



132
144
THS

22423880

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 00571 3262

LIBRARY
Michigan State
University

This is to certify that the

thesis entitled


**DIFFERENTIAL LEADER-MEMBER EXCHANGE
INFLUENCES ON COMMUNICATION AND
ROLE STRESSORS**

presented by

Eric George Zook

has been accepted towards fulfillment
of the requirements for

MASTER'S degree in COMMUNICATION



Major professor

Date MAY 8, 1989



RETURNING MATERIALS:
Place in book drop to
remove this checkout from
your record. FINES will
be charged if book is
returned after the date
stamped below.

SEP 03 1992

| | |
|--|--|
| | |
|--|--|

DIFFERENTIAL LEADER-MEMBER EXCHANGE:
INFLUENCES ON COMMUNICATION AND
ROLE STRESSORS

By

Eric George Zook

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Communication

1989

ABSTRACT**DIFFERENTIAL LEADER-MEMBER EXCHANGE:
INFLUENCES ON COMMUNICATION AND
ROLE STRESSORS****By****Eric George Zook**

This paper examines the role of Leader-Member Exchange (Graen, 1976) on individuals' perceptions of role stress in the workplace. It is argued that differences in leader-member relationships influence the communication exchange of leaders and members (i.e., supervisors and subordinates) in terms of social support and participation in decision making. In turn, these are linked to perceptions of role ambiguity and role conflict on the part of the member. A general model testing these relationships provided a fair fit to the data, but failed to predict either role conflict or ambiguity. Subgroup analyses did reveal differences however. Specifically, employees with low job tenure perceived less role ambiguity in the face of informational support, while the role ambiguity of employees with supervisory responsibilities was reduced primarily by their ability to participate in decision making. In general, it appears that the impact of LMX on role stress is mediated by communication variables.

To Sabrina, whose existence
makes mine brighter

ACKNOWLEDGMENTS

Several people helped greatly in the production of this work. My greatest thanks and appreciation go to Kathy Miller, my chair. Her endless patience, good humor and dogged questioning helped to make this a much stronger work, as well as a less arduous task.

Appreciation also goes to the other members of my committee: Jim Stiff and Frank Boster. Their questioning provided strong insights for the extension of this work and helped reinforce in me that improvement in thought is always possible.

Judy Lyles made the data collection possible, despite the burden on her own research. For that, and her comraderie which helped maintain sanity in the process, I thank her.

My parents also deserve thanks for their unfailing support despite the different road I travel. Their love and encouragement underscore my accomplishments.

And finally, I am grateful to my new wife Sabrina, whose dogged determination to move to another state and explore life provided further motivation to complete this work. Furthermore, her intellectual curiosity and outlook provide constant enjoyment and challenge.

TABLE OF CONTENTS

| Chapter | Page |
|--|------|
| 1. THEORY AND LITERATURE REVIEW | 1 |
| Role Theory | 2 |
| Leader-Member Exchange | 5 |
| LMX Effects on Dyadic Communication | 12 |
| Communication Effects on Role Stress | 16 |
| Social Support | 17 |
| Sources of Support | 18 |
| Types of Support | 19 |
| Participation in Decision Making | 23 |
| A General Model of LMX, Communication and Stress | 24 |
| 2. METHODS | 28 |
| Sample | 28 |
| Research Procedures | 28 |
| Operationalization | 30 |
| Leader-Member Exchange | 30 |
| Social Support | 31 |
| Participation in Decision Making | 31 |
| Role Stress | 31 |
| Analysis | 36 |
| 3. RESULTS | 38 |
| Confirmatory Factor Analysis | 38 |
| Original LMX Scale | 39 |
| Standard Scales | 40 |

| Chapter | Page |
|--|------|
| Path Analysis | 42 |
| General Model | 47 |
| Models for High- and Low-Tenure Employees | 49 |
| Models for Supervisory and Non- Supervisory Employees | 57 |
| 4. DISCUSSION | 65 |
| Measurement Models | 65 |
| Path Models | 66 |
| Limitations and Directions for Future Research | 69 |
| Summary | 71 |
| List of References | 76 |

LIST OF TABLES

| Table | Page |
|---|------|
| 1. Leader-Member Exchange Scale | 32 |
| 2. Supervisor Social Support Scale | 33 |
| 3. Participation in Decision Making Scale . . . | 34 |
| 4. Role Ambiguity and Role Conflict Scale . . . | 35 |
| 5. Scale Items and Factor Loadings | 43 |
| 6. Correlations for Entire Sample | 46 |
| 7. Correlations for Low-Tenure Subgroup | 51 |
| 8. Correlations for High-Tenure Subgroup . . . | 52 |
| 9. Correlations for Non-Supervisory Subgroup | 59 |
| 10. Correlations for Supervisory Subgroup . . . | 60 |

LIST OF FIGURES

| Figure | Page |
|--|------|
| 1. General Model | 26 |
| 2. General Model for Entire Sample | 48 |
| 3. General Model for Low-Tenure Subgroup | 53 |
| 4. Revised Model for Low-Tenure Subgroup | 54 |
| 5. General Model for High-Tenure Subgroup | 55 |
| 6. Revised Model for High-Tenure Subgroup | 56 |
| 7. General Model for Non-Supervisory Subgroup | 61 |
| 8. Revised Model for Non-Supervisory Subgroup | 62 |
| 9. General Model for Supervisory Subgroup | 63 |
| 10. Revised Model for Supervisory Subgroup | 64 |

CHAPTER ONE: THEORY AND LITERATURE REVIEW

"The particular social self of a man is his image in the eyes of his own 'set' which exalts or condemns him as he conforms or not to certain requirements." (James, 1892; sexist language in original)

In setting forth his ideas concerning the "social self," William James marked the beginning of a long line of thought and research on the relationship between individuals and societies (Neiman & Hughes, 1951). In modern day parlance, however, James' social self is referred to as role. The concept of role has since become a major component of study in a variety of academic fields, most notably anthropology, sociology, psychology, management and communication. This paper provides a brief summary of the basic tenets of role theory, culminating in the more recent emphasis on dyadic linkage as espoused in Graen's (1976) theory of Vertical Dyadic Linkage (VDL). Role theory typically focuses on role stresses which arise due to the role forces produced by a person's role set. However, the position argued in this paper is that role stress is mediated by the differing amounts and quality of communication patterns associated with supervisor-subordinate dyads of differential quality.

A general model is developed which delineates the impact of differential supervisor-subordinate quality on communication aspects of the relationship, and the influence of the latter on perceived role stress.

Role Theory

As noted above, the concept of role has been espoused as the fundamental building block of society. That is, role represents the location where the expectations of other social actors combine with the expectations and actions of individual persons and result in human behaviors (Parsons, 1965, 1951; Goode, 1959; Merton, 1957). Linton (1936) defines role in this fashion as the behavior oriented to fulfilling the patterned expectations of others. It is this conception more than any which has spawned the vast amount of research on examining the strains associated with the reckoning of all these expectations.

Goode (1959) summarizes many of the early ideas concerning role strain. He examines a variety of role strains which individuals might experience as well as methods available for reducing these strains. In addition, he discusses the transactional nature of role relationships, applying an economic bargaining model as a way of understanding the role allocations of

individuals. Though on a more general level, this discussion raises ideas which Graen (1976) later emphasized in developing his ideas on VDL.

In the 1960s, emphasis shifted from the macro level of society to formal organizations. Due largely to the influential works of Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) and Katz and Kahn (1966), role research within organizations centered on the role strains of role conflict and role ambiguity. Role conflict is defined by Katz and Kahn (1966) as "the simultaneous occurrence of two (or more) role sendings such that compliance with one would make more difficult compliance with the other," (p. 184). Neither of these works, however, presents so clear a definition of role ambiguity. Kahn, et al., (1964) describe role ambiguity as uncertainty about what should be done to adequately fulfill one's role; specifically, they focus on uncertainty regarding how one's supervisor evaluates performance, opportunities for advancement, scope of responsibility and expectations of others regarding one's performance.

The most recent review of the research on role conflict and ambiguity was conducted by Van Sell, Brief and Schuler (1981). Using the role episode model developed by Kahn, et al. (1964), these authors

reported numerous inconsistencies across studies and a great deal of variance in different employee responses to these stressors. Particularly, in reference to the relationship between role sender-focal person relationships and interpersonal factors, Van Sell, et al. (1981) note a limited amount of research. However, studies in this area do suggest "that the structuring and supportive behavior of role senders (e.g., supervisors and co-workers), power of role senders, their functional importance to the focal person and the communication frequency between the role sender and focal person influence the focal person's perceptions of role conflict and ambiguity," (Van Sell, et al., 1981, p.55). It is suggested that greater understanding of how leadership style affects role stressors is but one area in need of further study.

Several researchers (Baird, 1969; Schriesheim & Murphy, 1976) have investigated this area, but have measured "general" leadership style such as structuring and consideration behavior (Blake & Mouton, 1964). Graen and his colleagues (Graen, 1976; Dansereau, et al., 1975) refer to this as the Average Leadership Style (ALS) approach and question two of its fundamental assumptions: (1) that all subordinates under a given manager are sufficiently homogenous to be

considered as a single entity, and (2) that a manager interacts in essentially the same manner with each of his or her subordinates.

To counteract these flaws, Dansereau, Graen, and Haga (1975) developed their VDL approach, more recently labeled Leader-Member Exchange (LMX). This approach focuses on how role negotiation yields relationships of differential quality among supervisor-subordinate dyads. This distinction seems particularly germane to a consideration of role stressors, since role ambiguity and role conflict can be linked back to this negotiation process and may be influenced by the quality of the dyadic relationship (Graen & Johnson, 1973). The present study seeks to apply Graen's (1976) work on LMX to role ambiguity and role conflict in the workplace. The theory and research behind LMX are developed more fully below.

Leader-Member Exchange

The Leader-Member Exchange model grew out of initial research by Graen, Dansereau, and Minami (1972) and has been presented as an alternative to the traditional view of leadership as a single-style approach (see Campbell, Dunnette, Lawler & Weick, 1971). Graen and his colleagues (Dansereau, et al.,

1975; Graen, et al., 1972) chose to apply the ideas of role negotiation as discussed by Kahn, et al. (1964) and Katz and Kahn (1966), to the leadership process.

The construct of role negotiation developed by Kahn, et al. (1964) correlates with Goode's (1959) ideas of economic pricing. At a minimum, Kahn, et al., (1964) argue that role negotiation will occur due to the problematic nature of communication; sent role expectations never equal received expectations due to encoding and decoding errors. Furthermore, the focal person has his or her own ideas of appropriate role behavior and will seek to define the role to allow maximal pursuit of personal goals.

Graen (1976) expands these ideas to argue that as a result of role negotiation, managers will develop relationships of differential quality with the various subordinates with which he or she works. Therefore, managers will have different styles of leadership with different subordinates rather than a general blanket approach to leading. Graen (1976) further argues that two major forces appear to cause this phenomenon: (1) the desire of subordinates to personalize their jobs, and (2) the desire of managers to engender extra assistance they cannot formally require under an employee contract. While no empirical support for

these causal forces has been presented, it is apparent from research that differentiations in leader-member relationships do occur.

According to a LMX perspective, all subordinates will seek to negotiate changes in their role as defined in the job description, if only by virtue of their attempt to translate the description into reality. However, managers will refrain from allowing too many subordinates to depart from the formal contract for a number of reasons (lack of personal resources to develop and maintain closer relations, inability or unwillingness to trust all subordinates to the same extent, etc.). These desires and concerns interact in the first four to six weeks of supervisor-subordinate interaction to stamp the relationship with a particular character (Graen, 1976). Longitudinal studies have been consistent in demonstrating the stability of these relationships (Graen, 1976; Dansereau, et al., 1975).

Thus, Graen (1976) identifies two subordinate groups with distinct types of leader-member exchange relationships. He labels these the "in-group" and the "out-group." Graen (1976) reserves the concept of leadership to characterize in-group relationships. The relationship between a manager and an out-group member is labeled as supervisory, and is built primarily on

the formal employment contract. Thus, out-group subordinates are expected to do little more than fulfill basic job requirements. A leadership relation, on the other hand, moves the interaction between a manager and subordinate to a more informal level where subordinates are allowed greater latitude in defining both the scope and activities of their job.

Research on the LMX distinction has yielded a number of intriguing findings (Dienesch & Liden, 1986; Graen, 1976; Dansereau, et al., 1975). In-group members do indeed report receiving greater freedom in defining their job responsibilities, more information, more managerial support and consideration, and greater influence in the decision-making process. In-group members also express more positive attitudes toward the intrinsic outcomes of their work, their interpersonal relationships with the manager, the technical competency of the manager, and the value of job performance rewards. Finally, managers were more likely to evaluate in-group members' role behavior as corresponding to expectations of appropriate role behavior and also viewed these members as more dependable.

