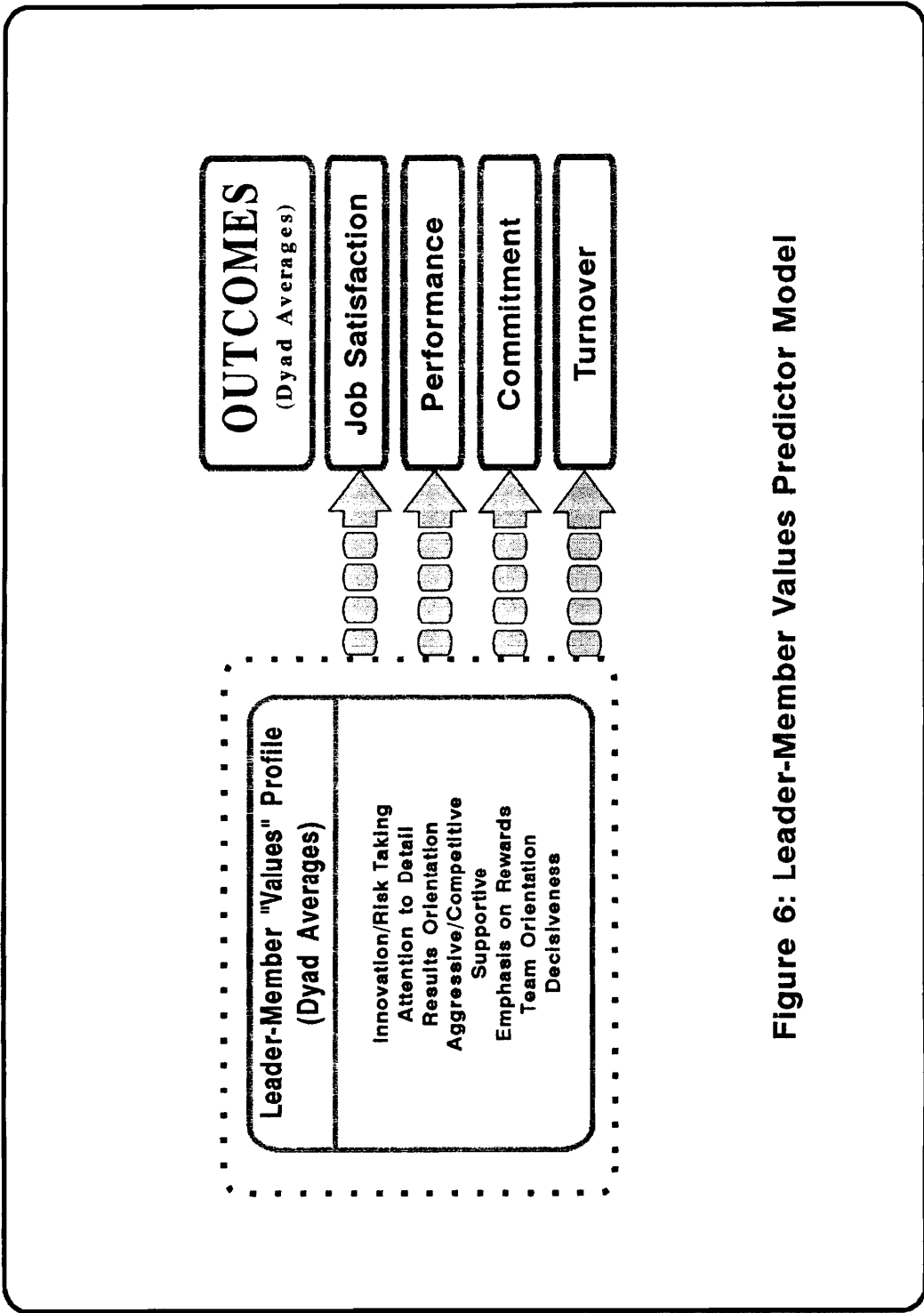
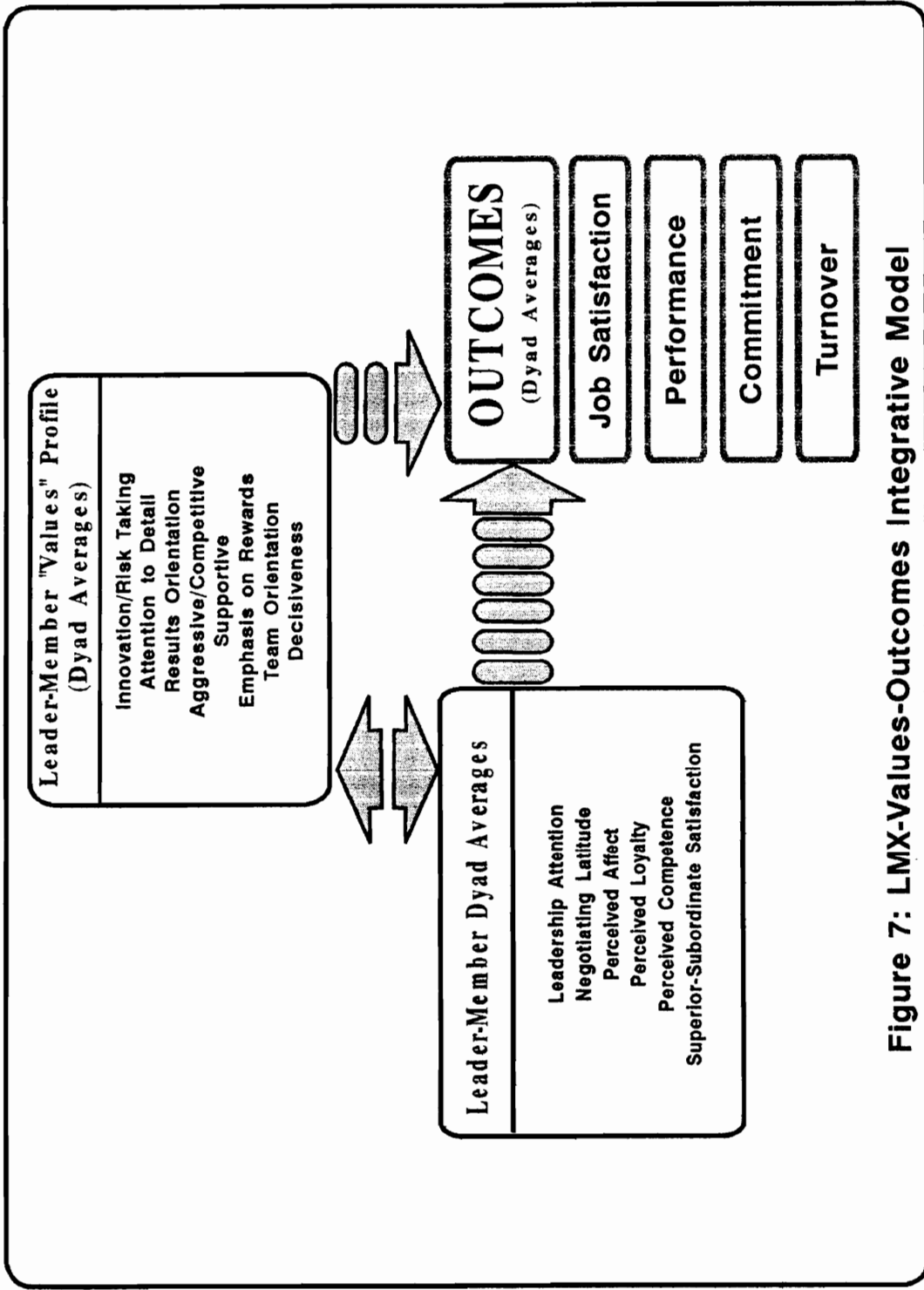


Figure 5: Leader-Member Exchange Predictor Model



**Figure 6: Leader-Member Values Predictor Model**



**Figure 7: LMX-Values-Outcomes Integrative Model**

Measurement Instruments	Source	No. of Items	Matched Report Dyad Level	Single Report Single Level
Quality of Leader-Member Exchange (QLMX)	Scandura and Green (1984)	4 Items	X	
Superior Loyalty	Green et al. (1982)	1 Item	X	
Superior Liking	Brownlee (1991)	5 Items	X	
Subordinate Competence	Brownlee (1991)	3 Items	X	
Leadership Attention	Brownlee (1991)	6 Items	X	
Superior/Subordinate Satisfaction	Dansereau et al. (1984)	11 Items	X	
Satisfaction with Subordinate Performance	Scarpello and Vandenberg (1987)	12 Items	X	
	Yammarino and Dublinsky (1992)	2 Items	X	
Work Values	Murry and Markham (No Date)	2 Items	X	
Turnover Intentions	Chatman (1988)	54 Items	X	
Organizational Commitment	Seashore et al. (1982)	3 Items		X
Job Satisfaction	Mowday et al. (1979)	7 Items		X
Social Desirability	Weiss et al. (1967)	15 Items		X
	Crowne and Marlowe (1966)	13 Items		X

**Figure 8: Summary Chart of Survey Instruments**



Variables	ETA Correlation Between	ETA Correlation Within	F-Tests	Condition
Competence	1	0	Infinity	Between
Loyalty	1	0	Infinity	Between
Liking	1	0	Infinity	Between
Satisfaction	1	0	Infinity	Between
Attention	1	0	Infinity	Between
Quality of LMX	1	0	Infinity	Between

Ideal Condition For Hypotheses 1a, 3, 4a  
Adapted From Dansereau et al. (1984)

**Figure 9: Summary WABA I Statistical Significance Test (F) -  
DYAD Level**

Variables	ETA Correlation Between	ETA Correlation Within	F-Tests	Condition
Competence	0.0	1.0	Infinity	Within
Loyalty	0.0	1.0	Infinity	Within
Liking	0.0	1.0	Infinity	Within
Satisfaction	0.0	1.0	Infinity	Within
Attention	0.0	1.0	Infinity	Within
Quality of LMX	0.0	1.0	Infinity	Within

Ideal Condition For Hypotheses 1b, 3, and 4b  
Adapted From Dansereau et al. (1984)

**Figure 10: Summary WABA I Statistical Significance Test (F) - GROUP Level**

Variable Relationships	Total Correlation	Between (rb) Correlation	Within (rw) Correlation	Statistical Sig. Test (Z)	Inference
Competence	1	1	0	(+) Infinity	Between
Loyalty	1	1	0	(+) Infinity	Between
Liking	1	1	0	(+) Infinity	Between
Satisfaction	1	1	0	(+) Infinity	Between
Attention	1	1	0	(+) Infinity	Between
Quality of LMX	1	1	0	(+) Infinity	Between

Ideal Condition for Hypotheses 2 and 5  
Adapted from Dansereau et al. (1984)

**Figure 11: Summary WABA II Difference Test - DYAD Level**

Variable Relationships	Total Correlation	Between ETA - Var. 1	Between ETA - Var. 2	Between Correlation	Within ETA - Var. 1	Within ETA - Var. 2	Within Correlation	FINAL INFERENCE
Competence	1.0	1.0	1.0	1.0	0.0	0.0	0.0	Between
Loyalty	1.0	1.0	1.0	1.0	0.0	0.0	0.0	Between
Liking	1.0	1.0	1.0	1.0	0.0	0.0	0.0	Between
Satisfaction	1.0	1.0	1.0	1.0	0.0	0.0	0.0	Between
Attention	1.0	1.0	1.0	1.0	0.0	0.0	0.0	Between
Quality of LMX	1.0	1.0	1.0	1.0	0.0	0.0	0.0	Between

Adapted From Dansereau et al. (1984)

**Figure 12: Combined WABA Equations - DYAD Level**

	<b>WABA I Inference</b>	<b>WABA II Inference</b>	<b>FINAL INFERENCE</b>
<b>Category 1 (Strongest Inference)</b>	<b>Between</b>	<b>Between</b>	<b>BETWEEN</b>
	<b>Within</b>	<b>Within</b>	<b>WITHIN</b>
	<b>Equivocal</b>	<b>Equivocal</b>	<b>EQUIVOCAL</b>
	<b>Inexplicable</b>	<b>Inexplicable</b>	<b>INEXPLICABLE</b>
<b>Category 2 (Weaker Inference)</b>	<b>Equivocal</b>	<b>Between</b>	<b>BETWEEN</b>
	<b>Between</b>	<b>Inexplicable</b>	<b>BETWEEN</b>
	<b>Equivocal</b>	<b>Within</b>	<b>WITHIN</b>
	<b>Within</b>	<b>Inexplicable</b>	<b>WITHIN</b>
<b>Category 3 (Range Restriction)</b>	<b>Between</b>	<b>Within</b>	<b>NONE</b>
	<b>Within</b>	<b>Between</b>	<b>NONE</b>
	<b>Between</b>	<b>Equivocal</b>	<b>NONE</b>
	<b>Within</b>	<b>Equivocal</b>	<b>NONE</b>
<b>Category 4 (Ambiguous)</b>	<b>Inexplicable</b>	<b>Within</b>	<b>NONE</b>
	<b>Inexplicable</b>	<b>Between</b>	<b>NONE</b>
	<b>Inexplicable</b>	<b>Equivocal</b>	<b>NONE</b>
	<b>Equivocal</b>	<b>Inexplicable</b>	<b>NONE</b>

Adapted From Dansereau et al. (1984)

**Figure 13: Inferences for Less Than Ideal  
Conditions  
Single Level of Analysis**

**APPENDIX - C**

**TABLES**

Table 1:  
Sample Characteristics

Variables	Frequency	Percent
<b>Employee Groups:</b>		
Managers	25	20.0
Subordinates	110	80.0
<b>Gender:</b>		
Management		
Male	13	52.0
Female	12	48.0
Subordinates		
Male	36	32.7
Female	74	67.3
<b>Race:</b>		
Management		
Black	3	12.0
White	22	88.0
Hispanic	0	0.0
Subordinates		
Black	8	7.3
White	101	91.8
Hispanic	1	0.9
<b>Education:</b>		
Management		
< High School	0	0.0
High School Diploma	2	8.0
Some College	3	12.0
Associates Degree	3	12.0
Bachelors Degree	14	56.0
Masters / Ph.D.	3	12.0
Subordinates		
< High School	3	2.7
High School Diploma	14	12.7
Some College	42	38.2
Associates Degree	11	10.0
Bachelors Degree	34	30.9
Masters / Ph.D.	6	5.5

Table 1:  
Sample Characteristics-continued.

Variables	Frequency	Percent
<b>Time with Current Supervisor:</b>		
<b>Management</b>		
Less then One Year	4	16.0
One to Five Years	17	68.0
> then Five Years	4	16.0
<b>Subordinates</b>		
Less then One Year	24	21.8
One to Five Years	75	68.2
> then Five Years	11	10.0
<b>Age:</b>		
<b>Management</b>		
30 - 36	8	32.0
37 - 42	9	36.0
43 - 49	8	32.0
<b>Subordinates</b>		
23 - 33	37	33.6
34 - 43	35	31.9
44 - 66	38	34.5
<b>Tenure with Organization:</b>		
<b>Management</b>		
1 - 6	8	32.0
7 - 15	9	36.0
16 - 28	8	32.0
<b>Subordinates</b>		
1 - 4	35	31.8
5 - 14	39	35.5
15 - 49	36	32.7
<b>Tenure with Department:</b>		
<b>Management</b>		
1 - 3	7	29.2
4 - 9	9	37.5
10 - 24	8	32.0
<b>Subordinates</b>		
1 - 3	32	29.6
4 - 9	44	40.0
10 - 40	32	29.6



Table 1:  
 Sample Characteristics-continued.

Variables	Frequency	Percent
<b>Tenure in Job:</b>		
<b>Management</b>		
1 - 2	9	30.4
3 - 4	8	32.0
5 - 8	8	32.0
<b>Subordinates</b>		
1 - 2	28	25.5
3 - 4	39	35.5
5 - 36	38	34.5

Table 2:  
Variable Designations<sup>25</sup>

Variable	Variable Type	Variable
AGE	CV	Individuals Age
GENDER	CV	Individuals Sex
EDUCATE	CV	Individuals Level of Education
TENURE01	CV	Individuals Tenure in Organization
TENURE02	CV	Individuals Tenure in Department
TENURE03	CV	Individuals Tenure in Job
TIMEWSUP	CV	Amount of Time Under Superior
SOCDESIR	CV	Individuals Level of Response Social Desirability
Leadership Exchanges - Dyad Averages		
COMPTENT	IV	Subordinate's Level of Competence
LOYALTY	IV	Superior's Level of Loyalty Toward Subordinate
AFFECT	IV	Superior's Level of Liking for Subordinate
SATSFAC	IV	Subordinate's Perceived Level of Satisfaction with Superior
ATTENTION	IV	Amount of Attention Shown Toward Subordinate
QUALITY	IV	Quality of Leader-member Exchange

<sup>25</sup> CV = Classification Variable  
IV = Independent Variable  
DV = Dependent Variable  
PHV = Post-hoc Variable

Table 2 (cont.)

Work Values - Chatman (1991) Dimensions		
INNOVATE	IV	Innovation
DETAIL	IV	Attention to Detail
OUTCOME	IV	Outcome Orientation
AGGRESS	IV	Aggressiveness
SUPPORT	IV	Supportiveness
REWARDS	IV	Emphasis on Rewards
TEAMORIE	IV	Team Orientation
DECISIVE	IV	Decisiveness
Outcome Variables		
PERFORMS	DV	Level of Perceived Subordinate Performance
ORGCOMMT	DV	Level of Commitment to Organization
TURNOVER	DV	Intentions to Turnover
JOBSATFC	DV	Level of Satisfaction with Job
Post-Hoc Variables		
MGR_MGR	PHV	Manager by Manager Composite Work Values Profile
MGR_SUB	PHV	Manager by Subordinate Work Values "Profile of Fit" (POF)
DYADPOF	PHV	Manager by Subordinate Work Values Congruence Score

Table 3:  
Descriptive Statistics - Classification Variables

Variable	N	Mean	SD	Min.	Max.
AGE	110	39.52	10.35	23.0	66.0
GENDER	110	1.67	0.47	1.0	2.0
EDUCATE	110	3.70	1.26	1.0	6.0
TENURE01	110	11.81	10.29	1.0	49.0
TENURE02	108	8.73	8.44	1.0	40.0
TENURE03	105	6.10	6.48	1.0	36.0
RACE	110	2.94	0.28	2.0	4.0
TIMEWSUP	110	1.88	0.55	1.0	3.0
SOCDESIR	110	1.34	0.23	1.0	2.0

Descriptive Statistics - Outcome Variables

Variable	N	Mean	SD	Min.	Max.	Alpha
PERFORMS	110	4.75	0.66	3.00	5.75	---
ORGCOMMT	110	4.81	0.67	2.71	6.00	.86
TURNOVER	110	2.25	1.27	1.00	5.33	.88
JOBSATFC	110	4.52	0.69	1.80	5.87	.89

Table 3: continued  
 Descriptive Statistics - Leader-Member Subordinate Report

Variable	N	Mean	SD	Min.	Max.	Alpha
SUPCOMPT	110	5.02	0.56	3.33	6.00	.77
SUPLOYLT	110	4.62	0.95	1.20	6.00	.88
SUPLIKNG	110	4.52	1.07	1.00	6.00	.92
SUPSATSB	110	4.50	0.97	1.00	6.00	.94
SUPATTN	110	4.61	0.94	1.00	6.00	.95
MLXQUAL	110	4.51	1.07	1.00	6.00	.89
SUPPERFM	110	4.81	0.66	2.50	5.75	.88

Descriptive Statistics - Leader-Member Supervisor Report

Variable	N	Mean	SD	Min.	Max.	Alpha
SUBCOMPT	110	4.75	0.77	2.33	6.00	.84
SUBLOYLT	110	5.01	0.64	2.60	6.00	.83
SUBLIKNG	110	4.92	0.88	2.00	6.00	.93
SATWMSUB	110	4.86	0.51	3.20	6.00	.80
LEADATTN	110	5.05	0.44	3.82	6.00	.88
LMXQUAL	110	5.06	0.52	3.60	6.00	.74
SUBPERFM	110	4.69	0.83	2.25	5.75	.92

Table 3: continued  
 Descriptive Statistics - Work Values Subordinate Report

Variable	N	Mean	SD	Min.	Max.	Alpha
INNOVAT1	106	5.26	0.60	3.75	6.50	.18
DETAIL1	106	5.05	0.74	2.67	5.67	.51
OUTCOME1	106	4.61	0.92	3.20	6.80	.31
AGGRESS1	106	4.97	1.05	2.75	6.50	.07
SUPPORT1	106	5.09	0.77	2.75	6.25	-.07
REWARDS1	106	5.73	0.92	2.67	6.67	.39
TEAMOR1	106	5.50	1.00	4.00	8.00	.20
DECISIV1	106	4.50	1.14	2.67	7.33	.11

Descriptive Statistics - Work Values Supervisor Report

Variable	N	Mean	SD	Min.	Max.	Alpha
INNOVAT2	25	5.11	0.60	3.75	6.50	-.63
DETAIL2	25	4.60	0.74	2.67	5.67	-.07
OUTCOME2	25	5.14	0.92	3.20	6.80	.25
AGGRESS2	25	4.48	1.05	2.75	6.50	.25
SUPPORT2	25	5.00	0.77	2.75	6.25	.02
REWARDS2	25	4.90	0.90	2.67	6.67	-.23
TEAMOR2	25	5.60	1.00	4.00	8.00	.09
DECISIV2	25	4.40	1.14	2.67	7.33	.22

Table 3: continued  
 Descriptive Statistics - Dyad Means

Variable	N	Mean	SD	Min.	Max.
COMPTENT	110	4.88	0.50	3.42	5.83
LOYALTY	110	4.82	0.66	2.60	6.00
AFFECT	110	4.72	0.82	1.67	6.00
SATSFAC	110	4.68	0.55	2.90	5.70
ATENTION	110	4.83	0.53	2.91	5.91
QUALITY	110	4.78	0.64	2.30	6.00
-----					
INNOVATE	110	5.15	0.43	4.06	6.25
DETAIL	110	4.85	0.61	3.50	6.67
OUTCOME	110	4.98	0.56	3.60	6.20
AGGRESS	110	4.65	0.59	3.50	5.87
SUPPORT	110	5.06	0.46	3.87	6.12
REWARDS	110	5.23	0.64	3.17	6.71
TEAMORIE	110	5.46	0.69	3.33	6.95
DECISIVE	110	4.48	0.70	2.17	5.95
-----					
PERFORMS	110	4.75	0.66	3.00	5.75