Despite these findings, however, Dienesch and Liden (1986) identify a number of weaknesses in their

1975; Graen, et al., 1972) chose to apply the ideas of role negotiation as discussed by Kahn, et al. (1964) and Katz and Kahn (1966), to the leadership process.

The construct of role negotiation developed by Kahn, et al. (1964) correlates with Goode's (1959) ideas of economic pricing. At a minimum, Kahn, et al., (1964) argue that role negotiation will occur due to the problematic nature of communication; sent role expectations never equal received expectations due to encoding and decoding errors. Furthermore, the focal person has his or her own ideas of appropriate role behavior and will seek to define the role to allow maximal pursuit of personal goals.

Graen (1976) expands these ideas to argue that as a result of role negotiation, managers will develop relationships of differential quality with the various subordinates with which he or she works. Therefore, managers will have different styles of leadership with different subordinates rather than a general blanket approach to leading. Graen (1976) further argues that two major forces appear to cause this phenomenon: (1) the desire of subordinates to personalize their jobs, and (2) the desire of managers to engender extra assistance they cannot formally require under an employee contract. While no empirical support for

these causal forces has been presented, it is apparent from research that differentiations in leader-member relationships do occur.

According to a LMX perspective, all subordinates will seek to negotiate changes in their role as defined in the job description, if only by virtue of their attempt to translate the description into reality. However, managers will refrain from allowing too many subordinates to depart from the formal contract for a number of reasons (lack of personal resources to develop and maintain closer relations, inability or unwillingness to trust all subordinates to the same extent, etc.). These desires and concerns interact in the first four to six weeks of supervisor-subordinate interaction to stamp the relationship with a particular character (Graen, 1976). Longitudinal studies have been consistent in demonstrating the stability of these relationships (Graen, 1976; Dansereau, et al., 1975).

Thus, Graen (1976) identifies two subordinate groups with distinct types of leader-member exchange relationships. He labels these the "in-group" and the "out-group." Graen (1976) reserves the concept of leadership to characterize in-group relationships. The relationship between a manager and an out-group member is labeled as supervisory, and is built primarily on

the formal employment contract. Thus, out-group subordinates are expected to do little more than fulfill basic job requirements. A leadership relation, on the other hand, moves the interaction between a manager and subordinate to a more informal level where subordinates are allowed greater latitude in defining both the scope and activities of their job.

Research on the LMX distinction has yielded a number of intriguing findings (Dienesch & Liden, 1986; Graen, 1976; Dansereau, et al., 1975). In-group members do indeed report receiving greater freedom in defining their job responsibilities, more information, more managerial support and consideration, and greater influence in the decision-making process. In-group members also express more positive attitudes toward the intrinsic outcomes of their work, their interpersonal relationships with the manager, the technical competency of the manager, and the value of job performance rewards. Finally, managers were more likely to evaluate in-group members' role behavior as corresponding to expectations of appropriate role behavior and also viewed these members as more dependable.

Despite these findings, however, Dienesch and Liden (1986) identify a number of weaknesses in their

review of the LMX literature. Four of these are relevant to the present study and are discussed below.

The first problem plaguing the LMX literature noted by Dienisch and Liden (1986) is the conceptual confusion surrounding the leader-member exchange construct. Leader-member exchange has been conceptualized by at least six distinct definitions. Originally, LMX was defined in terms of the negotiation latitude granted to subordinates. However, over the years the definition has taken a variety of forms: degree of trust between leader and member, degree of perceived equity of exchange in the relationship by both leader and member, subordinate competence, degree of loyalty between leader and member, degree of mutual influence, and the amount of interpersonal affect between leader and member (Dienisch & Liden, 1986). Given this variety, the latter authors have suggested that LMX is a multidimensional construct made up of: (1) perceived contribution to the relationship, (2) loyalty (public support for goals and personal character of other), and (3) affect (mutual personal attraction among the dyadic members). A fourth dimension which appears to be tapped by typical LMX scales is recognition of personal accomplishments. An

original scale was developed and used in this study to assess possible multidimensionality.

Conceptual confusion has contributed to a second important weakness of the extant LMX literature--the lack of validation for scales purporting to measure leader-member exchange relationships. Over 18 years of research, LMX has been measured via 2-item, 4-item, 5-item, 7-item, 10-item, and 12-item scales, none of which has been psychometrically assessed.

Consideration of the face validity of these measures suggests the measurement of dimensions of leader-member relationships beyond the negotiating latitude that a member possesses in defining his or her role. A recent study by Duchon, Green, and Taber (1986) correlated sociometric assessments of LMX with one of the traditional self-report measures noted above and found general agreement between the results of both methods. However, this provides only indirect support for the validity of these scales. Psychometric evaluation of existing scales measuring the LMX construct is necessary to move LMX research beyond the current measurement obstacle.

Third, few conceptual or empirical arguments exist to support a dichotomous interpretation of the leader-member exchange construct, though almost all the

research to date has treated it as such, or followed an "in-middle-out" trichotomy (Dienisch & Liden, 1986). This seems part and parcel of the conceptual muddle discussed above. Given the wide range of negotiating outcomes possible in role-making episodes it seems more reasonable to consider the nature of the exchange relationship as a continuous variable.

Dienisch and Liden's (1986) final criticism of the LMX literature is the need for more extensive study of organizational outcome variables as they relate to leader-member exchange relationships, particularly performance. The current study attempts to expand our knowledge of these relationships through the examination of the effect of LMX distinctions on communicative behavior and role stress in the workplace. Though related work considering role rejectors and role acceptors has been done in the past (Johnson & Graen, 1973), no research has explicitly considered the LMX distinctions which arise via the negotiation phase and influence perceptions of role conflict and ambiguity. The most likely avenue by which LMX impacts these perceptions is through differences in the communication patterns across variations in dyadic quality. The next section delineates how LMX relates to several communication

variables, which are central to the role-making process.

LMX Effects on Dyadic Communication

Much of Graen's (1976) work on role negotiation and behavior expands on the research and theory of Kahn, et al., (1964) and Katz and Kahn (1966). It is no different when exploring the impact of LMX quality on dyadic communication.

Katz and Kahn (1966) note for instance, the near certainty that more communication will occur among some dyads than others. Among the reasons posited for this occurrence are personality characteristics of individuals, role prescriptions, and proximity and other constraints attached to positional placement in the group's communication structure. It requires but a small shift in focus to argue that as a member of a work group (albeit the formal leader), a manager will develop different patterns of communication with various subordinates. The concept of LMX therefore, provides us with a way of understanding how communication might be structured and differences arise across dyads.

One of the most consistently reported relationships between LMX quality and communication is

in the area of supervisory social support. Graen (1976) presents two studies in which subordinates in higher quality relations reported receiving higher job latitude, more information, more support of their actions, and greater consideration of feelings and needs than did out-group members. Liden and Graen's (1980) test for LMX generalizability with first-line supervisors and subordinates reveal consistent findings; high LMX subordinates reported receiving greater attention, support, and interpersonal sensitivity from their supervisors, in comparison with those in low quality LMX dyads. Similar findings also appear in Graen, Liden, and Hoel (1982): "Those members reporting higher quality exchanges described leaders who frequently talked to them about the details of their job performance, about their personal and work problems, and about ways to improve their effectiveness," (p.871). This contrasts with low quality exchange members who reported that leaders seldom or never talked to them about their effectiveness.

A second communication variable of interest as a mediating variable between LMX and role stress is participation in decision making. Fewer studies of LMX have considered this variable, though Graen (1976) did

find that high LMX subordinates reported greater influence in the decision process. In the only study to specifically examine the decision making process, Scandura, Graen, and Novak (1986) found an interaction effect between subordinate LMX and productivity: the greatest involvement was reported among subordinates with high quality LMX/high productivity and the lowest among those with low quality LMX/low productivity.

The results discussed in both sections above are not surprising given the close relationship between supervisor and subordinate in high quality LMX dyads. The subordinate's input into decision making would be highly valued by supervisors who see the employee's behavior as more "role appropriate" (Graen, 1976). Similarly, supervisors can be expected to provide disproportionate levels of social support to high quality relationships in the work unit, since this would likely yield a greater return on investment.

It is important to distinguish here between the LMX relationship itself and the communication variables associated with that relationship. As conceptualized in this thesis, leader-member exchange is a relational quality assessment which serves to arrange relationships in a hierarchy of importance or value. Such distinctions are easily made between strangers,

acquaintances, friends, family and lovers. Though more subtle in organizational settings, LMX research has consistently revealed the existence of such a relational hierarchy (Dansereau, et al., 1975; Graen, 1976). Social support and participation in decision making, on the other hand, are both communicative behaviors. As such, they can be applied across relationships in differing quantities and qualities. As a relationship grows more important, we are likely to engage more frequently in communicative behaviors of social support, and in the business setting, greater amounts of participation in decision making functions. This change in communicative patterns can most likely be attributed to the increasing trust associated with members of valued relationships.

This distinction between relational quality and its outcomes is important. As the quality difference reverberates through dyadic interaction, it will produce specific changes in the communication patterns which characterize the relationship. These different patterns in turn, affect both the amount of perceived role stress as well as the way individuals cope with it.

Communication Effects on Role Stress

The influence of communication on perceptions of role stress can be attributed to the uncertainty which underlies both role ambiguity and role conflict. The former stressor is primarily uncertainty about various aspects of role behavior. The latter, however, also contains a minimum implication of uncertainty as to which role expectations are most important and vital as well as whether or not one will be able to fulfill them.

In this context, PDM and social support can be seen as mechanisms which aid individuals in reducing, or at least managing, their uncertainty. Sutton and Kahn (1987) discuss the need for employees to predict, understand, and control their work environment as a manner of avoiding various strains. Anything which can help organizational members develop appropriate causal relationships to guide their actions will be useful in this endeavor. Clearly, information about existing or potential stressors in the work place can increase one's perception of personal control and may be provided through either PDM or social support. Social support also has emotional and instrumental dimensions which can address a breadth of strain situations. The

process whereby this is accomplished is examined separately for each variable in the following discussion.

Social Support

The term social support constitutes a broad range of meaning and has become the focus of a large body of research in its own right. The majority of this literature has focused on how social support functions to help individuals in situations of stress: parents of children with cancer (Chesler & Barbarin, 1984), patients with cancer (Wortman, 1984; Wortman & Dunkel-Schetter, 1979), persons who have lost a spouse, child or other relationally close individual (see review in Albrecht & Adelman, 1987) and persons suffering physical or mental ailments (DiMatteo & Hays, 1981). Our understanding of social support has also been applied to a variety of organizational stressors; Ray's (1987) review of the literature in this area reveals positive relationships with successful socialization, better and more useful performance appraisals, and appropriate adaptation to organizational changes.

While a variety of social support definitions appear in the literature, Albrecht and Adelman (1987) build a definition focusing on its role in reducing

uncertainty; social support is "the verbal and nonverbal communication between recipients and providers that reduces uncertainty about the situation, the self, the other, or the relationship, and functions to enhance a perception of personal control in one's life," (p.19).

Sources of Support. Within organizations, the main sources of support are direct supervisors and co-workers (Ray, 1987). Jayaratne and Chess (1984), however, have identified the supervisor as the key support source. Furthermore, Miller, Ellis and Zook (1988) report a strong relationship between supervisor support and role stress (using a combined measure of role conflict and ambiguity) for both support staff and caregivers at a large psychiatric hospital. In general, the relationship between supervisor support and role ambiguity appears to be most consistent (Seers, Mcgee, Serey & Graen, 1983; Jayaratne & Chess, 1984) although LaRocco, House and French (1980) report a negative correlation with role conflict as well.

These findings are consistent with the view that supervisors have greater access to organizational resources and control over altering conditions of role ambiguity and role conflict (Graen, 1976). If the supervisor is the source of the problem and can be made

sufficiently aware of this, he or she is most capable of resolving the issue. If the source comes from other organizational members with whom the subordinate interacts, the supervisor is organizationally situated with the power and authority to seek resolution of the matter. Given this, and the focus of the current study on LMX, only supervisor support is considered.

Types of Support. The research on social support has identified three basic types of support: cognitive, emotional and instrumental (Jacobson, 1986). Cognitive support is information, knowledge and/or advice that helps an individual understand and deal effectively with his or her world. This may range from helping individuals engage in reframing situations to teaching people new skills with which they may better control their environment (Albrecht & Adelman, 1987). In keeping with the general usage in much of the support literature, this form will be labeled as informational support through the remainder of this thesis.