Table 4a:  
Total Correlations Between Matched Reports

Variable	Correlation
Competence	.110 ns
Loyalty	.360 ***
Liking	.430 ***
Superior/Subordinate Satisfaction	-.001 ns
Leadership Attention	.060 ns
Quality of Exchange	.200 *
-----	
Innovation	.051 ns
Attention to Detail	-.089 ns
Outcome Orientation	.098 ns
Aggressiveness	-.082 ns
Supportiveness	-.058 ns
Rewards Emphasis	-.060 ns
Team Orientation	.106 ns
Decisiveness	.025 ns
-----	
Subordinate Performance	.540 **



Table 4b:  
Total Correlation Matrix Dyad Means and Outcomes

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
COMPTEINT	--																	
LOYALTY	.41***	--																
AFFECT	.49***	.86***	--															
SATISFACT	.25**	.72***	.64***	--														
ATTENTION	.38***	.85***	.75***	.85***	--													
QUALITY	.41***	.78***	.69***	.74***	.87***	--												
PERFORMS	.77***	.69***	.76***	.43***	.60***	.59***	--											
ORGCMMT	.19*	.15	.19*	.19*	.17	.15	.19*	--										
TURNOVER	-.31***	-.12	-.17	-.17	-.11	-.13	-.19*	-.53***	--									
JOBSATFC	.32***	.59***	.48***	.64***	.69***	.68***	.65***	.48***	-.46***	--								
INNOVATE	.05	.007	.07	-.002	.05	-.04	-.007	.02	-.02	-.16	--							
DETAIL	-.06	-.107	-.07	-.13	-.13	-.12	-.05	-.30**	.19**	-.17	.06	--						
OUTCOME	.13	.15	.18	.33**	.29**	.31***	.19*	.03	-.11	.23*	.08	.04	--					
AGGRESS	.11	-.035	.07	.04	.005	-.008	.09	-.16	-.15	.18	-.18	.04	.25**	--				
SUPPORT	-.08	.03	.05	.17	.08	.16	.07	.02	.04	.16	-.18	.17	.12	-.02	--			
REWARDS	-.05	-.08	-.15	.17	.004	.07	-.10	-.12	.05	.12	-.18	-.15	.04	-.02	.17	--		
TEAMORIE	.06	.09	.09	.20*	.17	.27**	.04	-.07	.11	.19*	-.17	-.01	.09	.03	.26**	.08	--	
DECISIVE	-.13	.07	.002	-.007	.06	-.02	-.11	.05	-.06	.03	.29**	.08	-.30**	-.23*	-.30**	-.09	-.34***	--

Table 5a:  
Summary WABA I Statistical Significance Tests-DYAD LEVEL

Variables	Between ETA	Within ETA	F-test	Condition
COMPETNT	.728	.685	1.139	Equivocal
LOYALTY	.794**	.608	1.718**	Between
LIKING	.825**	.565	2.153**	Between
SATISFY	.689	.725	1.097	Equivocal
ATTENTION	.691	.723	1.084	Equivocal
QUALLMX	.723	.691	1.104	Equivocal

n=220 Supervisor/Subordinate Reports

j=110 Dyads

df=109,110 Between

df=110,109 Within

\*p < .05 for F > or equal to 1.39

\*\*p < .01 for F > or equal to 1.59

Summary WABA I Statistical Significance Tests-GROUP LEVEL

Variables	Between ETA	Within ETA	F-test	Condition
COMPETNT	.361	.932*	1.879*	Within (Inverted F)
LOYALTY	.610	.792	0.477	Equivocal
LIKING	.559	.829	0.623	Equivocal
SATISFY	.701	.714	0.293	Equivocal
ATTENTION	.634	.774	0.421	Equivocal
QUALLMX	.675	.738	0.338	Equivocal

n=110 Dyads

j=25 Groups

df=24,85 Between

\*p < .05 for F > or equal to 1.65

\*\*p < .01 for F > or equal to 2.03

df=85,24 Within

\*p < .05 for F > or equal to 1.82

\*\*p < .01 for F > or equal to 2.36

Table 5B:  
Summary WABA II Difference Tests-DYAD LEVEL

Variables	TOTAL Corr.	Between Corr.	Within Corr.	Z Statistic	Inference
<b>COMPETNT with:</b>					
LOYALTY	.306***	.411	0.164	1.991*	Between
LIKING	.377***	.485	0.222	2.231*	Between
SATISFY	.099	.248	-.051	1.480	Equivocal
ATTENTION	.185**	.383	-.015	2.848**	Between
QUALLMX	.213**	.408	-.004	3.143**	Between
<b>LOYALTY with:</b>					
LIKING	.828***	.844	.801	.990	Equivocal
SATISFY	.697***	.718	.691	.391	Equivocal
ATTENTION	.826***	.845	.824	.512	Equivocal
QUALLMX	.777***	.782	.781	.013	Equivocal
<b>LIKING with:</b>					
SATISFY	.613***	.639	.609	0.355	Equivocal
ATTENTION	.721***	.746	.724	0.350	Equivocal
QUALLMX	.697***	.691	.730	-.569	Equivocal
<b>SATISFY with:</b>					
ATTENTION	.879***	.850	.905	-1.788*	Within
QUALLMX	.756***	.739	.774	-0.600	Equivocal
<b>ATTENTION with:</b>					
QUALLMX	.873***	.868	.880	-0.360	Equivocal

\*p < .05; \*\*p < .01; \*\*\*p < .001

Table 5c:  
Summary WABA II Difference Tests-GROUP Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	Z Statistic	Inference
<b>COMPETNT with:</b>					
LOYALTY	.411***	.276	.474	-.972	Equivocal
LIKING	.485***	.416	.519	-.550	Equivocal
SATISFY	.248**	.210	.293	-.367	Equivocal
ATTENTION	.383***	.248	.452	-.975	Equivocal
QUALLMX	.408***	.296	.488	-.950	Equivocal
<b>LOYALTY with:</b>					
LIKING	.844***	.806	.866	-.847	Equivocal
SATISFY	.718***	.733	.716	.148	Equivocal
ATTENTION	.845***	.867	.833	.521	Equivocal
QUALLMX	.781***	.852	.737	1.331	Equivocal
<b>LIKING with:</b>					
SATISFY	.639***	.687	.626	.449	Equivocal
ATTENTION	.746***	.819	.710	1.115	Equivocal
QUALLMX	.691***	.723	.684	.323	Equivocal
<b>SATISFY with:</b>					
ATTENTION	.850***	.865	.844	.320	Equivocal
QUALLMX	.739***	.730	.748	-.166	Equivocal
<b>ATTENTION with:</b>					
QUALLMX	.868***	.881	.861	.355	Equivocal

\*p < .05; \*\*p < .01; \*\*\*p < .001

Table 5d:  
Summary WABA Equations - DYAD LEVEL

Variables	TOTAL	=	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Final Inference
COMPETENT with:											
LOYALTY	.306***	=	.728	.794***	.411*	+	.685	.608	0.164	1.99*	Between
LIKING	.377***	=	.728	.825**	.485*	+	.685	.565	0.222	2.23*	Between
SATISFY	.099	=	.728	.689	.248	+	.685	.725	-.051	1.48	Equivocal
ATTENTION	.185**	=	.728	.691	.383**	+	.685	.723	-.015	2.85**	Between
QUALLMX	.213**	=	.723	.408**	.685	+	.685	.691	-.004	3.14**	Between
LOYALTY with:											
LIKING	.828***	=	.794**	.825**	.844	+	.608	.565	.801	.990	Between
SATISFY	.697***	=	.794**	.689	.718	+	.608	.725	.691	.391	Between
ATTENTION	.826***	=	.794**	.691	.845	+	.608	.723	.824	.512	Between
QUALLMX	.776***	=	.794**	.723	.782	+	.608	.691	.781	.013	Between
LIKING with:											
SATISFY	.613***	=	.825**	.689	.639	+	.565	.725	.609	0.355	Between
ATTENTION	.721***	=	.825**	.691	.565	+	.565	.723	.724	0.350	Between
QUALLMX	.697***	=	.825**	.723	.691	+	.565	.691	.730	-.569	Between

Table 5d - continued:  
 Summary WABA Equations - DYAD LEVEL

Variables TOTAL Corr.	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Final Inference	
SATISFY with:										
ATTENTION	.879***	.689	.691	.850	+	.725	.723	.905*	-1.788*	Within
QUALIMX	.756***	.689	.723	.739	+	.725	.691	.774	-0.60	Equivocal
ATTENTION with:										
QUALIMX	.873***	.691	.723	.868	+	.723	.691	.880	-.360	Equivocal

Table 5e:  
Summary WABA Equations - GROUP Level

Variables	TOTAL	=	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Final Inference
COMPETNT with:											
LOYALTY	.411***	=	.361	.610	.276	+	.932*	.792	.474	-.972	Within
LIKING	.485***	=	.361	.559	.416	+	.932*	.829*	.519	-.550	Within
SATISFY	.248**	=	.361	.701	.210	+	.932*	.714	.293	-.367	Within
ATTENTION	.383***	=	.361	.634	.248	+	.932*	.774	.452	-.975	Within
QUALIMX	.408***	=	.361	.675	.296	+	.932*	.738	.488	-.950	Within
LOYALTY with:											
LIKING	.844***	=	.610	.559	.806	+	.792	.829*	.866	-.847	Within
SATISFY	.718***	=	.610	.701	.733	+	.792	.714	.716	0.149	Equivocal
ATTENTION	.845***	=	.610	.634	.867	+	.792	.774	.833	0.521	Equivocal
QUALIMX	.781***	=	.610	.675	.852	+	.792	.738	.737	1.331	Equivocal
LIKING with:											
SATISFY	.639***	=	.559	.701	.687	+	.829*	.714	.626	0.449	Within
ATTENTION	.746***	=	.559	.634	.819	+	.829*	.774	.710	1.115	Within
QUALIMX	.691***	=	.559	.675	.723	+	.829*	.738	.684	0.323	Within

Table 5e - continued:  
 Summary WABA Equations - GROUP Level

Variables TOTAL Corr.	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Final Inference	
SATISFY with:										
ATTENTION	.850***	.701	.634	.865	+	.714	.774	.844	0.320	Equivocal
QUALLMX	.739***	.701	.675	.730	+	.714	.738	.748	-.166	Equivocal
ATTENTION with:										
QUALLMX	.868***	.634	.675	.881	+	.774	.738	.861	0.355	Equivocal



Table 5f:  
 Summary WABA I Practical Significance Tests-DYAD LEVEL

Variables	Between ETA	Within ETA	E-ratio	Condition
COMPETNT	.728	.685	1.062	
LOYALTY	.794	.608	1.305	Between-15
LIKING	.825	.565	1.461	Between-15
SATISFY	.689	.725	0.951	
ATTENTION	.691	.723	0.956	
QUALLMX	.723	.691	1.046	

n=220 Supervisor/Subordinate Reports  
 j=110 Dyads

Summary WABA I Practical Significance Tests-GROUP LEVEL

Variables	Between ETA	Within ETA	E-ratio	Condition
COMPETNT	.361	.932	0.388	Within-30
LOYALTY	.610	.792	0.770	
LIKING	.559	.829	0.673	Within-15
SATISFY	.701	.714	0.982	
ATTENTION	.634	.774	0.819	
QUALLMX	.675	.738	0.915	

n=110 Dyads  
 j=25 Groups

Practical Significance Criteria:

Between - 15 E  $\geq$  1.303

Between - 30 E  $\geq$  1.732

Within - 15 E  $\leq$  0.767

Within - 30 E  $\leq$  0.577

Table 5g:  
Summary WABA II Practical Significance-DYAD LEVEL

Variables	TOTAL Corr.	Between Corr.	Within Corr.	A Value	Inference
<b>COMPETNT with:</b>					
LOYALTY	.306***	.411	0.164	.259	
LIKING	.377***	.485	0.222	.283	Between-15
SATISFY	.099ns	.248	-.051	.199	
ATTENTION	.185**	.383	-.015	.378	Between-15
QUALLMX	.213**	.408	-.004	.416	Between-15
<b>LOYALTY with:</b>					
LIKING	.828***	.844	.801	.077	
SATISFY	.697***	.718	.691	.038	
ATTENTION	.826***	.845	.824	.038	
QUALLMX	.777***	.782	.781	.001	
<b>LIKING with:</b>					
SATISFY	.613***	.639	.609	.038	
ATTENTION	.721***	.746	.724	.032	
QUALLMX	.697***	.691	.730	-.055	
<b>SATISFY with:</b>					
ATTENTION	.879***	.850	.905	-.116	
QUALLMX	.756***	.739	.774	-.053	
<b>ATTENTION with:</b>					
QUALLMX	.873***	.868	.880	-.024	
<b>Practical Significance Criteria:</b>					
Between - 15	A >=	.262			
Between - 30	A >=	.524			
Within - 15	A <=	-.262			
Within - 30	A <=	-.524			

Table 5h:  
 Summary WABA II Practical Significance Test - GROUP Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	A Value	Inference
<b>COMPETNT with:</b>					
LOYALTY	.411***	.276	.474	-.215	
LIKING	.485***	.416	.519	-.117	
SATISFY	.248**	.210	.293	-.085	
ATTENTION	.383***	.248	.452	-.218	
QUALLMX	.408***	.296	.488	-.209	
<b>LOYALTY with:</b>					
LIKING	.844***	.806	.866	-.111	
SATISFY	.718***	.733	.716	.025	
ATTENTION	.845***	.867	.833	.066	
QUALLMX	.781***	.852	.737	.191	
<b>LIKING with:</b>					
SATISFY	.639***	.687	.626	.081	
ATTENTION	.746***	.819	.710	.170	
QUALLMX	.691***	.723	.684	.055	
<b>SATISFY with:</b>					
ATTENTION	.850***	.865	.844	.040	
QUALLMX	.739***	.730	.748	-.027	
<b>ATTENTION with:</b>					
QUALLMX	.868***	.881	.861	.042	

Practical Significance Criteria:  
 Between - 15 A >= .262  
 Between - 30 A >= .524  
 Within - 15 A <= -.262  
 Within - 30 A <= -.524

Table 6a:  
Summary WABA I Statistical Significance Tests-Outcomes

Variables	Between ETA	Within ETA	F-test	Condition
PERFORMS	.458	.889	1.066	Equivocal
ORGCMMT	.636	.771	.415	Equivocal
TURNOVER	.597	.802	.510	Equivocal
JOBSATFC	.648	.762	.391	Equivocal

n=110 Subordinate Reports

j=25 Superior Reports

\*p < .05 for F > or equal to 1.65 Between; 1.82 Within

\*\*p < .01 for F > or equal to 2.03 Between; 2.36 Within

Summary WABA II Difference Tests-GROUP Level

Variables	Total Corr.	Between Corr.	Within Corr.	Z Test	Inference
PERFORMS with:					
ORGCMMT	.188*	0.234	0.175	0.261	Equivocal
TURNOVER	-.193*	-.134	-.220	-.371	Equivocal
JOBSATFC	.446***	0.467	0.454	0.069	Equivocal
ORGCMMT with:					
TURNOVER	-.527***	-.686	-.431	1.584	Equivocal
JOBSATFC	.477***	0.698	0.323	2.206*	Between
TURNOVER with:					
JOBSATFC	-.456***	-.561	-.391	0.919	Equivocal

Table 6b:  
Summary WABA Equations - Outcomes

Variables	TOTAL	=	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Final Inference
PERFORMS with:											
ORGCMMT	.188*	=	.458	.636	0.235	+	.889	.771	0.175	0.261	Equivocal
TURNOVER	-.193*	=	.458	.597	-.134	+	.889	.802	-.220	-.371	Equivocal
JOBSATFC	.446***	=	.458	.648	0.467	+	.889	.762	0.454	0.069	Equivocal
ORGCMMT with:											
TURNOVER	-.527**	=	.636	.597	-.686	+	.771	.802	-.431	1.584	Equivocal
JOBSATFC	.477***	=	.636	.648	0.698*	+	.771	.762	0.323	2.206*	Between
TURNOVER with:											
JOBSATFC	-.456**	=	.597	.648	-.561	+	.802	.762	-.391	0.919	Equivocal

Table 6c:  
Summary WABA I Practical Significance Tests-Outcomes

Variables	Between ETA	Within ETA	E-ratio	Induction
PERFORMS	.458	.889	.515	Within-30
ORGCOMMT	.636	.771	.825	
TURNOVER	.597	.802	.744	Within-15
JOBSATFC	.648	.762	.850	

n=110 Subordinate Reports  
j=25 Superior Reports

Summary WABA II Practical Significance Test - Outcomes

Variables	Total Corr.	Between Corr.	Within Corr.	A Value	Induction
PERFORMS with:					
ORGCOMMT	.188*	.234	.175	.061	
TURNOVER	-.193*	-.134	-.220	-.087	
JOBSATFC	.446***	.467	.454	.015	
ORGCOMMT with:					
TURNOVER	-.527***	-.686	-.431	.312	Between-15
JOBSATFC	.477***	.698	.323	.444	Between-15
TURNOVER with:					
JOBSATFC	-.456***	-.561	-.391	.193	

Table 7a: Work Values  
 Summary WABA I Statistical Significance Tests-DYAD LEVEL

Variables	Bet. ETA	With. ETA	F-test	Condition
INNOVATE	.693	.721	1.073	Equivocal
DETAIL	.662	.750	1.270	Equivocal
OUTCOME	.670	.743	1.218	Equivocal
AGGRESS	.631	.776	1.500**	Within (Inverted F)
SUPPORT	.684	.729	1.125	Equivocal
REWARDS	.614	.789**	1.636**	Within (Inverted F)
TEAMORIE	.733**	.680	1.173**	Between
DECISIVE	.713	.701	1.046	Equivocal

n=220 Reports; j=110 Dyads

\*p < .05 for F > or equal to 1.39;

\*\*p < .01 for F > or equal to 1.59

Summary WABA I Statistical Significance Tests-GROUP Level

Variables	Bet. ETA	With. ETA	F-test	Condition
INNOVATE	.785**	.620	5.676**	Between
DETAIL	.616	.787	.460	Equivocal
OUTCOME	.817**	.577	7.101**	Between
AGGRESS	.787**	.617	5.762**	Between
SUPPORT	.742**	.670	4.346**	Between
REWARDS	.621	.784	.451	Equivocal
TEAMORIE	.825**	.565	7.541**	Between
DECISIVE	.810**	.587	6.744**	Between

n=110 Dyads; j=25 Groups; df=24,85 Between

\*p < .05 for F > or equal to 1.65

\*\*p < .01 for F > or equal to 2.03

df=85,24 Within

\*p < .05 for F > or equal to 1.82

\*\*p < .01 for F > or equal to 2.36

Table 7b: Work Values  
 Summary WABA II Difference Tests-DYAD Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	Z Statistic	Inference
<b>INNOVATE with:</b>					
DETAIL	0.058	0.065	0.052	0.099	Null
OUTCOME	-.108	0.090	-.280	-1.45	Equivocal
AGGRESS	-.085	-.179	-.012	1.240	Equivocal
SUPPORT	-.239**	-.179	-.293	-.890	Equivocal
REWARDS	-.096	-.175	-.037	1.022	Equivocal
TEAMORIE	-.116	-.168	-.063	0.777	Equivocal
DECISIVE	.327***	.290	.362	-.592	Equivocal
<b>DETAIL with:</b>					
OUTCOME	-.033	0.040	-.092	-.382	Null
AGGRESS	0.014	0.042	-.007	0.261	Null
SUPPORT	-.149*	-.174	-.128	0.350	Equivocal
REWARDS	-.022	-.147	0.065	0.612	Equivocal
TEAMORIE	0.015	-.012	0.040	-.205	Null
DECISIVE	0.146	0.084	0.202	-.880	Equivocal
<b>OUTCOME with:</b>					
AGGRESS	0.095	0.254	-.022	1.742*	Between
SUPPORT	0.028	0.116	-.047	0.511	Equivocal
REWARDS	-.126	0.044	-.246	-1.522	Equivocal
TEAMORIE	0.017	0.085	-.050	0.260	Null
DECISIVE	-.300*	-.297	-.303	-0.050	Equivocal



Table 7b: Work Values-continued  
 Summary WABA II Difference Tests-DYAD Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	Z Statistic	Inference
<b>AGGRESS with:</b>					
SUPPORT	0.007	-.016	0.025	-0.066	Null
REWARDS	0.182**	-.024	0.313*	-2.193*	Within
TEAMORIE	0.088	0.029	-.009	0.145	Null
DECISIVE	-.326**	-.235	-.405	-1.397	Equivocal
<b>SUPPORT with:</b>					
REWARDS	0.169*	0.173	0.167	.038	Equivocal
TEAMORIE	0.242***	0.257	0.228	.229	Equivocal
DECISIVE	-.280***	-.299	-.261	.304	Equivocal
<b>REWARDS with:</b>					
TEAMORIE	0.078	0.077	0.080	-.020	Null
DECISIVE	-.078	-.086	-.072	0.097	Null
<b>TEAMORIE with:</b>					
DECISIVE	-.185**	-.107**	.023	2.508**	Between

\*p < .05; \*\*p < .01

Table 7c: Work Values  
 Summary WABA II Difference Tests-GROUP Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	Z Statistic	Inference
<b>INNOVATE with:</b>					
DETAIL	0.065	-.050	0.184	-.566	Equivocal
OUTCOME	0.090	0.102	0.069	0.140	Equivocal
AGGRESS	-.179	-.146	-.234	-.379	Equivocal
SUPPORT	-.179	-.291	-.022	1.158	Equivocal
REWARDS	-.175	-.381	0.021	1.582	Equivocal
TEAMORIE	-.168	-.205	-.100	0.448	Equivocal
DECISIVE	0.290**	0.301	0.273	0.126	Equivocal
<b>DETAIL with:</b>					
OUTCOME	0.040	-.043	0.136	-.391	Equivocal
AGGRESS	0.042	0.181	-.093	0.375	Equivocal
SUPPORT	-.174	-.163	-.189	-.113	Equivocal
REWARDS	-.147	-.083	-.187	-.444	Equivocal
TEAMORIE	-.012	-.195	0.196	-.002	Equivocal
DECISIVE	0.084	0.019	0.162	-.599	Equivocal
<b>OUTCOME with:</b>					
AGGRESS	0.254**	0.300	0.172	0.567	Equivocal
SUPPORT	0.116	0.229	-.059	0.725	Equivocal
REWARDS	0.044	0.019	0.075	-0.231	Null
TEAMORIE	0.085	0.106	0.043	0.265	Equivocal
DECISIVE	-.297**	-.354	-.185	0.761	Equivocal

Table 7c: Work Values-continued  
 Summary WABA II Difference Tests-GROUP Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	Z Statistic	Inference
<b>AGGRESS with:</b>					
SUPPORT	-.016	0.089	-.166	-.324	Equivocal
REWARDS	-.024	-.089	0.040	0.207	Null
TEAMORIE	0.029	0.137	-.173	-.153	Equivocal
DECISIVE	-.235*	-.270	-.175	0.415	Equivocal
<b>SUPPORT with:</b>					
REWARDS	0.173	-.004	0.332	-1.422	Equivocal
TEAMORIE	0.257**	0.315	0.171	0.639	Equivocal
DECISIVE	-.299**	-.503	0.007	2.277*	Between
<b>REWARDS with:</b>					
TEAMORIE	0.077	-.035	0.215	-.765	Null
DECISIVE	-.086	-.120	-.056	0.272	Null
<b>TEAMORIE with:</b>					
DECISIVE	-.342**	-.530	.036	2.308*	Between

Table 7d: Work Values  
Summary WABA Equations - DYAD Level

Variables	TOTAL	r =	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Inference
INNOVATE with:											
DETAIL	0.058	=	.693	.662	0.065	+	.721	.750	0.052	0.099	Equivocal
OUTCOME	-.108	=	.693	.670	0.090	+	.721	.743	-.280	-1.450	Equivocal
AGGRESS	-.085	=	.693	.631	-.179	+	.721	.776**	-.012	1.240	Within
SUPPORT	-.239**	=	.693	.684	-.179	+	.721	.729	-.293	-0.890	Equivocal
REWARDS	-.096	=	.693	.614	-.175	+	.721	.789**	-.037	1.022	Within
TEAMORIE	-.116	=	.693	.733**	-.168	+	.721	.680	-.063	0.777	Between
DECISIVE	0.327**	=	.693	.713	0.290	+	.721	.701	0.362	-0.592	Equivocal
DETAIL with:											
OUTCOME	-.033	=	.662	.670	0.040	+	.750	.743	-.092	-.382	Equivocal
AGGRESS	0.014	=	.662	.631	0.042	+	.750	.776**	-.007	0.261	Within
SUPPORT	-.149*	=	.662	.684	-.174	+	.750	.729	-.128	0.350	Equivocal
REWARDS	-.022	=	.662	.614	-.147	+	.750	.789**	0.065	0.612	Within
TEAMORIE	0.015	=	.662	.733**	-.012	+	.750	.680	0.040	-.205	Between
DECISIVE	0.146	=	.662	.713	0.084	+	.750	.701	0.202	-.880	Equivocal

Table 7d: Work Values - continued  
 Summary WABA Equations - DYAD Level

Variables	TOTAL	r =	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Inference
OUTCOME with:											
AGGRESS	0.095	=	.670	.631	0.254*	+	.743	.776**	-.022	1.742*	Null
SUPPORT	0.028	=	.670	.684	0.116	+	.743	.729	-.047	0.511	Equivocal
REWARDS	-.126	=	.670	.614	0.044	+	.743	.789**	-.246	-1.522	Within
TEAMORIE	0.017	=	.670	.733**	0.085	+	.743	.680	-.050	0.260	Between
DECISIVE	-.300*	=	.670	.713	-.297	+	.743	.701	-.303	-.050	Equivocal
AGGRESS with:											
SUPPORT	0.007	=	.631	.684	-.016	+	.776**	.729	0.025	-.066	Within
REWARDS	0.182**	=	.631	.614	-.024	+	.776**	.789**	0.313*	-2.193*	Within
TEAMORIE	0.008	=	.631	.733**	0.029	+	.776**	.680	-.009	0.145	Null
DECISIVE	-.320**	=	.631	.713	-.235	+	.776**	.701	-.405	-1.397	Within
SUPPORT with:											
REWARDS	0.169*	=	.684	.614	0.173	+	.729	.789**	0.167	.038	Within
TEAMORIE	0.242**	=	.684	.733**	0.257	+	.729	.680	0.228	.229	Between
DECISIVE	-.280**	=	.684	.713	-.299	+	.729	.701	-.261	.304	Equivocal

Table 7d: Work Values - continued  
 Summary WABA Equations - DYAD Level

Variables	TOTAL r =	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Inference
REWARDS with:										
TEAMORIE	0.078	= .614	.733**	0.077	+	.789**	.680	0.080	-.020	Null
DECISIVE	-.078	= .614	.713	-.086	+	.789**	.701	-.072	0.097	Within
TEAMORIE										
DECISIVE	-.185**	= .733**	.713	-.107**	+	.680	.701	0.023	2.508**	Between

Table 7e: Work Values  
Summary WABA Equations - GROUP Level

Variables	TOTAL	r =	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Inference
INNOVATE with:											
DETAIL	0.065	=	.785***	.616	-.050	+	.620	.787	0.184	-.566	Between
OUTCOME	0.090	=	.785***	.817**	0.102	+	.620	.577	0.069	0.140	Between
AGGRESS	-.179	=	.785***	.787**	-.146	+	.620	.617	-.234	-0.379	Between
SUPPORT	-.179	=	.785***	.742**	-.291	+	.620	.670	-.022	1.158	Between
REWARDS	-.175	=	.785***	.621	-.381	+	.620	.784	0.021	1.582	Between
TEAMORIE	-.168	=	.785***	.825**	-.205	+	.620	.565	-.100	0.448	Between
DECISIVE	0.290**	=	.785***	.810**	0.301	+	.620	.587	0.273	0.126	Between
DETAIL with:											
OUTCOME	0.040	=	.616	.817**	-.043	+	.787	.577	0.136	-.391	Between
AGGRESS	0.042	=	.616	.787**	0.181	+	.787	.617	-.093	0.375	Between
SUPPORT	-.174	=	.616	.742**	-.163	+	.787	.670	-.189	-.113	Between
REWARDS	0.147	=	.616	.621	-.083	+	.787	.784	-.187	-.444	Equivocal
TEAMORIE	-.012	=	.616	.825**	-.195	+	.787	.565	0.196	-.002	Between
DECISIVE	0.084	=	.616	.810**	0.019	+	.787	.587	0.162	-.599	Between

Table 7E: Work Values - continued  
 Summary WABA Equations - GROUP Level

Variables	TOTAL r	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Inference
OUTCOME with:										
AGGRESS	0.254**	.817**	.787**	0.300	+	.577	.617	0.172	0.567	Between
SUPPORT	0.116	.817**	.742**	0.229	+	.577	.670	-.054	0.725	Between
REWARDS	0.044	.817**	.621	0.019	+	.577	.784	0.075	-.231	Between
TEAMORIE	0.085	.817**	.825**	0.106	+	.577	.565	0.043	0.265	Between
DECISIVE	-.297**	.817**	.810**	-.354	+	.577	.587	-.185	0.761	Between
AGGRESS with:										
SUPPORT	-.016	.787**	.742**	0.089	+	.617	.670	-.166	-.324	Between
REWARDS	-.024**	.787**	.621	-.089	+	.617	.784	0.040	0.207	Between
TEAMORIE	0.029	.787**	.828**	0.137	+	.617	.565	-.173	-.153	Between
DECISIVE	-.235*	.787**	.810**	-.270	+	.617	.587	-.175	0.415	Between
SUPPORT with:										
REWARDS	0.173	.742**	.621	-.004	+	.670	.784	0.332	-1.422	Between
TEAMORIE	0.257**	.742**	.825**	0.315	+	.670	.565	0.171	0.639	Between
DECISIVE	-.299**	.742**	.810**	-.503*	+	.670	.587	0.007	2.277*	Between



Table 7e: Work Values - continued  
 Summary WABA Equations - GROUP Level

Variables	TOTAL	r =	ETA <sub>b1</sub>	ETA <sub>b2</sub>	r <sub>b</sub>	+	ETA <sub>w1</sub>	ETA <sub>w2</sub>	r <sub>w</sub>	Z	Inference
REWARDS with:											
TEAMORIE	0.077	=	.621	.825**	-.035	+	.784	.565	0.215	-.765	Between
DECISIVE	-.086	=	.621	.810**	-.120	+	.784	.587	-.056	0.272	Between
TEAMORIE with:											
DECISIVE	-.342**	=	.825**	.810**	-.530*	+	.565	.587	0.036	2.308*	Between

Table 7f: Work Values  
 Summary WABA I Practical Significance Tests-DYAD LEVEL

Variables	Bet. ETA	With. ETA	E-ratio	Induction
INNOVATE	.693	.721	0.961	
DETAIL	.662	.750	0.883	
OUTCOME	.670	.743	0.902	
AGGRESS	.631	.776	0.813	
SUPPORT	.684	.729	0.938	
REWARDS	.614	.789	0.778	
TEAMORIE	.733	.680	1.078	
DECISIVE	.713	.701	1.018	

n=220 Reports; j=110 Dyads

Summary WABA I Practical Significance Tests-GROUP Level

Variables	Bet. ETA	With. ETA	E-ratio	Induction
INNOVATE	.785	.620	1.266	
DETAIL	.616	.787	0.783	
OUTCOME	.817	.577	1.416	Between-15
AGGRESS	.787	.617	1.276	
SUPPORT	.742	.670	1.108	
REWARDS	.621	.784	0.791	
TEAMORIE	.825	.565	1.459	Between-15
DECISIVE	.810	.587	1.380	Between-15

n=110 Dyads; j=25 Group

Table 7g: Work Values  
 Summary WABA II Practical Significance Tests-DYAD Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	A value	Induction
<b>INNOVATE with:</b>					
DETAIL	0.058	0.065	0.052	0.013	
OUTCOME	-.108	0.090	-.280	-.194	
AGGRESS	-.085	-.179	-.012	-.168	
SUPPORT	-.239**	-.179	-.293	-.118	
REWARDS	-.096	-.175	-.037	0.139	
TEAMORIE	-.116	-.168	-.063	0.105	
DECISIVE	.327***	.290	.362	-.076	
<b>DETAIL with:</b>					
OUTCOME	-.033	0.040	-.092	-.052	
AGGRESS	0.014	0.042	-.007	0.036	
SUPPORT	-.149*	-.174	-.128	0.047	
REWARDS	-.022	-.147	0.065	0.083	
TEAMORIE	0.015	-.012	0.040	-.028	
DECISIVE	0.146	0.084	0.202	-.119	
<b>OUTCOME with:</b>					
AGGRESS	0.095	0.254	-.022	0.235	
SUPPORT	0.028	0.116	-.047	0.069	
REWARDS	-.126	0.044	-.246	-.205	
TEAMORIE	0.017	0.085	-.050	0.035	
DECISIVE	-.300*	-.297	-.303	-0.007	

Table 7g: Work Values-continued  
 Summary WABA II Practical Significance Tests-DYAD Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	A value	Induction
<b>AGGRESS with:</b>					
SUPPORT	0.007	-.016	0.025	-0.009	
REWARDS	0.182**	-.024	0.313*	-0.294	Within-15
TEAMORIE	0.088	0.029	-.009	0.020	
DECISIVE	-.326**	-.235	-.405	-0.180	
<b>SUPPORT with:</b>					
REWARDS	0.169*	0.173	0.167	0.005	
TEAMORIE	0.242***	0.257	0.228	0.030	
DECISIVE	-.280***	-.299	-.261	0.040	
<b>REWARDS with:</b>					
TEAMORIE	0.078	0.077	0.080	-.003	
DECISIVE	-.078	-.086	-.072	0.013	
<b>TEAMORIE with:</b>					
DECISIVE	-.185**	-.107**	.023	0.335	Between-15