Emotional support reinforces an individual's sense of self-worth through messages of admiration, respect and love. The acceptance provided by such support allows individuals to maintain some sense of personal respect and control despite the stressful situation in which he or she is currently enmeshed.

Instrumental support refers to goods and services that help an individual solve specific problems. These activities include such things as shopping for a sick friend, taking care of a neighbor's pets while they're on vacation and bringing food to families who have recently suffered the loss of a loved one.

Jacobson (1886) also discusses relationships among support types and posits a linear model ranging from emotional through informational to instrumental. Little research has been done in this area however. Still, it seems likely that a distinction can be made between emotional and informational support on the one hand, and instrumental support on the other. This distinction can be understood as a degree of ease in providing the support. That is, emotional and information support are constantly and instantly at one's disposal, since they are based primarily on relational and situational knowledge of the other by a support giver; this knowledge allows appropriate response to persons in stress situations. Instrumental support, on the other hand, may likely require the martialing of resources not readily available, therefore requiring greater effort of coordination. It also is typically more demanding on one's time and energy and therefore most likely in

closer personal relationships. Thus, the extent to which emotional and informational support are forthcoming increases the trust and positive affect in the relationship such that one is more likely to give instrumental support which typically requires more of oneself. It is posited here then that emotional and informational support are precursors to instrumental support. The next step is to link the impact of support type with role ambiguity and role conflict.

In spite of consistent findings of negative relationships between social support and stress in a variety of areas, no research to date has investigated their varying impact on role conflict and role ambiguity. Therefore, the extent to which formal hypotheses may be stated is limited, though some preliminary statements appear warranted.

Given the nature of the role stressors under consideration, informational support should have a strong impact on role ambiguity. Since the problem is an unclear definition of one's role, additional information can clarify the role, thus decreasing one's level of stress. Informational support may also help individuals in role conflict by establishing priorities among conflicting roles and requirements, but this possibility is does not warrant a full hypothesis.

Emotional support probably performs a buffering role for these stressors. That is, it can provide employees with a sense of acceptance and self-worth while they "learn the ropes" and gain greater control over the organizational environment. This is no doubt valuable, but without appropriate informational support, nothing is done to eradicate the source of the problem; the stressors still lurk in the environment. Thus, while emotional support should increase with LMX quality, it is unlikely that it will directly impact either role conflict or role ambiguity, other than through an indirect path through instrumental support.

The role of instrumental support will function primarily in situations of role conflict. Such situations can be dealt with by temporarily assigning another coworker to help an individual with conflicting roles, or creating a new position to unburden an employee with too many role demands. It seems unlikely that role ambiguity is either directly or indirectly affected by instrumental support. Indeed such "support" might be perceived as threatening if it implied that the individual had no idea of the job and was incapable of performing in a satisfactory manner.

Thus, social support from one's supervisor should prove an invaluable form of communication for influencing employee perceptions of role stress. This underscores the importance then of supervisory support being a function of LMX differences across dyads in a work group.

Participation in Decision Making

The second communicative variable which is likely to affect role stress is participation in decision making. A meta-analysis by Miller and Monge (1986) provides evidence that both worker satisfaction and productivity can be positively influenced by employee involvement in the decision-making process. Their results suggest that participation works to some extent through a cognitive process in which workers become more productive and satisfied due to increased information and personal control (i.e., less uncertainty).

Jackson (1983) provides further support for a link between PDM and the role stressors incorporated in this study. She manipulated participation at a hospital outpatient facility by increasing the number of meetings held with work groups; unit supervisors received training on how to run effective meetings and given a list of important potential topics to address

in these meetings. The results showed strong negative relationships between PDM and both role conflict and ambiguity after six months. These stressors in turn strongly influenced employees' emotional stress and via that, overall job satisfaction, absenteeism and turnover intention. The importance of limiting role conflict and ambiguity is thus emphasized, as is PDM as a method for accomplishing this.

Jackson's study (1983) is of further note in that its findings are consistent with the distinction made in the present study between participation in decision making and social support. Though there is a potential overlap between informational support and participation in decision making, these constructs can be distinguished in that participation is focused on the ability of subordinates to wield influence in the decision making process while informational support involves the acquisition of sufficient information to perform one's task. Thus, it is the difference between use of information and the acquisition of information.

A General Model of LMX, Communication and Stress

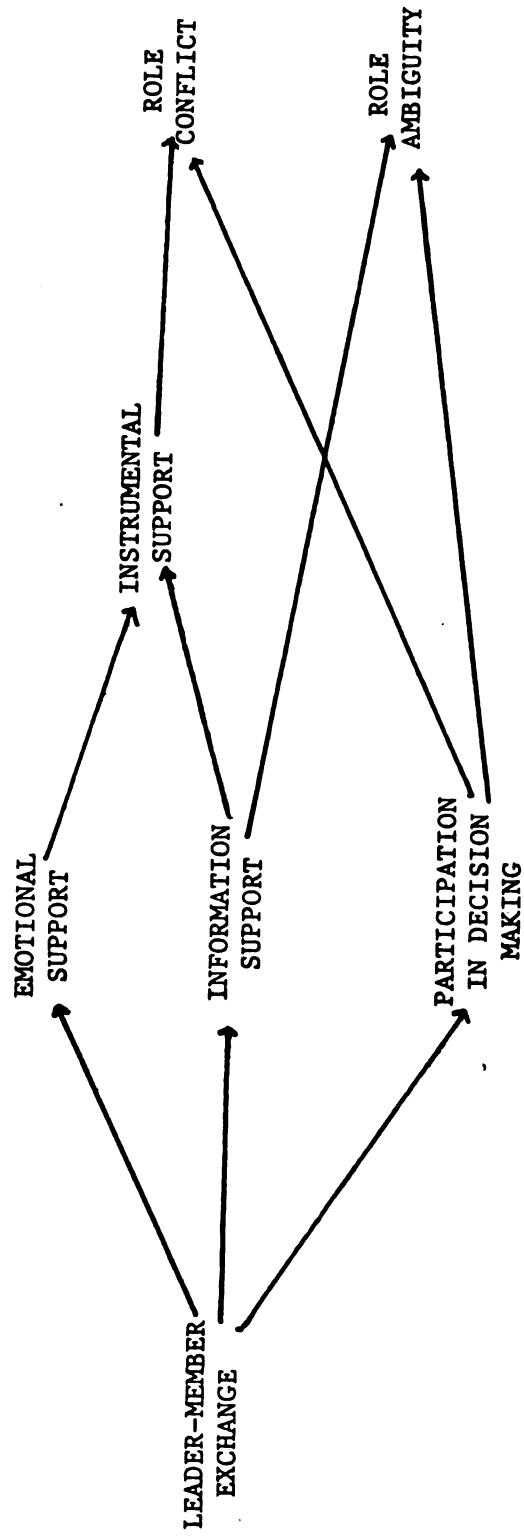
Given the research and theory reviewed above, a general model can be developed which incorporates the variables of interest. Specifically, the leader-member

exchange relationship serves as the exogenous variable. This is conceptualized as the quality of relationship between each leader-member dyad. LMX quality then affects the extent to which subordinates receive both social support from their supervisor and opportunities to participate in the decision making process.

Preliminary support for these linkages is found in Graen (1976). As described above, participation in decision making is hypothesized to have a negative relation with perceptions of role ambiguity and role conflict. Schuler and Jackson (1986) point out that "the more participation allowed employees, the more likely they will be able to get a clearer understanding of what is expected and what is rewarded (Schuler, 1980). Consequently, the less uncertainty and stress there is for the individual" (p. 215). This is in keeping with Miller and Monge's (1986) cognitive model of participation.

Given larger amounts of each social support type, it is expected that members of high LMX dyads will report lower amounts of both role stressors as well. Specifically, it is hypothesized that informational support will be negatively related to role ambiguity and that instrumental support will be negatively related to role conflict. Emotional support serves

Figure 1. General Model



only as a precursor to instrumental support, in conjunction with informational support.

It should be noted that this general model presents the LMX construct as a unitary concept, although the literature reviewed above suggests that it might be multidimensional in nature. Given the lack of theory development and research on this conceptualization, the current study focuses only on exploratory operationalization. Should psychometric evaluation of this measure suggest multidimensional constructs, links involving specific dimensions of LMX and social support can be explored.

CHAPTER 2: METHODS

This chapter explains the methods used to investigate the role of communication as an intervening variable between LMX and role stress. First, the sample from which the data were gathered is discussed, followed by a statement of the procedures for data collection. Then the operationalization of each variable is examined. The final section describes the methods of analysis used in the study.

Sample

Data for this study were collected at a midwest blood processing facility and its two satellite offices. This organization employs approximately 150 permanent employees and a small number of volunteers. It services the blood product needs of much of southern Michigan. In all, 94 surveys were returned and used in the analysis.

Research Procedures

The data collected for this study were part of a larger research project conducted with this organization. The general theme of the overall questionnaire was the role of LMX and communication network variables on role stress and burnout. The

relevant portions of the questionnaire will be presented below.

Due to the research involving network variables, it was necessary to be able to identify individuals. Mailing labels were acquired for each employee and affixed to a numbered survey. The researchers then organized and distributed these by department in the headquarters building. Batches of surveys were mailed to the personnel directors of the satellite offices for distribution there.

Each survey contained a cover page which described the research and assured respondents of the confidentiality of their responses. As noted above, anonymity could not be offered, and as often as possible, researchers reaffirmed the pledge of confidentiality in person.

Employees were given time during the work day to complete the surveys and return them to several sites in the building. The researchers were available at headquarters for the first two days of data collection during which the majority of completed surveys were received. Employees who could not complete the surveys that quickly or who worked at a satellite office were asked to return completed surveys to the personnel office. The researchers checked back weekly with

personnel offices to collect additional surveys for the following month.

Operationalization

The proposed model required the operationalization of the following variables: (1) Leader-Member Exchange, (2) supervisor social support (cognitive, emotional, and instrumental), (3) participation in decision making, and (4) role stress (role ambiguity and role conflict). Because this study was concerned with perceptions of the workplace, all variables were assessed with self-report measures. All items were responded to using a five-point scale with anchors of "Never" and "Always."

Leader-Member Exchange

LMX was assessed using a revised version of Graen, Novak and Sommerkamp's (1982) seven-item measure of LMX. This measure was expanded with items developed to capture more fully the multidimensionality scheme proposed by Dienisch and Liden (1986). (See Table 1). Psychometric evaluation of this scale took place in two stages. First, the original scale was assessed to check for unidimensionality of the items. Validation of this scale would allow direct comparison to past LMX research, and thus be the preferable option. It would also be consistent with the scientific goal of

parsimony. In the second stage, however, the expanded scale was assessed to explore multidimensionality not fully tapped by the original scale. The possibility of a more precise model would thus be afforded.

Social Support

Social support was assessed using Ford's (1985) social support scale. This instrument contains 27 items that tap emotional support, informational support and structural (instrumental) support (See Table 2).

Participation in Decision Making

Participation in decision making was measured using a three- item scale developed by Vroom (1960). This scale measures an individual's perceptions of his or her opportunity to participate and his or her influence in the decision making process (See Table 3).

Role Stress

Role ambiguity and role conflict was assessed with Rizzo, House and Lirtzman's (1970) scale. This scale contains a number of statements about the individual's role in the workplace. The anchors for these items were "very true" and "very false". Psychometric evaluation of the instrument across six samples reveals a basically sound measure (Schuler, Aldag & Brief, 1977), although Tracy and Johnson (1981) have questioned the confidence of this claim (See Table 4).

Table 1: Leader-Member Exchange Scale

 Read: "To what extent...

- ___ 1. ...do you know how satisfied or dissatisfied your superior is with what you do?
- ___ 2. ...does your superior understand your work problems and needs?
- ___ 3. ...do you feel that your superior recognizes your potential?
- ___ 4. ...would your superior be personally inclined to use his or her available power to help solve problems in your work?
- ___ 5. ...can you count on him or her to "bail you out" at his or her expense when you really need it?
- ___ 6. ...do you have confidence in your superior's decisions such that you would defend and justify them even if her or she were not present to do so?
- ___ 7. ...do you enjoy your relationship with your supervisor?
- ___ 8. ...do you trust your supervisor?
- ___ 9. ...do you find your relationship with your supervisor to be satisfying?
- ___ 10. ...can you contribute to the goals of your supervisor?
- ___ 11. ...do you believe your supervisor sees the value of your work and ideas?
- ___ 12. ...is your supervisor someone you would call a friend?
- ___ 13. ...can your supervisor be relied upon to take your side in an argument?
- ___ 14. ...do you enjoy spending time with your supervisor?
- ___ 15. ...do you find it easy to talk about personal matters with your supervisor?
- ___ 16. ...do you feel certain that your supervisor will back your decisions if questioned by others?
- ___ 17. ...would you be inclined to invite your supervisor to a social gathering?
- ___ 18. ...do you and your supervisor have compatible goals?
- ___ 19. ...are you and your supervisor able to help one another achieve organizational goals?
- ___ 20. ...are you and your supervisor able to help one another achieve personal goals?

Table 2: Supervisor Social Support Scale

 How often does or is your supervisor:

- ___ 1. Explain how to efficiently get things accomplished?
- ___ 2. Arrange opportunities for you to personally know those in upper management?
- ___ 3. Willing to listen to you?
- ___ 4. Explain the "political" aspects of your position?
- ___ 5. (Whose) association with you affords you organizational clout?
- ___ 6. Inform you of company policies and decisions which may affect you?
- ___ 7. Someone on whom you can depend?
- ___ 8. Inform you of key but unstated aspects of your position?
- ___ 9. Is fair in his or her assessment of you?
- ___ 10. See to it that you have a wide variety of challenging assignments?
- ___ 11. Someone whom you can trust?
- ___ 12. Inform you of potentially negative situations which may adversely affect you?
- ___ 13. Help you maximize your exposure within the organization?
- ___ 14. Give you helpful information about your coworkers?
- ___ 15. Inform you of the "unwritten" laws of your work environment?
- ___ 16. Has faith in your abilities?
- ___ 17. Inform you of potential resources?
- ___ 18. Strategize with you on how to use the system to your advantage?
- ___ 19. Is concerned that you reach your personal goals?
- ___ 20. Arrange for you to represent him/her in meetings with upper level management?
- ___ 21. See to it that you are known to upper level management as someone who produces results?
- ___ 22. (with whom) there is a mutual sharing?
- ___ 23. Use his/her influence to further your career?
- ___ 24. Arrange the opportunity for you to demonstrate your skills to upper management?
- ___ 25. (To whom) you can go for advice?
- ___ 26. See to it that you have special assignments of high priority to the organization?
- ___ 27. Encourage opportunities for you to grow?

Table 3: Participation in Decision Making Scale

- ___ 1. I have influence over what goes on in my work area.
- ___ 2. I have influence on the decisions of my supervisor regarding things with which I am concerned.
- ___ 3. It is easy to get my ideas across to my supervisor if I have a suggestion.

Table 4: Role Ambiguity and Role Conflict Scale

-
- ___ 1. I have enough time to complete my work.
 - ___ 2. I feel certain about how much authority I have.
 - ___ 3. I perform tasks that are too easy or boring.
 - ___ 4. I have clear, planned goals and objectives for my job.
 - ___ 5. I have to do things that should be done differently.
 - ___ 6. There is a lack of policies and guidelines to help me.
 - ___ 7. I am able to act the same regardless of the group I am with.
 - ___ 8. I am corrected or rewarded when I really don't expect it.
 - ___ 9. I work under incompatible policies and guidelines.
 - ___ 10. I know that I have divided my time properly.
 - ___ 11. I receive an assignment without the manpower to complete it.
 - ___ 12. I know what my responsibilities are.
 - ___ 13. I have to buck a rule or policy in order to carry out an assignment.
 - ___ 14. I have to "feel my way" in performing my duties.
 - ___ 15. I receive assignments that are within my training and capability.
 - ___ 16. I feel certain how I will be evaluated for a raise or promotion.
 - ___ 17. I have just the right amount of work to do.
 - ___ 18. I work with two or more groups who operate quite differently.
 - ___ 19. I know exactly what is expected of me.
 - ___ 20. I receive incompatible requests from two or more people.
 - ___ 21. I am uncertain as to how my job is linked to the organization.
 - ___ 22. I do things that are apt to be accepted by one person and not by others.
 - ___ 23. I am told how well I am doing my job.
 - ___ 24. I receive an assignment without adequate resources and materials to execute it.
 - ___ 25. Explanation is clear of what has to be done.
 - ___ 26. I work on unnecessary things.
 - ___ 27. I have to work under vague directives or orders.
 - ___ 28. I perform work that suits my values.
 - ___ 29. I do not know if my work will be acceptable to my boss.

Analysis

The investigation of the model proposed in this thesis consisted of two types of analysis. The first concerned the evaluation of the measurement models used in operationalizing each variable described above. The second step involved estimation of the structural equation model. Each of these steps is described in greater detail below.

The first step in the analyses was to identify the structural qualities of the self-report measures used in the study. Confirmatory factor analysis (Hunter & Gerbing, 1982) was used to confirm the factor structure of each measurement scale. The CFA subroutine of the PACKAGE computer program (Hunter & Lim, 1987) allows for a priori specification of factor structures. Three criteria are then used to assess the dimensionality of the scales: (1) homogeneity of item content, (2) internal consistency, and (3) parallelism with outside variables (Hunter, 1980). PACKAGE analyzes measurement models in terms of the latter two criteria and items which are inconsistent or nonparallel can be removed from each scale. This is done in an iterative process, eventually producing a measure for each variable which is unidimensional and low in measurement error.

Upon confirmation of the measurement models, the general path model was evaluated using a subroutine of the PACKAGE computer program (Hunter & Lim, 1987). The path models were tested using least squares estimation techniques (Hunter & Lim, 1987) and the need for model revision was assessed through an examination of model residuals. Where these residuals suggested the possibility of adding links to improve the fit of the model, the conceptual reasonableness of these links was considered. If the additional links were consistent with current theory and research in the areas under investigation, the model was revised and reevaluated.

CHAPTER III: RESULTS

This chapter presents the results of research investigating the impact of LMX quality on role conflict and ambiguity via differential communication patterns. First, the results of the confirmatory factor analyses investigating both standard and original scales are presented. This is followed by results for tests of the general model posited above. Finally, due to the loss of both role stressors in testing the model with the entire data set, its fit was investigated further using organizational subgroups developed along the lines of tenure and supervisory responsibilities. The results of path models at these lower levels are examined, appropriate revisions to the models are made and reanalyses performed.

Confirmatory Factor Analyses

Confirmatory factor analyses were performed on the proposed scales for the four dimensions (trust, loyalty, contribution to goals, and personal recognition) of LMX described above to assess their unidimensionality. Factor analyses were also used to examine the dimensionality of the standard scales used in this research: Graen, Novak and Sommerkamp's (1982) original LMX scale, Ford's (1985) measure of emotional,

informational, and instrumental social support, and Rizzo, House & Lirtzman's (1970) measure for role ambiguity and conflict. All of the proposed factors were evaluated in accordance with the three criteria suggested by Hunter (1980): item content, internal consistency of factors, and parallelism of factors with outside variables. The proposed LMX dimensions are discussed first, followed by the remaining scales in order of their placement in the model constructed in Chapter 1.

Original LMX Scale

It was predicted that the LMX measure used in this research would form four separate unidimensional factors: affect, loyalty, contribution to goals, and personal recognition. Despite rather high internal consistency and fairly good parallelism, the factors were very highly correlated (average correlation between factors = .87). Alphas for these subscales range from .87 to .94.

Given the intercorrelations noted above, all of these items were examined for a general order factor. The results clearly revealed a lack of empirical distinction between the scales, thus supporting a unidimensional interpretation of the LMX construct.

Finally, confirmatory factor analyses were performed on the original LMX scale used by Graen, Novak & Sommerkamp (1986). Concern with this scale arises in two respects. First, the majority of research on LMX has been performed with either this or a very similar operationalization; confirmation of this scale will provide validation of this past research. Furthermore, it will permit maximal comparison between this body of research and the present study. Second, the fewer items have a pragmatic advantage in terms of parsimony; if similar alphas may be achieved, it makes little sense to use a longer form.

The results of the original LMX scale reveal a strong unidimensional factor. Given this validation of the original scale, it was selected for use in the path model analyses. Items and factor loadings for this measurement model are provided in Table 5.

Standard Scales

The first standard scale subjected to confirmatory factor analysis was Ford's (1985) social support measure. A six-item solution was found for emotional support, resulting in the loss of two items which lacked parallelism. A seven-item solution resulted for informational support; one item was nonparallel with this solution. Finally, eight of the original 10 items

predicted to measure instrumental support formed a unidimensional factor.

As with the four dimensions of LMX, however, high correlations existed between these factors (average correlation = .79). This suggested the possibility of a single factor assessing overall levels of relational support within the supervisory dyad. Analyses to test for this general factor, however, failed to provide any support for this possibility. Thus, it appears that emotional, informational, and instrumental support are highly correlated but distinct constructs. Items and factor loadings for each social support scale are presented in Table 5.

A final general factor was explored to examine the distinctions between LMX and the three forms of support. The average correlation between these four factors was again high (.79). These analyses, however, confirmed the existence of separate factors, providing empirical support for the conceptual arguments made in Chapter 1.

Confirmatory factor analysis of Vroom's (1960) scale for participation in decision making revealed strong internal consistency and parallelism for all three items. Factor loadings for each item in this solution are provided in Table 5.

Finally, concerning role stress, it was predicted that the 15 items of role conflict (Rizzo, House & Lirtzman, 1970) would load on one unidimensional factor. However, following assessments of internal consistency and parallelism, an eight-item solution was achieved. The items and loadings for this factor are presented in Table 5.

The 14 items of role ambiguity (Rizzo, House & Lirtzman, 1970) were also predicted to load on a single unidimensional factor. However, confirmatory factor analysis revealed only a six-item solution. See Table 5 for list of items and factor loadings.

Path Analysis

The scales accepted from confirmatory factor analyses were used as input for conducting a path analysis on the general model. Correlations among the variables of interest in this research were computed using the PEARSON CORR subroutine of SPSS-PC+ (Norusis, 1986). The resulting correlations were corrected for attenuation due to measurement error using factor reliabilities attained in confirmatory factor analyses. These correlations along with means and standard deviations are presented in Table 6.

Table 5: Scale Items and Factor Loadings**SCALE: Leader-Member Exchange (Alpha = .91)**

To what extent...

- | | | |
|----|---|-----|
| 1. | ...do you enjoy spending time with your supervisor? | .87 |
| 2. | ...would your supervisor be inclined to use his or her available power to help solve problems in your work? | .82 |
| 3. | ...can you count on him/her to "bail you out" at his/her expense when you really need it? | .80 |
| 4. | ...would you defend and justify your supervisor's decisions if he/she were not present to do so? | .71 |
| 5. | ...do you enjoy your relationship with your supervisor? | .88 |

SCALE: Supervisor Emotional Support (Alpha = .89)

How often does/is your supervisor...

- | | | |
|----|--|-----|
| 1. | ...willing to listen to you? | .66 |
| 2. | ...someone on whom you can depend? | .88 |
| 3. | ...fair in his or her assessment of you? | .76 |
| 4. | ...someone whom you can trust? | .77 |
| 5. | ...has faith in your abilities? | .66 |
| 7. | ...available for advice? | .83 |

SCALE: Informational Support (Alpha = .91)

How often does/is your supervisor...

- | | | |
|----|--|-----|
| 1. | ...explain how to efficiently get things accomplished? | .70 |
| 2. | ...explain the "political" aspects of your position? | .79 |
| 3. | ...inform you of company policies and decisions which may affect you? | .72 |
| 4. | ...inform you of key but unstated aspects of your position? | .86 |
| 5. | ...inform you of potentially negative situations which may adversely affect you? | .82 |
| 6. | ...give you helpful information about your coworkers? | .81 |
| 7. | ...strategize with you on how to use the system to your advantage? | .71 |

Table 5: Scale Items and Factor Loadings (Cont.)

SCALE: Instrumental Support (Alpha = .94)

How often does/is your supervisor...

| | | |
|----|--|-----|
| 1. | ...arrange opportunities for you to personally know those in upper management? | .67 |
| 2. | ...see to it that you have a wide variety of challenging assignments? | .73 |
| 3. | ...help you maximize your exposure within the organization? | .95 |
| 4. | ...arrange for or encourage you to attend seminars and meetings that are important? | .82 |
| 5. | ...use his/her influence to further your career? | .81 |
| 6. | ...arrange opportunities for you to demonstrate your skills? | .82 |
| 7. | ...afford you organizational clout through association with him/her? | .80 |
| 8. | ...see to it that you are known to upper level management as someone who produces results? | .86 |

SCALE: Participation in Decision Making (Alpha = .76)

| | | |
|----|--|-----|
| 1. | I have influence over what goes on in my work area. | .56 |
| 2. | I have influence on the decisions of my supervisor regarding things with which I am concerned. | .90 |
| 3. | It is easy to get my ideas across to my supervisor if I have a suggestion. | .61 |

SCALE: Role Ambiguity (Alpha = .76)

| | | |
|----|--|-----|
| 1. | I feel certain about how much authority I have. | .66 |
| 2. | There is a lack of policies and guidelines to help me. | .55 |
| 3. | I know that I divide my time properly. | .50 |
| 4. | I know what my responsibilities are. | .56 |
| 5. | I know exactly what is expected of me. | .67 |
| 6. | Explanation is clear of what has to be done. | .61 |

Table 5: Scale Items and Factor Loadings (Cont.)