Table 7h: Work Values  
 Summary WABA II Practical Significance Tests-GROUP Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	A value	Induction
<b>INNOVATE with:</b>					
DETAIL	0.065	-.050	0.184	-.135	
OUTCOME	0.090	0.102	0.069	0.033	
AGGRESS	-.179	-.146	-.234	-.089	
SUPPORT	-.179	-.291	-.022	0.273	Within-15
REWARDS	-.175	-.381	0.021	0.369	Within-15
TEAMORIE	-.168	-.205	-.100	0.106	
DECISIVE	0.290**	0.301	0.273	0.029	
<b>DETAIL with:</b>					
OUTCOME	0.040	-.043	0.136	-.093	
AGGRESS	0.042	0.181	-.093	0.089	
SUPPORT	-.174	-.163	-.189	-.027	
REWARDS	-.147	-.083	-.187	-.105	
TEAMORIE	-.012	-.195	0.196	-.001	
DECISIVE	0.084	0.019	0.162	-.143	
<b>OUTCOME with:</b>					
AGGRESS	0.254**	0.300	0.172	0.132	
SUPPORT	0.116	0.229	-.059	0.172	
REWARDS	0.044	0.019	0.075	-0.055	
TEAMORIE	0.085	0.106	0.043	0.063	
DECISIVE	-.297**	-.354	-.185	0.176	

Table 7h: Work Values-continued  
 Summary WABA II Practical Significance Tests-GROUP Level

Variables	TOTAL Corr.	Between Corr.	Within Corr.	A value	Induction
<b>AGGRESS with:</b>					
SUPPORT	-.016	0.089	-.166	-.077	
REWARDS	-.024	-.089	0.040	0.049	
TEAMORIE	0.029	0.137	-.173	-.036	
DECISIVE	-.235*	-.270	-.175	0.097	
<b>SUPPORT with:</b>					
REWARDS	0.173	-.004	0.332	-.334	Within-15
TEAMORIE	0.257**	0.315	0.171	0.148	
DECISIVE	-.299**	-.503	0.007	0.520	Within-15
<b>REWARDS with:</b>					
TEAMORIE	0.077	-.035	0.215	-.182	
DECISIVE	-.086	-.120	-.056	0.065	
<b>TEAMORIE with:</b>					
DECISIVE	-.342**	-.530	.036	0.522	Between-15

Table 8: Final Inferences

Leader-Member Exchange Model - DYAD LEVEL:

	Competence	Loyalty	Liking	Satisfaction	Attention	Quality
Competence	---					
Loyalty	Between	---				
Liking	Between	Between	---			
Satisfaction	Equivocal	Between	Between	---		
Attention	Between	Between	Between	Within	---	
Quality	Between	Between	Between	Equivocal	Equivocal	---

Leader-Member Exchange Model - GROUP LEVEL:

	Competence	Loyalty	Liking	Satisfaction	Attention	Quality
Competence	---					
Loyalty	Within	---				
Liking	Within	Within	---			
Satisfaction	Equivocal	Equivocal	Within	---		
Attention	Within	Equivocal	Within	Equivocal	---	
Quality	Within	Equivocal	Within	Equivocal	Equivocal	---

Work Values Dimensional Model - DYAD LEVEL:

	Innovation	Detail	Outcome Or.	Aggressive	Support	Rewards	Team Orien.	Decisive
Innovation	---							
Detail	Equivocal	---						
Outcome Or.	Equivocal	Equivocal	---					
Aggressive	Within	Within	Null	---				
Support	Equivocal	Equivocal	Equivocal	Within	---			
Rewards	Within	Within	Within	Within	Within	---		
Team Orien.	Between	Between	Between	Null	Between	Null	---	
Decisive	Equivocal	Equivocal	Equivocal	Within	Equivocal	Within	Between	---

Work Values Dimensional Model - GROUP LEVEL:

	Innovation	Detail	Outcome Or.	Aggressive	Support	Rewards	Team Orien.	Decisive
Innovation	---							
Detail	Between	---						
Outcome Or.	Between	Between	---					
Aggressive	Between	Between	Between	---				
Support	Between	Between	Between	Between	---			
Rewards	Between	Equivocal	Between	Between	Between	---		
Team Orien.	Between	Between	Between	Between	Between	Between	---	
Decisive	Between	Between	Between	Between	Between	Between	Between	---

Table 8: Final Inferences-continued:

Outcome Variable Model:

	Performance	Commitment	Turnover	Job Satisfaction
Performance	---			
Commitment	Equivocal	---		
Turnover	Equivocal	Equivocal	---	
Job Satisfaction	Equivocal	Between	Equivocal	---



Table 9a:  
Multiple Regression - Leader-Member Model on Subordinate Performance:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	3	37.58	12.53	138.87	0.000
Error	106	9.56	0.09		
R-square	0.797	Adj. R-square		0.7914	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	-.847	.314	-2.70	.008	.000
COMP TENT	1	.696	.066	10.58	.000	1.307
LOYALTY	1	.188	.082	2.30	.023	3.483
AFFECT	1	.273	.068	4.02	.000	3.783

Step	Variable Entr/Rem	In	Stepwise Summary		F-Value	Sig. F
			Partial R-square	Model R-square		
1	COMP TENT	1	.596	.596	159.226	.000
2	AFFECT	2	.191	.787	96.076	.000
3	LOYALTY	3	.010	.797	5.290	.023

Table 9b:  
Multiple Regression - Leader-Member Model on Organizational  
Commitment:

Analysis of Variance						
Source:	DF:	Sum of Squares	Mean Square	F-Value	Sig.F	
Model	1	1.88	1.88	4.27	0.041	
Error	108	47.64	0.44			
R-square	0.038	Adj. R-square		0.0291		

Parameter Estimates						
Variable:	DF:	b	Std. Error	T for H <sub>0</sub>	Sig.  T	VIF
Intercep	1	3.523	.625	5.639	.000	.000
COMPTE <sup>T</sup>	1	.263	.127	2.067	.041	1.000

Stepwise Summary						
Step	Variable Entr/Rem	In	Partial R-square	Model R-square	F-Value	Sig. F
1	COMPTE <sup>T</sup>	1	.038	.038	4.271	.041

Table 9c:  
 Multiple Regression - Leader-Member Model on Turnover  
 Intentions:

Analysis of Variance						
Source:	DF:	Sum of Squares	Mean Square	F-Value	Sig.F	
Model	1	16.91	16.91	11.60	0.000	
Error	108	157.53	1.46			
R-square	0.097	Adj. R-square		0.0886		

Parameter Estimates						
Variable:	DF:	b	Std. Error	T for H <sub>0</sub>	Sig.  T	VIF
Intercep	1	6.094	1.14	5.364	.000	.000
COMPTENT	1	-.788	.232	-3.405	.000	1.000

Stepwise Summary						
Step	Variable Entr/Rem	In	Partial R-square	Model R-square	F-Value	Sig. F
1	COMPTENT	1	.097	.097	11.596	.000

Table 9d:  
Multiple Regression - Leader-Member Model on Job Satisfaction:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	2	26.03	13.01	54.99	0.000
Error	107	25.32	0.24		
R-square	0.507	Adj. R-square		0.4976	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	0.291	.427	0.680	.497	.000
ATENTION	1	.534	.177	3.023	.003	4.065
QUALITY	1	.346	.147	2.355	.020	4.065

Step	Variable Entr/Rem	In	Stepwise Summary		F-Value	Sig. F
			Partial R-square	Model R-square		
1	ATENTION	1	.481	.481	100.214	.000
2	QUALITY	2	.026	.507	5.507	.020

Table 10a: Work Values  
 Manager's Composite Item Mean Profile

Variable	M	STD	Variable	M	STD
OCP03	7.091	1.477	OCP42	4.955	1.759
OCP49	6.909	1.540	OCP24	4.909	1.688
OCP47	6.864	2.031	OCP17	4.818	2.403
OCP15	6.773	1.541	OCP05	4.727	2.251
OCP50	6.773	1.510	OCP10	4.727	1.579
OCP37	6.727	1.804	OCP12	4.727	1.202
OCP19	6.500	1.472	OCP14	4.727	1.032
OCP18	6.045	1.397	OCP29	4.727	1.386
OCP21	5.864	1.612	OCP23	4.682	1.810
OCP20	5.773	1.270	OCP13	4.591	1.368
OCP43	5.727	1.751	OCP33	4.591	1.333
OCP51	5.727	2.074	OCP02	4.455	1.654
OCP45	5.636	1.840	OCP39	4.455	1.969
OCP25	5.591	1.297	OCP36	4.364	1.590
OCP52	5.591	2.197	OCP28	4.318	1.615
OCP34	5.545	2.220	OCP30	4.227	1.478
OCP44	5.409	1.563	OCP07	4.136	1.859
OCP09	5.364	2.194	OCP46	4.136	1.583
OCP04	5.318	1.836	OCP16	3.955	1.214
OCP31	5.318	1.887	OCP11	3.864	2.007
OCP35	5.318	1.644	OCP32	3.864	1.283
OCP01	5.273	1.751	OCP40	3.682	1.427
OCP41	5.136	1.699	OCP26	3.455	1.503
OCP54	5.136	1.424	OCP48	3.409	1.182
OCP22	5.091	1.306	OCP08	3.227	2.022
OCP53	5.045	2.058	OCP27	3.136	1.490
OCP38	4.955	1.463	OCP06	2.864	1.699

Table 10b: Work Values  
Subordinate's Raw Profile

Variable	E E I D 2	E E I D 4	E E I D 5	E E I D 8	E E I D 1 0	E E I D 1 1	E E I D 1 3	E E I D 1 5	E E I D 1 6
OCP47	6	8	6	7	7	8	6	8	9
OCP37	7	6	8	6	7	7	8	8	5
OCP15	9	5	8	7	9	5	2	7	2
OCP19	6	6	6	7	6	9	7	8	5
OCP36	6	6	1	6	8	5	9	9	6
OCP01	7	5	9	3	6	6	5	8	5
OCP44	6	8	5	5	5	5	6	6	6
OCP35	5	8	1	6	8	7	5	7	6
OCP20	2	6	8	8	7	8	7	9	6
OCP18	6	4	7	2	8	6	7	6	8
OCP25	8	5	7	6	9	6	7	7	6
OCP03	7	5	9	8	4	5	8	6	5
OCP05	3	9	4	4	7	6	6	7	6
OCP38	1	6	8	7	6	8	9	6	6
OCP49	7	6	4	5	6	5	5	6	8
OCP29	5	7	3	6	6	5	3	6	7
OCP13	4	4	6	8	5	5	5	6	6
OCP34	4	5	5	4	7	7	5	6	7
OCP02	9	9	5	3	5	9	8	5	5
OCP43	8	5	3	6	6	5	4	6	7
OCP07	3	5	6	3	7	3	8	7	5
OCP33	6	6	5	4	5	7	5	5	7
OCP16	6	6	2	9	7	5	7	7	6
OCP50	5	7	5	6	8	7	4	7	8
OCP54	3	2	4	7	5	4	5	4	1
OCP06	3	3	4	4	6	5	6	6	5
OCP52	3	7	3	4	5	8	6	6	6

Table 10c: Work Values  
 Subordinate's Correlation with Manager's Composite Profile