SCALE: Role Conflict (Alpha = .84)

| | | |
|----|---|-----|
| 1. | I have to do things that should be done differently. | .51 |
| 2. | I work under incompatible policies and guidelines. | .67 |
| 3. | I receive an assignment without the staff to complete it. | .46 |
| 4. | I have to buck a rule or policy in order to carry out an assignment. | .69 |
| 5. | I receive incompatible requests from two or more people. | .69 |
| 6. | I do things that are apt to be accepted by one person and not by others. | .66 |
| 7. | I receive an assignment without adequate resources and materials to execute it. | .78 |
| 8. | I work on unnecessary things. | .57 |

Table 6: Correlations for Entire Sample[@]

| ITEMS | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | -- | .87 | .78 | .69 | .69 | -.02 | -.05 |
| 2 | .78** | -- | .79 | .70 | .46 | -.15 | -.22 |
| 3 | .71** | .71** | -- | .86 | .56 | -.20 | -.10 |
| 4 | .64** | .64** | .80** | -- | .68 | -.08 | -.05 |
| 5 | .57** | .37** | .46** | .56** | -- | -.15 | .00 |
| 6 | -.02 | -.12 | -.17 | -.07 | -.11 | -- | .70 |
| 7 | -.04 | -.19 | -.09 | -.04 | .00 | .56** | -- |
| Means | 17.82 | 24.74 | 25.74 | 23.09 | 10.76 | 14.42 | 22.38 |
| S.D | 4.27 | 4.07 | 7.57 | 8.15 | 2.18 | 3.59 | 5.73 |

* p < .01

** p < .001

- 1 = Leader-Member Exchange
- 2 = Supervisor Emotional Support
- 3 = Supervisor Informational Support
- 4 = Supervisor Instrumental Support
- 5 = Participation in Decision Making
- 6 = Role Ambiguity
- 7 = Role Conflict

[@] Correlations in the lower half of the matrix are uncorrected for attenuation; corrected correlations appear in the upper half.

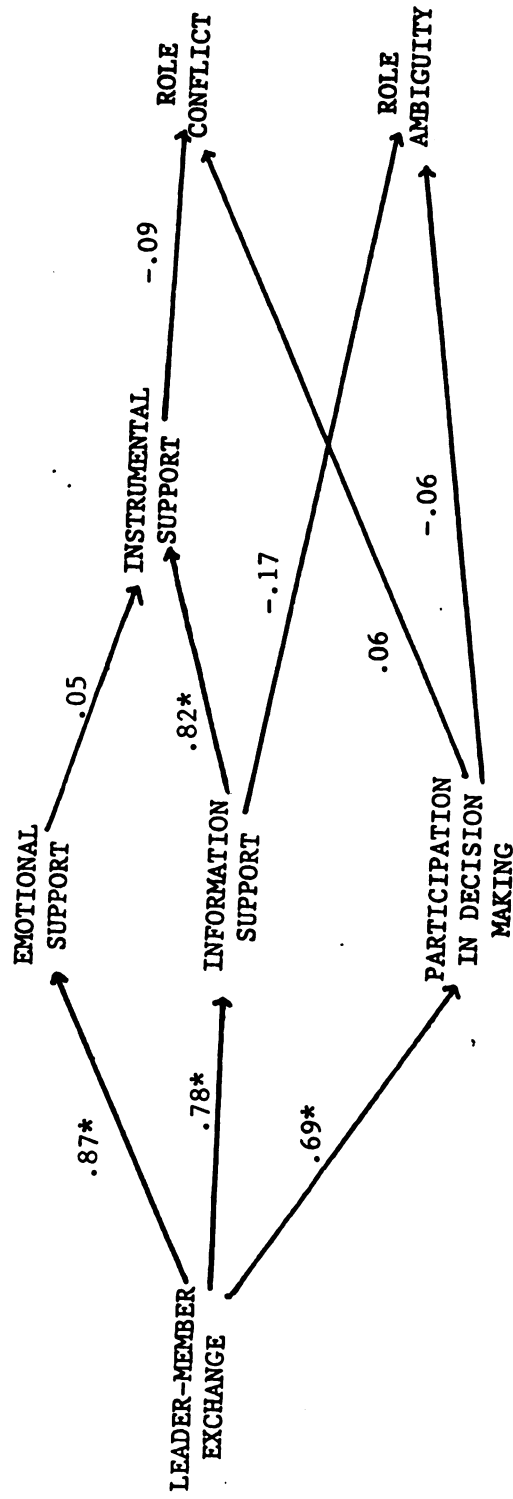
General model

The hypothesized general model, with path coefficients and standard errors are provided in Figure 2. This model presents a good fit to the data (average square error = .03) but is characterized by nonsignificant paths between the communication variables and role conflict and ambiguity. Thus, while confirming the strong links between communication and LMX, no impact is seen for the role stressors.

At this point, it was decided to explore the fit of the model among several organizational subgroups. The first distinction was made between respondents with supervisory responsibilities (N=36) and those without (N=55). T-tests revealed a significant number of differences between these two groups; employees with supervisory responsibilities reported higher levels of participation in decision making ($t = -3.36, p < .001$), as well as higher role ambiguity ($t = -.2.36, p < .020$) and role conflict ($t = -2.55, p < .012$). These findings suggested that participation might play a bigger role at higher levels in the organization.

A second distinction was made between employees with high and low tenure since both LMX (Graen, 1976) and role stressors (Ray, 1987) have greater impact early in the socialization experience. Median job tenure was approximately two years; respondents below

Figure 2. General Model for Entire Sample



* significant at $p .05$

this level were labeled as low-tenure employees (N=41), those above were labeled high-tenure employees (N=47). The main difference involved role ambiguity, with low tenure employees reporting greater amounts. However, this finding only approached significance ($t = -1.93$, $p < .57$). Given the direction of the difference on this variable, however, it was judged worthwhile to explore the fit of the model with these groups.

Models for High- and Low-Tenure Employees

Correlations for the variables of interest in this research were recalculated for employees with high and low tenure in the organization. Again these were corrected for attenuation due to measurement error. The corrected and uncorrected correlations, along with means and standard deviations for these groups are presented in Tables 7 and 8. The general model was tested with both subgroups.

The hypothesized general model tested with the low-tenure employee group is presented in Figure 3, with path coefficients. The model provides a fairly good fit to the data (average squared error = .04). A number of path coefficients were nonsignificant however, and were thus deleted from the model.

The final path model for the low-tenure employee group is presented in Figure 4. Role ambiguity was the

only dependent variable significantly related to the intervening communication variables. A test of the model shows a fairly good fit, as none of the reproduced correlations predicted by the model deviated from the observed correlations by more than one would expect due to sampling error alone. The average squared deviation was improved and very small (.002)

The hypothesized general model tested with high-tenure employees is presented in Figure 5, with path coefficients. The fit to the data was again quite good (average square error = .03). As with the low-tenure employee group, however, several path coefficients were non-significant and thus deleted from the model.

The final model for high-tenure employees is presented in Figure 6. Neither role conflict nor role ambiguity were significantly predicted within the model. Still, as with the entire data set, the model based on the relationships between LMX and the intervening communication variables provides a very good fit of the data. All reproduced correlations are within sampling error of the actual correlations and average squared error is .005.

Table 7: Correlations for Low-Tenure Subgroup[@]

| ITEMS | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | -- | .78 | .80 | .76 | .56 | -.23 | -.18 |
| 2 | .70** | -- | .73 | .58 | .26 | -.55 | -.29 |
| 3 | .73** | .66** | -- | .81 | .34 | -.59 | -.32 |
| 4 | .71** | .53** | .75** | -- | .65 | -.32 | -.15 |
| 5 | .46** | .21 | .28 | .54** | -- | -.26 | -.10 |
| 6 | -.19 | -.45* | -.49* | -.27 | -.19 | -- | .71 |
| 7 | -.16 | -.25 | -.28 | -.13 | -.08 | .57** | -- |
| Means | 17.80 | 25.03 | 26.18 | 24.33 | 10.61 | 15.24 | 23.45 |
| S.D | 3.93 | 3.60 | 7.08 | 7.71 | 2.05 | 3.46 | 5.35 |

* p < .01

** p < .001

- 1 = Leader-Member Exchange
- 2 = Supervisor Emotional Support
- 3 = Supervisor Informational Support
- 4 = Supervisor Instrumental Support
- 5 = Participation in Decision Making
- 6 = Role Ambiguity
- 7 = Role Conflict

[@] Correlations in the lower half of the matrix are uncorrected for attenuation; corrected correlations appear in the upper half.

Table 8: Correlations for High-Tenure Subgroup[@]

| ITEMS | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | -- | .92 | .82 | .72 | .88 | .11 | .09 |
| 2 | .83** | -- | .88 | .82 | .74 | .06 | -.16 |
| 3 | .75** | .79** | -- | .90 | .72 | .02 | -.03 |
| 4 | .67** | .75** | .83** | -- | .77 | .04 | -.07 |
| 5 | .72** | .60** | .59** | .64** | -- | -.08 | -.05 |
| 6 | .09 | .05 | .02 | .03 | -.06 | -- | .69 |
| 7 | .08 | -.14 | -.03 | -.06 | -.04 | .55** | -- |
| Means | 17.81 | 24.21 | 25.33 | 21.72 | 11.04 | 13.77 | 21.63 |
| S.D | 4.65 | 4.47 | 8.10 | 8.47 | 2.18 | 3.69 | 5.86 |

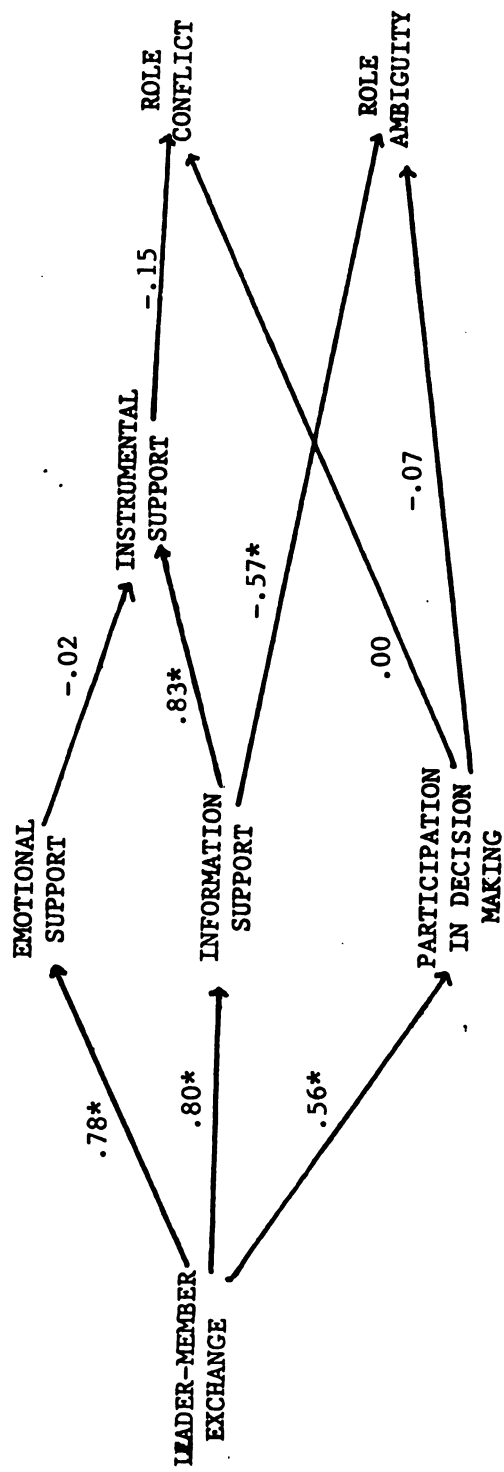
* p < .01

** p < .001

- 1 = Leader-Member Exchange
- 2 = Supervisor Emotional Support
- 3 = Supervisor Informational Support
- 4 = Supervisor Instrumental Support
- 5 = Participation in Decision Making
- 6 = Role Ambiguity
- 7 = Role Conflict

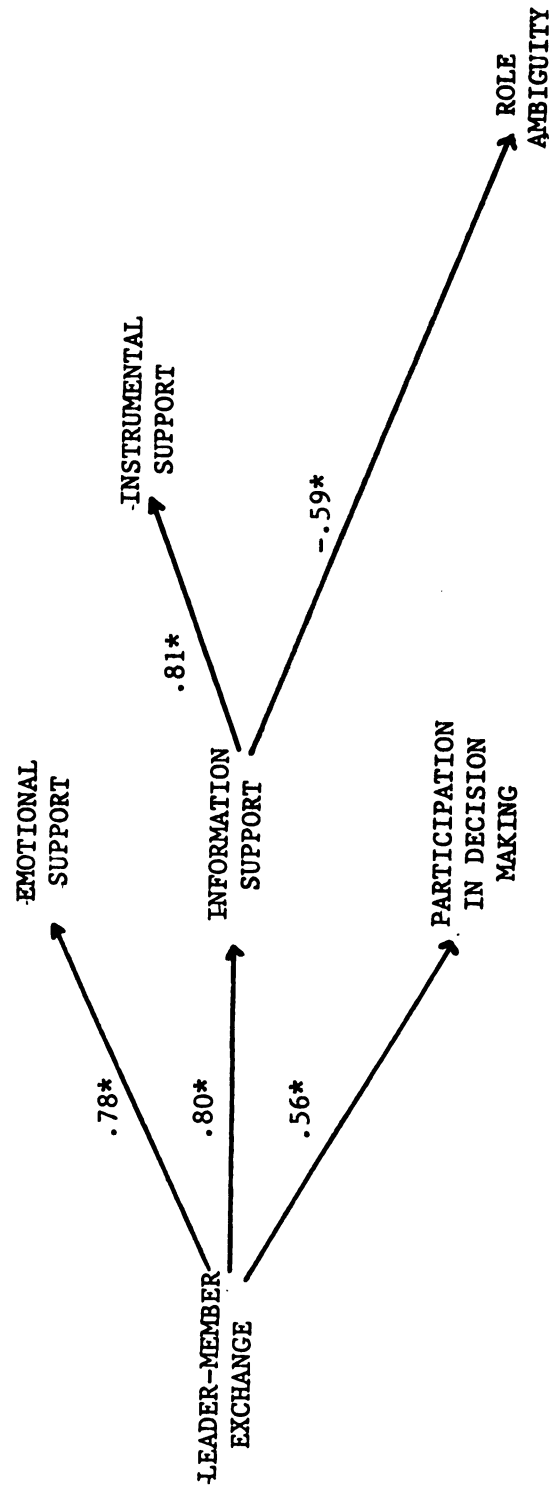
[@] Correlations in the lower half of the matrix are uncorrected for attenuation; corrected correlations appear in the upper half.

Figure 3. General Model for Low-Tenure Subgroup



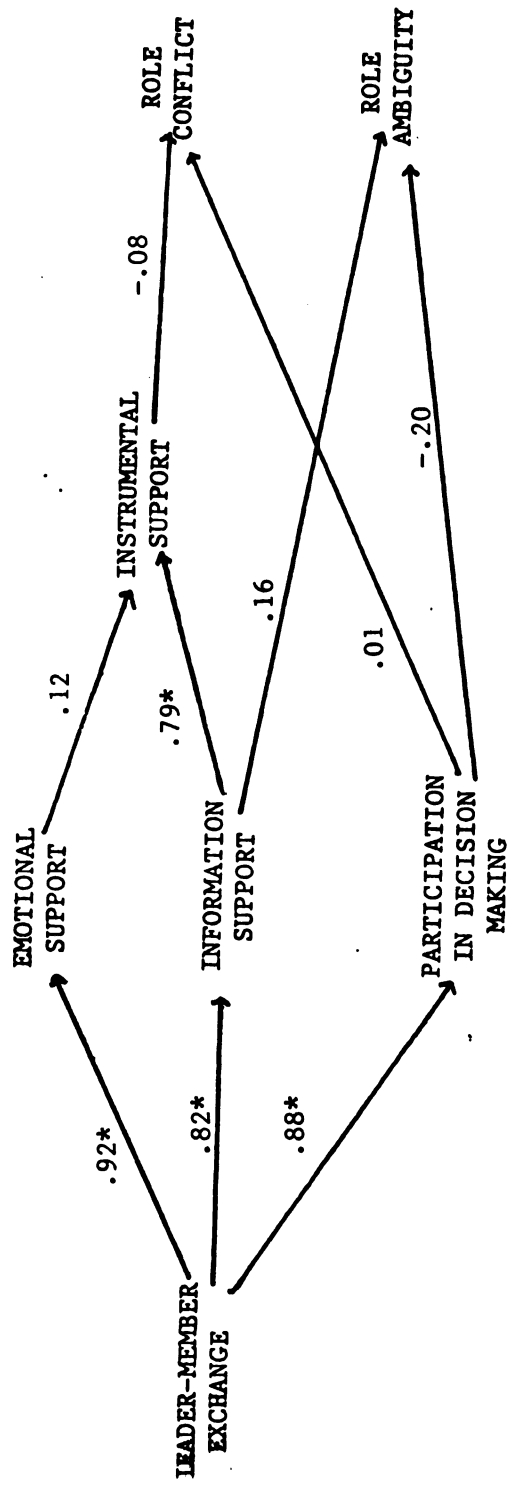
* significant at p .05

Figure 4. Revised Model for Low-Tenure Subgroup



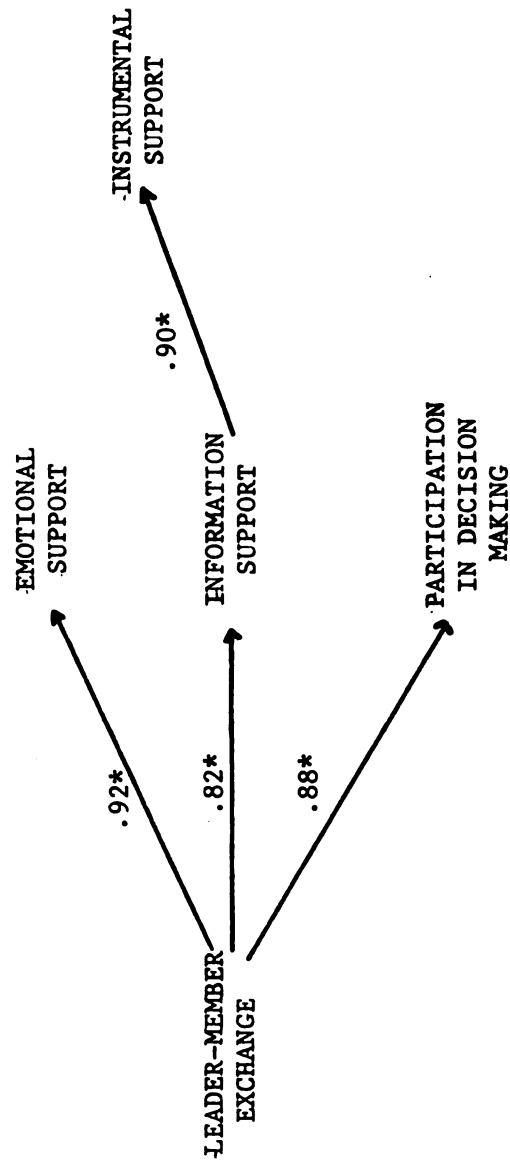
* significant at p .05

Figure 5. General Model for High-Tenure Subgroup



* significant at $p = .05$

Figure 6. Revised Model for High-Tenure Subgroup



*Significant at p .05

Models for Supervisory and Nonsupervisory Employees

In testing the general model at the supervisory and nonsupervisory levels, correlations among the variables for each group were once again computed. The corrected and uncorrected correlations, along with means and standard deviations for each group are presented in Tables 9 and 10.

The hypothesized general model tested with the nonsupervisory group is presented in Figure 7. As with both cases above, the model provided a good fit to the data (average squared error = .03) but contained nonsignificant path coefficients.

The final model for non-supervisory employees is presented in Figure 8. Again, both forms of role stress fall out of this model, leaving only the relations between LMX and the communication variables. As with the general model tested on full data, and the long-term employee model, the path coefficients between these elements are highly significant. Overall, the model fits well as all reproduced correlations are within sampling error of the actual correlations and average squared error is .01.

The hypothesized general model tested with supervisory employees is presented in Figure 9, with path coefficients and standard errors. The model

presents a good fit to the data (average squared error = .02) but contains a number of nonsignificant paths. These were dropped from the model which was reanalyzed.

The final path model for the supervisory group is presented in Figure 10. Role ambiguity is predicted by participation in decision making in this model. The model fits the data well. None of the reproduced correlations deviate from the actual correlations by more than sampling error, and the average squared error is .008.

Table 9: Correlations for Non-Supervisory Subgroup[@]

| ITEMS | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | -- | .90 | .78 | .76 | .77 | .00 | -.13 |
| 2 | .81** | -- | .87 | .81 | .57 | -.17 | -.31 |
| 3 | .71** | .78** | -- | .91 | .71 | -.20 | -.23 |
| 4 | .70** | .74** | .84** | -- | .70 | -.13 | -.20 |
| 5 | .63** | .46** | .58** | .58** | -- | -.21 | -.14 |
| 6 | -.00 | -.14 | -.17 | -.11 | -.16 | -- | .78 |
| 7 | -.11 | -.27 | -.20 | -.18 | -.14 | .62** | -- |
| Means | 17.87 | 24.69 | 25.98 | 21.75 | 10.21 | 13.73 | 21.18 |
| S.D | 4.76 | 4.46 | 8.14 | 9.10 | 2.31 | 3.56 | 5.98 |

* $p < .01$ ** $p < .001$

- 1 = Leader-Member Exchange
- 2 = Supervisor Emotional Support
- 3 = Supervisor Informational Support
- 4 = Supervisor Instrumental Support
- 5 = Participation in Decision Making
- 6 = Role Ambiguity
- 7 = Role Conflict

[@] Correlations in the lower half of the matrix are uncorrected for attenuation; corrected correlations appear in the upper half.

Table 10: Correlations for Supervisory Subgroup@

| ITEMS | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | -- | .79 | .78 | .56 | .60 | -.08 | .16 |
| 2 | .71** | -- | .63 | .44 | .29 | -.12 | -.02 |
| 3 | .71** | .57** | -- | .83 | .34 | -.20 | .22 |
| 4 | .52** | .40* | .77** | -- | .45 | -.19 | .15 |
| 5 | .49** | .23 | .28 | .37* | -- | -.46 | -.04 |
| 6 | -.07 | -.10 | -.17 | -.16 | -.34 | -- | .48 |
| 7 | .14 | -.02 | .19 | .14 | -.03 | .38 | -- |
| Means | 17.75 | 24.58 | 25.36 | 25.06 | 11.64 | 15.50 | 24.22 |
| S.D | 3.43 | 3.46 | 6.69 | 6.14 | 1.62 | 3.40 | 4.85 |

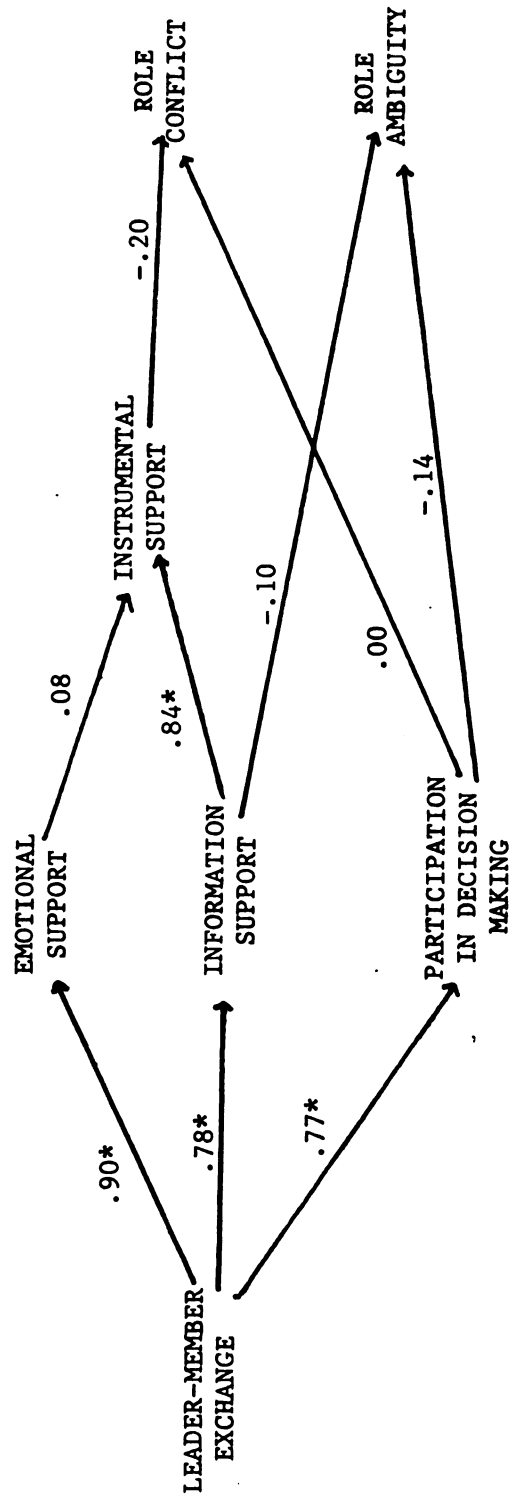
* p < .01

** p < .001

- 1 = Leader-Member Exchange
- 2 = Supervisor Emotional Support
- 3 = Supervisor Informational Support
- 4 = Supervisor Instrumental Support
- 5 = Participation in Decision Making
- 6 = Role Ambiguity
- 7 = Role Conflict