EEID	MGR SUB Correlation	p	EEID	MGR SUB Correlation	p
002	0.36308	.0070	004	0.25680	.0609
005	0.26584	.0620	008	0.30073	.0271
010	0.32614	.0161	011	0.30171	.0266
013	0.15593	.2602	015	0.35363	.0087
016	0.26831	.0498	017	0.27305	.0457
019	0.42180	.0015	020	0.35534	.0084
021	0.38909	.0036	022	0.39723	.0029
023	0.45423	.0006	024	0.32585	.0162
027	0.45356	.0006	028	0.20007	.1469
032	0.26330	.0544	033	0.48517	.0002
036	0.24728	.0714	038	0.30183	.0265
040	0.18065	.1911	042	0.27250	.0462
043	0.35510	.0084	044	0.33954	.0120
048	0.36642	.0064	049	0.54783	.0001
050	0.31748	.0193	054	0.12983	.3494
055	0.08832	.5254	056	0.20436	.1382
057	0.48954	.0002	058	0.11216	.4194
059	0.46307	.0004	062	0.25886	.0587
063	0.52869	.0001	065	0.45642	.0005
066	0.32002	.0183	067	0.32520	.0164
069	0.44546	.0007	072	0.40039	.0027
073	0.36549	.0066	075	0.20744	.1323
076	0.41221	.0020	081	0.22348	.1043
082	0.37426	.0053	083	0.62142	.0001
084	0.12178	.3803	087	-0.0021	.9875
089	0.40223	.0026	090	0.23425	.0882
091	0.35940	.0076	096	0.28492	.0368
100	0.04456	.7490	101	0.09566	.4914
102	0.33175	.0143	104	0.28102	.0395
105	0.32331	.0171	107	0.28256	.0384
109	0.13212	.3409	110	0.21265	.1226
111	0.38928	.0036	112	0.27754	.0422
114	0.27155	.0470	115	0.32974	.0149
116	0.41945	.0016	117	-0.0441	.7511
118	0.30006	.0275	120	0.09225	.5070
121	0.18187	.1881	122	0.30231	.0263

Table 10c: Work Values - continued  
 Subordinate's Correlation with Manager's Composite Profile

EEID	MGR_SUB Correlation	<i>p</i>	EEID	MGR_SUB Correlation	<i>p</i>
124	0.44517	.0007	128	0.28777	.0348
129	0.39841	.0028	132	0.39407	.0032
133	0.47117	.0003	134	0.16106	.2446
138	0.39101	.0035	139	0.35205	.0090
142	0.42089	.0015	146	0.37370	.0054
148	0.43391	.0010	149	0.03053	.8265
150	0.39622	.0030	151	0.35207	.0090
152	0.36949	.0060	153	0.25305	.0649
154	0.50653	.0001	156	0.24920	.0692
158	0.27710	.0425	159	0.36205	.0071
162	0.41528	.0018	165	0.11824	.3944
171	0.32737	.0157	173	0.27252	.0462
174	0.40693	.0023	177	0.30776	.0236
178	0.13165	.3427	179	0.34671	.0102
181	0.42969	.0012	184	0.39389	.0032
189	0.21741	.1143	191	0.27548	.0438
194	0.34263	.0112	195	0.40097	.0027



Table 10d: Work Values  
 Manager's Composite Profile Correlations

EEID	Mean MGR_MGR Correlation	<i>p</i>
006	0.2486	.0698
014	0.5719	.0001
025	0.6097	.0001
031	0.5984	.0001
034	0.3704	.0058
035	0.4012	.0026
045	0.5078	.0001
047	0.5788	.0001
060	0.3604	.0074
074	0.2260	.1003
086	0.2812	.0394
092	0.6109	.0001
106	0.3190	.0187
125	0.2592	.0584
131	0.3345	.0134
145	0.5682	.0001
155	0.7296	.0001
157	0.5042	.0001
161	0.5146	.0001
166	0.7330	.0001
167	0.3817	.0044
175	0.6139	.0001
185	0.5001	.0001
187	0.3630	.0070
192	0.7206	.0001

Table 10e: Work Values

Dyad Profile of Supervisor/Subordinate Correlations

MGR EEID	MGR_MGR Correlation	SUB EEID	MGR_SUB Correlation	DYADPOF
6	0.2486	22	0.3972	0.3229
6	0.2486	91	0.3594	0.3040
14	0.5719	57	0.4895	0.5307
14	0.5719	66	0.3200	0.4460
14	0.5719	101	0.0957	0.3338
14	0.5719	117	-.0442	0.2639
25	0.6098	75	0.2074	0.4086
25	0.6098	178	0.1317	0.3707
31	0.5985	5	0.2658	0.4322
31	0.5985	23	0.4542	0.5264
31	0.5985	28	0.2001	0.3993
31	0.5985	82	0.3743	0.4864
31	0.5985	84	0.1218	0.3601
31	0.5985	139	0.3521	0.4753
31	0.5985	150	0.3962	0.4974
31	0.5985	151	0.3521	0.4753
31	0.5985	162	0.4153	0.5069
31	0.5985	173	0.2725	0.4355
31	0.5985	181	0.4297	0.5141
31	0.5985	184	0.3939	0.4962
34	0.3704	4	0.2568	0.3136
34	0.3704	38	0.3018	0.3361
34	0.3704	145	0.3018	0.3361
34	0.3704	167	0.3018	0.3361
35	0.4013	59	0.4631	0.4322
35	0.4013	65	0.4564	0.4289
35	0.4013	116	0.4195	0.4104
45	0.5079	120	0.0923	0.3001
45	0.5079	134	0.1611	0.3345
47	0.5788	11	0.3017	0.4403
47	0.5788	27	0.4536	0.5162

Table 10e: Work Values- continued  
 Dyad Profile of Supervisor/Subordinate Correlations

MGR EEID	MGR_MGR Correlation	SUB EEID	MGR_SUB Correlation	DYADPOF
60	0.3605	19	0.4218	0.3911
60	0.3605	24	0.3259	0.3432
60	0.3605	42	0.2725	0.3165
60	0.3605	48	0.3664	0.3635
60	0.3605	83	0.6214	0.4910
60	0.3605	89	0.4022	0.3814
60	0.3605	115	0.3297	0.3451
60	0.3605	133	0.4712	0.4158
60	0.3605	146	0.3737	0.3671
60	0.3605	156	0.2492	0.3048
60	0.3605	156	0.2492	0.3048
74	0.2260	21	0.3891	0.3076
74	0.2260	49	0.5478	0.3869
74	0.2260	124	0.4452	0.3356
74	0.2260	142	0.4209	0.3235
74	0.2260	152	0.3695	0.2978
74	0.2260	153	0.2531	0.2395
86	0.2813	158	0.2771	0.2792
92	0.6110	17	0.2731	0.4420
92	0.6110	171	0.3274	0.4692
92	0.6110	189	0.2174	0.4142
106	0.3190	10	0.3261	0.3226
106	0.3190	100	0.0446	0.1818
106	0.3190	121	0.1819	0.2504
106	0.3190	129	0.3984	0.3587
106	0.3190	149	0.0305	0.1748
113	0.6691	36	0.2473	0.4582
113	0.6691	194	0.3426	0.5059
113	0.6691	195	0.4010	0.5350
125	0.2592	8	0.3007	0.2800
125	0.2592	20	0.3553	0.3073
125	0.2592	55	0.0883	0.1738
125	0.2592	62	0.2589	0.2590
125	0.2592	128	0.2878	0.2735
125	0.2592	174	0.4069	0.3331

Table 10e: Work Values- continued  
 Dyad Profile of Supervisor/Subordinate Correlations

MGR EEID	MGR_MGR Correlation	SUB EEID	MGR_SUB Correlation	DYADPOF
131	0.3346	16	0.2683	0.3015
131	0.3346	87	-.0022	0.1662
145	0.5682	43	0.3551	0.4617
145	0.5682	90	0.2343	0.4012
145	0.5682	96	0.2849	0.4266
145	0.5682	104	0.2810	0.4246
145	0.5682	179	0.3467	0.4575
155	0.7296	111	0.3893	0.5595
155	0.7296	125	0.3893	0.5595
157	0.5042	32	0.2633	0.3838
161	0.5147	63	0.5287	0.5217
161	0.5147	148	0.4339	0.4743
166	0.7330	2	0.3631	0.5481
166	0.7330	15	0.3536	0.5433
166	0.7330	40	0.1807	0.4568
166	0.7330	50	0.3175	0.5253
166	0.7330	54	0.1298	0.4314
166	0.7330	81	0.2235	0.4783
166	0.7330	102	0.3318	0.5324
166	0.7330	109	0.1321	0.4326
166	0.7330	110	0.2127	0.4728
166	0.7330	114	0.2716	0.5023
167	0.3818	13	0.1559	0.2688
167	0.3818	67	0.3252	0.3535
167	0.3818	72	0.4004	0.3911
167	0.3818	138	0.3910	0.3864
167	0.3818	159	0.3621	0.3719
167	0.3818	165	0.1182	0.2500
167	0.3818	177	0.3078	0.3448
167	0.3818	191	0.2755	0.3286

Table 10e: Work Values- continued  
 Dyad Profile of Supervisor/Subordinate Correlations

MGR EEID	MGR_MGR Correlation	SUB EEID	MGR_SUB Correlation	DYADPOF
175	0.6139	44	0.3395	0.4767
175	0.6139	58	0.1122	0.3630
175	0.6139	73	0.3655	0.4897
175	0.6139	76	0.4122	0.5131
175	0.6139	112	0.2775	0.4457
175	0.6139	118	0.3001	0.4570
175	0.6139	132	0.3941	0.5040
187	0.3631	69	0.4455	0.4043
187	0.3631	122	0.3023	0.3327
187	0.3631	154	0.5065	0.4348
192	0.7206	33	0.4852	0.6029
192	0.7206	56	0.2044	0.4625
192	0.7206	105	0.3233	0.5220
192	0.7206	107	0.2826	0.5016

Table 11:  
Correlation Matrix Work Values Profiles, Leader-Member Means, and Outcomes

	1	2	3	4	5	6	7	8	9	10	11
COMPENT --											
LOYALTY	.41**	--									
AFFECT	.49**	.84**	--								
ATENITION	.38**	.85**	.75**	--							
QUALITY	.41**	.78**	.69**	.87**	--						
PERFORMS	.77**	.69**	.76**	.60**	.59**	--					
ORGCMMT	.19*	.15	.19*	.17	.15	.19*	--				
TURNOVER	-.31**	-.12	-.17	-.11	-.13	-.19*	-.53**	--			
JOBSATFC	.32**	.59**	.48**	.69**	.68**	.45**	.48**	-.46**	--		
MGR_SUB	-.03	-.09	.10	.13	.11	.00	.14	-.20*	.24**	--	
DYADPOF	-.02	.05	.00	-.03	.05	.02	-.18*	.08	-.06	.53**	--

Table 12a:  
Multiple Regression - Work Values Model on Subordinate  
Performance:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	0	0.00	.	.	.
Error	109	47.15	0.43		
R-square	0.000	Adj. R-square		0.0000	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	4.746	.063	75.69	.000	.000

Multiple Regression - Work Values Model on Organizational  
Commitment:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	2	5.49	2.748	6.68	0.002
Error	107	44.03	0.412		
R-square	0.111	Adj. R-square		0.0944	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	5.241	.264	19.82	.000	.000
MGR_SUB	1	1.844	.603	3.06	.003	1.397
DYADPOF	1	-2.515	.757	-3.32	.001	1.397