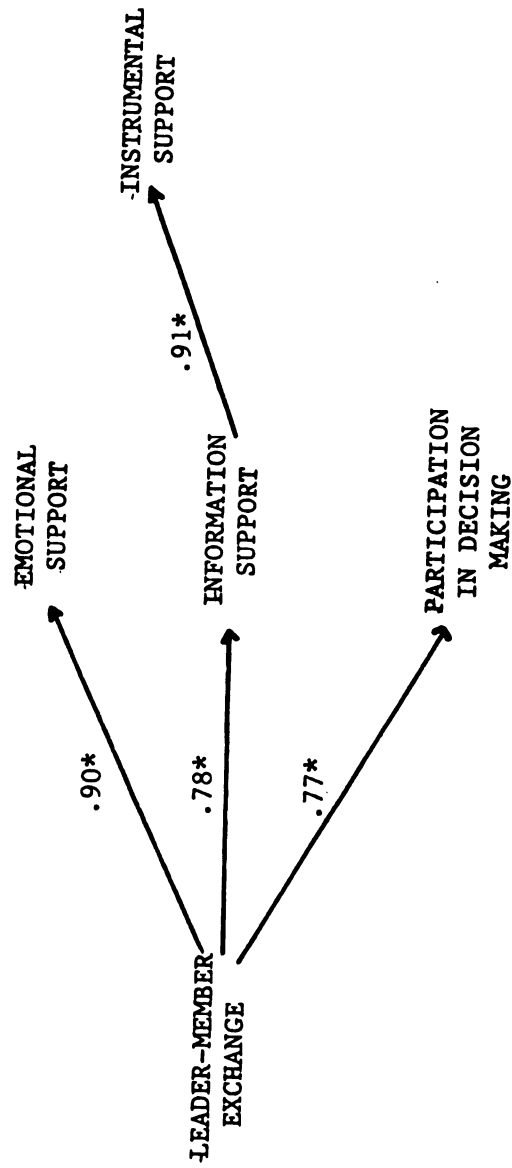
@ Correlations in the lower half of the matrix are uncorrected for attenuation; corrected correlations appear in the upper half.

Figure 7. General Model for Non-Supervisory Subgroup



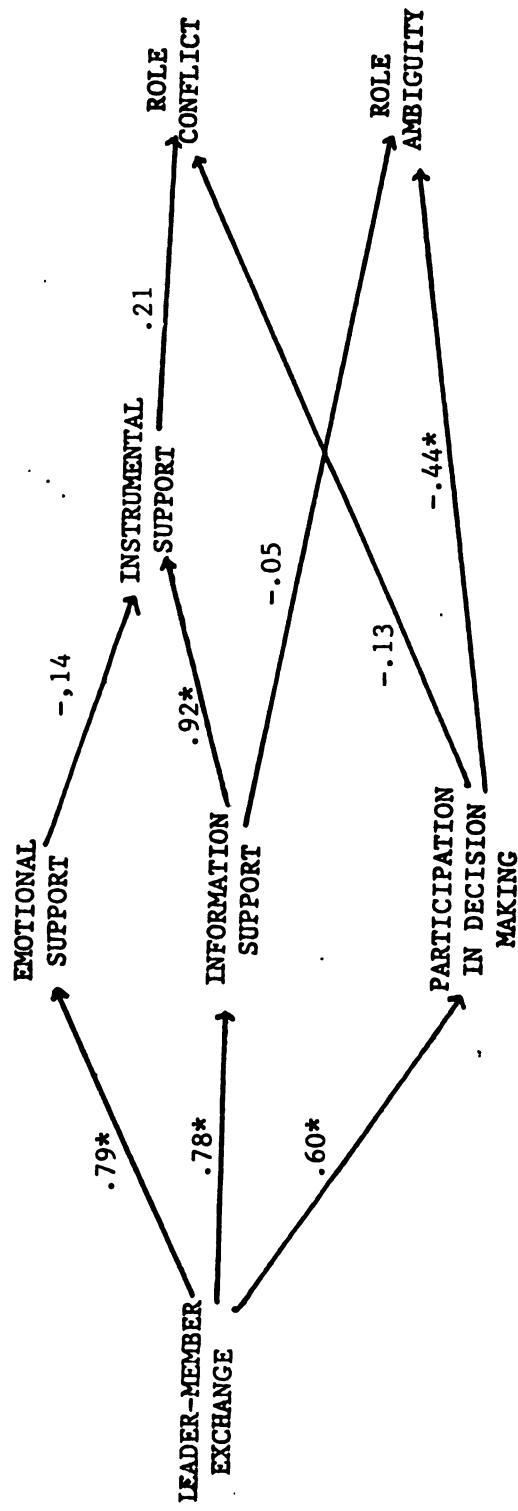
* significant at $p .05$

Figure 8. Revised Model for Non-Supervisory Subgroup



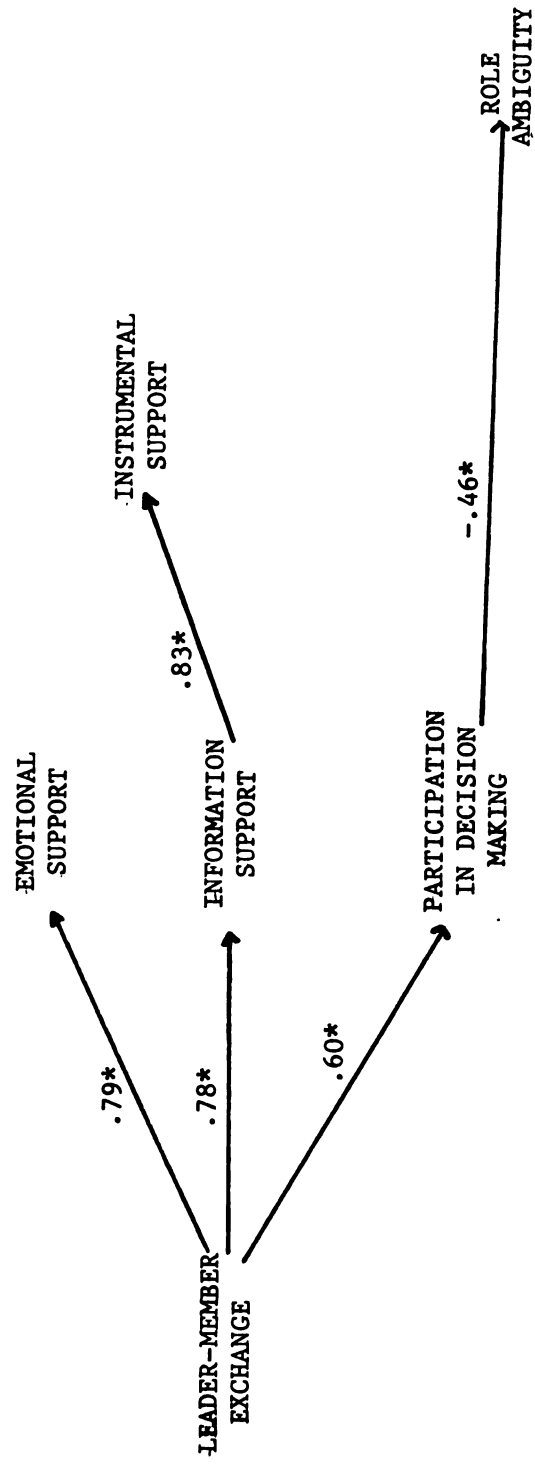
* significant at p .05

Figure 9. General Model for Supervisory Subgroup



* significant at $p = .05$

Figure 10. Revised Model for Supervisory Subgroup



* significant at p .05

Chapter IV: DISCUSSION

This chapter discusses the implications of the analyses presented in Chapter III. First, the results of confirmatory factor analyses on the original LMX scale and the standard scales are discussed. Second, the implications of the final path models for each subgroup are presented. Finally, limitations of this study and directions for future research are discussed.

Measurement Models

Several interesting results emerge from the confirmatory factor analyses of the scales used in this research. First, Graen, Novak and Sommerkamp's (1982) measure of the leader-member exchange concept was confirmed as a unidimensional factor rather than as a multidimensional construct. This finding has several implications. First, the confirmation of this model gives us increased confidence about the validity of past research on leader-member exchange and provides us with the possibility of reasonably comparing the current research to these previous efforts. Second, these data tend to refute conceptual arguments for a multidimensional LMX construct. Our analyses suggest that LMX should simply be viewed as the overall quality

of relationship in supervisor-subordinate dyads. Perhaps it is too difficult for most people to distinguish specific dimensions of their relationship with another. Coupled with halo effects, it may not be too surprising that multiple dimensions are not found. However, given the heuristic value of a multidimensional approach to LMX as well as the possibility of greater precision, further research along these lines is encouraged, with particular focus on scale construction.

Another finding of particular value concerning the measurement model is the empirical distinction between LMX and the various forms of social support. Thus, conceptualizing LMX as a general level of relational quality does not make it so broad as to incorporate communication elements. This distinction speaks to the potential value of a heavier communication focus for examining LMX influences in the work setting.

Path Models

The primary theoretical finding of this research is that leader-member exchange does have very strong effects on the communication variables of social support and participation in decision making. This was true for the sample as a whole as well as across all the subgroups. Thus, subordinates who have high

quality LMX report receiving greater amounts of social support and PDM. These findings are consistent with research results presented in Chapter I (Scandura, Graen, & Novak, 1986; Graen, Liden & Hoel, 1982; Graen, 1976)

Examination of the impact of these communication variables on role stress revealed an impact only on role ambiguity for the supervisory and low tenure subgroups. Consistent with the uncertainty reduction framework within which this research was situated, informational communication had the greatest impact on reducing role ambiguity. However, this information was acquired in different ways depending on the subgroup under investigation; low-tenure employees relied on supervisory informational support while supervisors relied on participation in decision making. The former finding corresponds somewhat with Fisher's (1985) findings that emotional and informational support from supervisors helped facilitate positive adjustment outcomes (e.g., satisfaction, performance, commitment) for newcomers. For the supervisory group, the finding that PDM impacted on role ambiguity is consistent with past research which emphasizes the importance of structure controls for the reduction of job-related strain (Jackson, 1983; Miller, et al., 1988).

The use of different information sources by these two groups may be understood in terms of the level of activity with which the focal person acquires information. As discussed in Chapter I, PDM can be construed as a process whereby employees may legitimately seek information necessary for role clarification, and potentially, be aggressive in this pursuit. In contrast to this active model, information support is typically passive. In the case of new employees, an inability to define appropriate information needs is part of the general ambiguity problem they face. Additionally, while supervisors may encourage new employees to ask plenty of questions, concerns for impression management and an unwillingness to approach the supervisor may limit the employees' active search for information.

The fact that no significant relationships were found between the communication variables and role conflict suggests that reduction of this stressor may rely more on the individual's adaptation capacity. As used in this research, both instrumental support and PDM were argued to be important as a means of prioritizing conflicting roles. Given unsupportive results, two explanations are possible. First, this hypothesized prioritizing may not actually take place.

Research focusing more directly on this is required for any definitive response. Secondly, even if such prioritizing takes place, it may not reduce the felt role conflict of the focal person. Further, prioritizing as a method of stress reduction assumes that all role senders could agree on a single hierarchical scheme, a highly unlikely assumption.

In general, it is not surprising to find that the greatest impact on role ambiguity appears to be tenure on the job. Role ambiguity differences between the tenure groups, while not fully significant, did result in differences in the final models. As already noted, no significant relations between any of the communication variables and role ambiguity are found for high-tenure employees. However, the relatively long job stay (two years) of the "low" tenure group in this study reveals that role ambiguity is important long into one's transition to a new job. Thus, the important relationships between LMX and the communication variables which limit role ambiguity could help to alleviate negative outcomes such as absenteeism and turnover.

Limitations and Directions for Future Research

This study had several limitations which provide suggestions for improving or extending this research.

This section will discuss these limitations and propose useful avenues for further exploration of the relationship between supervisor-subordinate relationships and role stress.

First, the self-report nature of the data, though important for considering perceptions of relationships, roles, and communication in the workplace, sets some limitations on the assessment of communicative behavior. Future research could usefully consider the mechanisms through which actual interaction or participation in communication networks influences the role definition process in organizations.

A second drawback with the use of self-report data concerns the reliance on only one portion of the supervisor-subordinate dyad for purposes of defining the relational quality. This presents an obvious limitation in the form of missing data from each employee's supervisor. Without descriptions of the relationship by these supervisors, the possibility of bias on the part of subordinates is more likely.

A third limitation is the relatively low levels of role ambiguity and, especially, role conflict reported by respondents in this study. It is possible that occupations characterized by higher levels of situational and interpersonal stress would reveal

different relationships among these constructs. Future research should replicate these findings in a wide range of organizational and occupational settings.

A final suggestion for future study concerns the findings of previous LMX research. These past studies have revealed a number of organizational outcome variables associated with LMX quality: turnover (Graen, Orris, and Johnson, 1973), job satisfaction (Graen, 1976; Dansereau, et al., 1975), and potentially performance (see review in Dienesch & Liden, 1986). It may very well be that these findings are mediated by the communication differences recorded in the present study. For instance, differences in information about job requirements and methods might result in differences in productivity. Further, communication can be seen as an important variable in influencing a person's perceptions about his or her job, thereby influencing job satisfaction. Reexamination of these findings from a communication perspective could do much to improve our understanding of the manner in which LMX affects such organizational outcomes.

Summary

This research investigated the mediating nature of communication as a way of understanding the impact of LMX on role conflict and ambiguity. The results of

this study present a number of both theoretical and practical applications.

Theoretically, this study greatly extends the current state of knowledge concerning the conceptualization and operationalization of the LMX construct. The suggestion that LMX might be multidimensional was expanded and explored here without positive results. Thus, a unidimensional approach to LMX receives support. This is given further support by the validation of an original LMX scale. The scale assessed was prototypical of those used in past LMX research and its validation allows greater faith in these research findings.

This research also succeeds to some extent in showing LMX effects as being mediated by communication variables. The connection between LMX and communication is strong and unequivocal. While this study was able to show further effects only for role ambiguity, these relations were quite strong. This provides support for a communication explanation of LMX results in the workplace.

For the practitioner, these results suggest the importance of managerial awareness of the relational quality associated with their various subordinates. While it is unlikely that a manager can produce high

quality relationships with all subordinates, it is important to avoid blatant favoritism that might stir up resentment in the work unit. Though past research reveals that low LMX members can identify coworkers with high LMX relationships with the supervisor, (Graen, Liden & Hoel, 1982) it has not been shown whether this causes great resentment. However, this may be due to the fact that such low LMX members leave the organization (Graen, Orris, & Johnson, 1973). Further research on the extent to which variability in LMX relationships affects the stability of overall work group relations would be useful in this regard.

In relation to role ambiguity, managers should be particularly attuned to the information needs of low-tenure employees. Managers may need to take a much more active role in feeding information to new employees for purposes of orienting them to both their new role and the organizational environment in which they will operate. This means doing more than sending the employee to a general orientation meeting in which formal organizational policies are presented. The employee also needs information about the informal organizational rules, specifically within his or her workgroup. As time goes on, employees may gain enough understanding to know what information is needed and

where to get it; until then, information needs to be routed their way in a conscious manner.

The finding that employees in supervisory positions reported greater levels of both role conflict and role ambiguity is also important information for managers. This occurrence may be linked to the greater responsibilities for others built into supervisory positions. Whatever the cause, the main lesson here is the need for such employees to have an active role in defining role expectations. This is afforded through participation in the decision making process which allows them seek new and updated information about their responsibilities as the work environment changes, thereby alleviating role ambiguity. For example, if a new efficiency study is being considered, its exact requirements in terms of resources will typically be made explicit. If supervisors are involved in the planning process, they are afforded the opportunity to gain information about how this study will affect their role expectations.

The problem here is why role conflict is not also aided by such participation. Presumably, if supervisors are able to seek information about role requirements and changes, they should be able to perceive conflicting demands and raise concerns for

discussion. As noted above, role conflict may not be amenable to reduction by communication. Katz and Kahn (1966) have noted that role conflict is an inherent quality of life; the goal is not so much to alleviate role conflict as to keep it down to manageable levels. In short, the fact that supervisors must coordinate a variety of human actors, each having their personal role expectations, places them in a position where conflicts will accrue, whether between two subordinates, or between upper management and his or her work group. Therefore, managers should be attuned to the level of role conflict being experienced by supervisors, and intervene when role conflict begins to overwhelm. Greater investigation needs to focus on how much role conflict is too much, however, for this advice to be useful.

LIST OF REFERENCES

LIST OF REFERENCES

- Albrecht, T.L. & Adelman, M.B. (1987). Communicating social support. Beverly Hills: Sage.
- Adelman, M.B., Parks, M.R. & Albrecht, T.L. (1987). Supporting friends in need. In T.L. Albrecht and M.B. Adelman (Eds.), Communicating social support (pp. 105-125). Beverly Hills: Sage.
- Baird, L.L. (1969). A study of the role relations of graduate students. Journal of Educational Psychology, 60, 15-21.
- Blake, R.R. & Mouton, J.S. (1964). The managerial grid. Houston: Gulf Publishing Co.
- Campbell, J.P., Dunnette, M.D., Lawler, E.E., & Weick, K.E. (1970). Managerial behavior, performance, and effectiveness. New York: McGraw Hill.
- Chesler, M. A. & Barbarin, O. A. (1984). Difficulties of providing help in a crisis: Relationships between parents of children with cancer and their friends. Journal of Social Issues, 40 (4), 113-134.
- Dansereau, F., Jr., Graen, G. & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations--a longitudinal investigation of the role making process. Organizational Behavior and Human Performance, 13, 46-78.
- Dienesch, R.M. & Liden R.C. (1986). Leader-member exchange model of leadership: A critique and further development. Academy of Management Review, 11, 618-634.
- Duchon, Green & Taber (1986). Vertical dyad linkage: A longitudinal assessment of antecedents, measures, and consequences. Journal of Applied Psychology, 71 (1), 56-60.
- Fiske, S.T. & Taylor, S.E. (1984). Social cognition. Reading, MA: Addison-Wesley.
- Fisher, C. D. (1985). Social support and adjustment to work: A longitudinal study. Journal of Management, 11(3), 39-53.

- Ganster, D.C., Fusiler, M.R., & Mayes, B.T. (1986). Role of social support in the experience of stress at work. Journal of Applied Psychology, 71, 102-110.
- Goode (1959). A theory of role strain. American Sociological Review, 25, 483-496.
- Graen, G. (1976). Role-making processes within complex organizations. In M.D. Dunnette (Ed.), Handbook of industrial and organizational psychology (pp. 1201-1245). Chicago: Rand McNally.
- Graen, G., Dansereau, F., & Minami, T. (1972). Dysfunctional leadership styles. Organizational Behavior and Human Performance, 7, 216-236.
- Graen, G., Liden, R., & Hoel, W. (1982). Role of leadership in the employee withdrawal process. Journal of Applied Psychology, 67, 868-872.
- Graen, G., Novak, M. & Sommerkamp, P. (1982). The effects of leader-member exchange and job design on productivity and satisfaction: Testing a dual attachment model. Organizational Behavior and Human Performance, 30, 109-131.
- House, J.S. & Cottingham, E.M. (1986). Health and the workplace. In L.H. Aiken & D. Mechanic (Eds.), Application of social science to clinical medicine and health policy (pp.392-415). New Brunswick: Rutgers University Press.
- Hunter, J.E. (1980). Factor analysis. In P.R. Monge and J.N. Cappella (Eds.), Multivariate techniques in human communication research (pp. 229-258). New York: Academic Press.
- Hunter, J.E. & Gerbing, D.W. (1982). Unidimensional measurement, second order factor analysis, and causal models. Research in Organizational Behavior, 4, 267-320.
- Hunter, J.E. & Lim, T.S. (1987). LIMSTAT. Unpublished manuscript, Department of Communication, Michigan State University, E. Lansing, MI.

- Jackson, S.E. (1983). Participation in decision making as a strategy for reducing job-related strain. Journal of Applied Psychology, 68 (1), 3-19.
- Jacobson, D.E. (1986). Types and timing of support. Journal of Health and Social Behavior, 27, 250-264.
- James, W. (1892). Psychology. New York: Henry Holt.
- Jayaratne, S. & Chess, W.A. (1984). The effects of emotional support on perceived job stress and strain. The Journal of Applied Behavioral Science, 20 (2), 141-153.
- Johnson, T. W. & Graen, G. (1973) Organizational assimilation and role rejection. Organizational Behavior and Human Performance, 10, 72-87.
- Kahn, R.L., Wolfe, D.M., Quinn, R.P., Snoek, J.D. & Rosenthal, R.A. (1964). Organizational stress. New York: Wiley.
- Katz, D. & Kahn, R.L. (1966). The social psychology of organizations. New York: Wiley.
- LaRocco, J.M., House, J.S., & French, J.R.P., Jr., (1980). Social support, occupational stress and health. Journal of Health and Social Behavior, 21, 202-218.
- Liden, R. C. & Graen, G. (1980). Generalizability of the vertical dyadic linkage model of leadership. Academy of Management Journal, 3, 451-465.
- Linton, R. (1936). The study of man. New York: Appleton-Century-Crofts, Inc.
- Merton, R. K. (1957). The role-set: Problems in sociological theory. The British Journal of Sociology, 8, 106-120.
- Miller, K.I. & Monge, P.R. (1985). Social information and employee anxiety about organizational change. Human Communication Research, 11, 365-386.

- Miller, K.I., Ellis, B.H., Zook, E.G. & Lyles, J. (1988). An integrated model of stress, burnout and communication in the workplace. Michigan State University, East Lansing, MI. (In review).
- Neiman, L. J., & Hughes, J. W. (1951). The problems of the concept of role--a re-survey of the literature. Social Forces, 30, 141-149.
- Norusis, M. J. (1986). SPSS-PC+. Chicago: SPSS, Inc.
- Parsons, T. (1965). Structure and process in modern societies. New York: The Free Press.
- Parsons, T. (1951). The social system. Glencoe, Ill: The Free Press.
- Ray, E.B. (1987). Supportive relationships and occupational stress in the workplace. In T.L. Albrecht and M.B. Adelman (Eds.), Communicating social support (pp. 172-191). Beverly Hills: Sage.
- Rizzo, J.R., House, R.J., & Lirtzman, S.I. (1970). Role conflict and ambiguity in complex organizations. Administrative Science Quarterly, 15, 150-163.
- Scandura, T. A., Graen, G. B., & Novak, M. A. (1986). When managers decide not to decide autocratically: An investigation of Leader-Member Exchange and decision influence. Journal of Applied Psychology, 71(4), 579-584.
- Schriesheim, C.A. & Murphy, C.J. (1976). Relationships between leader behavior and subordinate satisfaction and performance: A test of some situational moderators. Journal of Applied Psychology, 61, 634-641.
- Schuler, R.S. (1980). Definition and conceptualization of stress in organizations. Organizational Behavior and Human Performance, 25, 184-215.
- Schuler, R.S., Aldag, R.J., & Brief, A.P. (1977). Role conflict and ambiguity: A scale analysis. Organizational Behavior and Human Performance, 20, 119-128.

- Schuler, R.S. & Jackson, S.E. (1986). Managing stress through PHRM practices: An uncertainty interpretation. Academy of Management Journal, 23, 331-340.
- Seers, A., McGee, G.W., Serey, T.T., & Graen, G. (1983). The interaction of job stress and social support: A strong inference investigation. Academy of Management Journal, 26 (2), 273-284.
- Sutton, R.I. & Kahn, R.L. (1987). Prediction, understanding, and control as antidotes to organizational stress. In J.W. Lorsch (Ed.), Handbook of organizational behavior (pp.272-285). Englewood Cliffs, NJ: Prentice Hall.
- Van Sell, M., Brief, A.P., & Schuler, R.S. (1981). Role conflict and role ambiguity: Integration of the literature and directions for future research. Human Relations, 34 (1), 43-71.
- Vroom, V. (1960). Some personality determinants of the effects of participation. Englewood Cliffs, NJ: Prentice Hall.
- Wortman, C. (1984). Social support and the cancer patient: Conceptual and methodological issues. Cancer, 53, 2339-2360.
- Wortman, C. & Dunkel-Schetter, C. (1979). Interpersonal relationships and cancer: A theoretical analysis. Journal of Social Issues, 35(1), 120-125.