Step	Variable Entr/Rem	In	Stepwise Summary		F-Value	Sig. F
			Partial R-square	Model R-square		
1	DYADPOF	1	.033	.033	3.718	.056
2	MGR_SUB	2	.077	.111	9.352	.003

Table 12b:  
Multiple Regression - Work Values Model on Turnover  
Intentions:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	2	14.66	7.330	4.91	0.009
Error	107	159.78	1.493		
R-square	0.084	Adj. R-square		0.0669	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	1.988	0.504	3.95	.000	.000
MGR_SUB	1	-3.469	1.149	-3.02	.003	1.397
DYADPOF	1	3.338	1.441	2.32	.023	1.397

Step	Variable Entr/Rem	In	Stepwise Summary		F-Value	Sig. F
			Partial R-square	Model R-square		
1	MGR_SUB	1	.038	.038	4.281	.041
2	DYADPOF	2	.046	.084	5.362	.023



Table 12c:  
Multiple Regression - Work Values Model on Job Satisfaction:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	2	5.39	2.693	6.27	0.003
Error	107	45.97	0.429		
R-square	0.105	Adj. R-square		0.0882	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	4.595	.270	17.01	.000	.000
MGR_SUB	1	2.148	.616	3.49	.001	1.397
DYADPOF	1	-1.845	.773	-2.39	.019	1.397

Step	Variable Entr/Rem	In	Stepwise Summary		F-Value	Sig. F
			Partial R-square	Model R-square		
1	MGR_SUB	1	.057	.057	6.557	.012
2	DYADPOF	2	.048	.105	5.697	.019

Table 13a:  
Multiple Regression - Full Model Subordinate Performance:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	3	37.89	12.53	138.87	0.000
Error	106	9.26	0.09		
R-square	0.797	Adj. R-square		0.7914	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	-.847	.314	-2.70	.008	.000
COMPTE <sup>T</sup>	1	.696	.066	10.58	.000	1.307
LOYALTY	1	.188	.082	2.30	.023	3.483
AFFECT	1	.273	.068	4.02	.000	3.783

Step	Variable Entr/Rem	In	Stepwise Summary		F-Value	Sig. F
			Partial R-square	Model R-square		
1	COMPTE <sup>T</sup>	1	.596	.596	159.226	.000
2	AFFECT	2	.191	.787	96.076	.000
3	LOYALTY	3	.010	.797	5.290	.023

Table 13b:  
Multiple Regression - Full Model on Organizational  
Commitment:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	3	7.40	2.47	6.210	.001
Error	106	42.13	0.40		
R-square	0.150	Adj. R-square		0.1254	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	3.935	.650	6.05	.000	.000
COMPTENT	1	.265	.121	2.19	.031	1.001
MGR_SUB	1	1.868	.593	3.15	.002	1.398
DYADPOF	1	-2.501	.744	-3.36	.001	1.398

Step	Variable Entr/Rem	In	Stepwise Summary		F-Value	Sig. F
			Partial R-square	Model R-square		
1	COMPTENT	1	.038	.038	4.271	.041
2	DYADPOF	2	.032	.070	3.655	.059
3	MGR_SUB	3	.080	.150	9.928	.002

Table 13c:  
Multiple Regression - Full Model on Turnover Intentions:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	3	31.95	10.65	7.924	.000
Error	106	142.49	1.34		
R-square	0.183	Adj. R-square		0.1601	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	5.921	1.196	4.95	.000	.000
COMPTENT	1	-0.798	.222	-3.59	.001	1.001
MGR_SUB	1	-3.540	1.090	-3.25	.002	1.398
DYADPOF	1	3.295	1.368	2.41	.018	1.398

Step	Variable Entr/Rem	In	Stepwise Summary		F-Value	Sig. F
			Partial R-square	Model R-square		
1	COMPTENT	1	.097	.097	11.596	.000
2	MGR_SUB	2	.042	.139	5.153	.025
3	DYADPOF	3	.045	.183	5.804	.018

Table 13D:  
Multiple Regression - Full Model on Job Satisfaction:

Source:	DF:	Analysis of Variance		F-Value	Sig.F
		Sum of Squares	Mean Square		
Model	4	28.80	7.20	33.52	.000
Error	105	22.55	.21		
R-square	0.561	Adj. R-square		0.5441	

Variable:	DF:	Parameter Estimates			Sig.  T	VIF
		b	Std. Error	T for H <sub>0</sub>		
Intercep	1	0.702	0.459	1.53	.129	.000
ATENTION	1	0.398	.173	2.30	.023	4.300
QUALITY	1	0.425	.143	2.98	.004	4.218
MGR_SUB	1	1.538	.445	3.45	.001	1.460
DYADPOF	1	-1.529	.560	-2.73	.008	1.469

Step	Variable Entr/Rem	In	Stepwise Summary		F-Value	Sig. F
			Partial R-square	Model R-square		
1	ATENTION	1	.481	.481	100.214	.000
2	QUALITY	2	.026	.507	5.547	.020
3	MGR_SUB	3	.023	.530	5.147	.025
4	DYADPOF	4	.031	.561	7.447	.008

## **CURRICULUM VITAE**

## CURRICULUM VITAE

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#### EDUCATION:

Ph.D., Virginia Polytechnic Institute and State University, May, 1993.  
Major: Organizational Studies and Human Resource Management  
Minor: Industrial and Organizational Psychology  
Dissertation: *Leader-member exchange and work value congruence: A multiple levels approach.*

M.Arch., Georgia Institute of Technology, June 1983.  
Thesis: *Architectural practice: An analysis of the effects of firm size on the implementation of formalized organizational elements*

B.S., Georgia Institute of Technology, June, 1981.  
Major: Architecture

École Nationale Supérieure des Beaux-Arts, Paris, France.  
Fourth year design - September, 1979 - June, 1980.

Catonsville Community College, Baltimore, Md.  
Architectural/Engineering, 1968 - 1970.

#### EXPERIENCE:

##### Academic:

Virginia Tech, Department of Management:

- Summer Session 1993, (*Undergraduate Instructor*)  
Course: Organizational Behavior
- August, 1992 - May, 1992, (*Research Assistant*)
- Summer Session 1992, (*Undergraduate Instructor*)  
Course: Organizational Behavior
- August, 1991 - May, 1992, (*Undergraduate Instructor*)  
Course: Personnel/Human Resource Management
- Summer Session 1991, (*Undergraduate Instructor*)  
Course: Organizational Behavior
- September, 1989 - July, 1991 (*Research Assistant*)  
Design and implementation of a study for a "Quality of Employment Survey" of classified staff employees.
- Summer Session 1990, (*Undergraduate Instructor*)  
Course: Personnel/Human Resource Management
- December, 1988 - September, 1989 (*Project Assistant*)  
Research Grant: \$73,634, Urban Mass Transportation Admin.,  
Design and implementation of three national workshops for transit managers who have responsibility for major policy decisions and are directly involved in the development of financial incentive programs.
- December, 1987 - December, 1988. (*Research Assistant*)  
The Barringer Center: Research, analysis, and data collection in the areas of gainsharing and financial incentives.

**Organizational:**

Thompson, Ventulett, Stainback and Associates:  
 • July, 1983 - October, 1987. (*Project Manager*)

Architectural: Misc./Self Employed  
 • January, 1977 - Summer, 1983. (*Architectural Designer*)

The Ryland Group:  
 • 1970 -1977 (*Architectural Manager*)

**RESEARCH INTEREST:**

Leadership- dyadic, team, and individual; interorganizational cultures; interorganizational values sharing; performance evaluation and enhancement; personality assessment; affirmative action; ADA 1990; CRA 1991; psychometrics of research instrumentation; and applications in international management.

**PUBLICATIONS:****Journals: (Refereed)**

- Harvey, R. J., and Murry, W. D. (In Press)  
 "Scoring the Myers-Briggs type indicator: Empirical comparison of preference versus latent-trait methods." *Journal of personality assessment*.
- Wimbush, J. C. and Murry, W. D. (In-review)  
 "The Americans With Disabilities Act and genetic screening in the workplace." *Manuscript submitted for publication*.
- Harvey, R. J., Murry, W. D., and Markham, S. E. (In-review).  
 "Evaluation of three short form versions of the Myers-Briggs Type Indicator using Item Response Theory." *Manuscript submitted for publication*.

**Journals: (Non-refereed)**

- Murry, W.D. and Underwood, K. (1984). "Management by textbook won't guarantee success." *Architectural Technology*. Spring.

**Book Articles: (Competitive and Refereed)**

- Markham, S.E., Murry, W.D., and Scott, K.D. (1992). "The configuration of leadership and performance appraisal: A multiple levels approach." In K. E. Clark, M. B. Clark and D. P. Campbell (Eds.), *The Impact of Leadership*. Greensboro, NC: The Center for Creative Leadership

**Proceedings and Conference Papers:**

- Harvey, R.J., Becker, R.L., Brill, R.T., Lawless, W., Murry, W.D., and Stamoulis, D.T. (1991). "Dimensionality of the Myers-Briggs type indicator." Paper Presented at the 99th Annual Convention of the American Psychological Association, San Francisco, CA.
- Markham, S.E., Murry, W.D., and Scott, K.D. (1990, July). "The configuration of performance appraisal: Investigating the impact of leadership and personality using a within- and between-supervisory group analysis." Presented to the 1991 Leadership Research Conference, Colorado Springs, Colorado.



**Technical Reports:**

- Murry, W. D. (1991). *The implementation and analysis of an Employee Opinion Survey*. AMF Bakery Systems, 87 pages.
- Scott, K.D., Markham, S.E., and Murry, W.D. (1989). *Financial Incentives in the Transit Industry*. U.S. Department of Transportation, Urban Mass Transportation Administration, 22 pages.
- Markham, S.E. and Murry, W.D. (1989). *Gainsharing: Implications of Awareness and Implementation for HR Managers*. The Barringer Center Reports, Virginia Tech, Blacksburg, Va., 13 pages.
- Scott, K.D. and Murry, W.D. (1989). *An examination of the relative value of Service Representative Jobs at Bell of Pennsylvania*. Templar Associates, Ltd., Blacksburg, Va., 81 pages.

**PROFESSIONAL ACCOMPLISHMENTS:**

Honors: Academy of Management Doctoral Consortium Participant.  
National Academy of Management Convention, Miami, FL.

Awards: "Award of Merit for Architectural Support," The Ryland Group, 1973.

Licenses: Architectural - State of Georgia.

**PROFESSIONAL AFFILIATIONS:**

National Academy of Management.  
American Psychological Association: Student Affiliate.  
Society for Industrial and Organizational Psychologists: Student Affiliate  
Southern Management Association  
American Institute of Architects.  
National Council of Architectural Registration Boards.

**SERVICE**

Vice-President: Management Department, Ph.D. Association,  
September, 1989 - August, 1990.

Vice-President: Piedmont Heights Civic Association,  
NPU-F, City of Atlanta.

**RELATED CONSULTING:**

Roanoke Times & World-News, 1992-1993.  
Full scale management evaluation and development for mid-level managers including: *cognitive skills evaluation, leadership skills assessment, leadership abilities assessment, and individual feedback sessions*.

AMF Bakery Systems, 1991.  
Implementation and analysis of an employee opinion survey.

Bell of Pennsylvania, 1989.  
Job evaluation and analysis of a service representative job.

