Leader-Member Exchange Quality: The Relationship of Similarity, Competence, and Selected Personality Variables.

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Leader-member exchange quality: The relationship of similarity, competence, and selected personality variables

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LEADER-MEMBER EXCHANGE QUALITY:
THE RELATIONSHIP OF SIMILARITY, COMPETENCE,
AND SELECTED PERSONALITY VARIABLES

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The Interdepartmental Program in Business Administration

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ABSTRACT

The Leader-Member Exchange (LMX) model (e.g., Cashman, Dansereau, Graen, & Haga, 1976; Dansereau, Cashman, & Graen, 1973) contends that leaders react differently with individual followers, rather than treating them homogeneously. Specifically, it assumes that leader behavior depends on relationships with individual work unit members. It further contends that followers vary in their perceptions of and reactions to leader behaviors. Followers, based on their interpersonal relationships (exchanges) with a leader, tend to form two qualitatively different groups, an in-group (higher quality) and an out-group (lower quality). Previous research has documented that insiders and outsiders may experience very different work outcomes. Factors associated with in-group/out-group status, however, are still unknown. This study explored selected variables hypothesized to be associated with leader-member exchange quality and, thus, group status. Based on a review of the interpersonal dynamics literature, the relationship between the following variables and quality of leader-member exchanges were examined:

(a) leader-follower similarity, (b) follower competence, (c) introversion/extraversion, (d) locus of control, and (e) growth need strength. Subjects (84 registered nurses and their managers) completed questionnaires. Similarity, competence, and introversion/ extraversion were
significantly correlated with follower LMX level. Regression analyses indicated that only similarity and introversion/extraversion were related to group status. Similarity mediated the relationship between competence and group status. Implications of these findings are discussed and recommendations for future research presented.
INTRODUCTION

Leadership is a topic that has intrigued and challenged researchers for centuries. Innumerable leadership theories drawing on intuitive speculation, as well as more rigorous empirical studies, have been advanced. To date, however, the so-called "leadership puzzle" remains unsolved. Prominent contemporary leadership theories are marked as much by their originality as their communality. A vast majority of these theories, especially those which are behaviorally based, can be classified according to their assumptions about leaders' actions and followers' corresponding reactions (Graen & Cashman, 1975).

This study focused on a relatively recent approach to leadership, the so-called Vertical Dyad Linkage (VDL) model (Cashman, Dansereau, Graen, & Haga, 1976; Dansereau, Cashman, & Graen, 1973), or what has more recently been labeled the Leader-Member Exchange (LMX) model (Graen, Novak, & Sommerkamp, 1982). As discussed below, this model contends that leaders develop qualitatively different relationships with their followers. As a result, two follower sub-groups (an in-group and an out-group) emerge. The present study attempted to address a notable developmental shortcoming in the LMX model. More specifically, the purpose of the reported research was to investigate factors associated with a follower's sub-group classification.
Two issues require clarification at this point. First, for the purposes of this study, a social unit will be defined as a work group (e.g., a department) consisting of a formally-designated superior, referred to as a leader, and two or more subordinates, referred to as followers or members. Second, use of the term "leader" is not meant to imply that all formally-designated superiors possess leadership qualities. Rather, it is used to be consistent with most leadership research, which typically assesses leader style and follower outcomes assuming that formally-designated superiors are leaders.

Before examining the LMX model in detail, the basic assumptions of various behavioral leadership models will be reviewed to clarify their differences.

Behavioral Leadership Models: Basic Assumptions

Graen and Cashman (1975) present a comparative classification of behavioral leadership models in terms of leaders' actions toward followers and subsequent follower reactions. In brief, they classify traditional leadership models as representing either an "average leadership style" or a "mixed approach".

Average Leadership Style (ALS) Models

The Ohio State leadership studies (e.g., Fleishman, 1953) present a prominent example of an ALS model. ALS models assume leader behaviors vary over relatively few dimensions (typically two), such as consideration and
initiating structure (Graen & Cashman, 1975). Leader behaviors are assumed to be stylistic and thus similarly applied to all followers. A parallel assumption is that all followers respond in approximately the same way to a particular leader. In describing leader behaviors and follower responses, ALS models take individual social units as their level of analysis. Accordingly, they assess leader behaviors by averaging followers' responses to an instrument such as the Leader Behavior Description Questionnaire (LBDQ; Hemphill & Coons, 1957). The LBDQ asks followers to assess leader behaviors on dimensions such as problem solving and communicating expectations. Similarly, focal outcomes consist of dependent variables such as average follower satisfaction and overall work group performance.

"Mixed Approach" Models

Path-goal theory (House, 1971; House & Mitchell, 1974) is exemplary of what Graen and Cashman (1975) term a "mixed approach". It assumes leader behaviors are homogeneous across work group members, but rejects the assumption that members react homogeneously. For example, leader behavior may be described as instrumental or supportive toward followers as a group. But the theory treats followers' individual reactions to leader behavior as a key element. Accordingly, leader-follower data are interpreted at the individual level of analysis.
Leader-Member Exchange (LMX) Model

Graen and his associates (e.g., Cashman et al., 1976; Dansereau et al., 1973) have been the principal developers of the Leader-Member Exchange model. In contrast to both the ALS and mixed models, the LMX model assumes heterogeneous leader and work group member behaviors. More specifically, it assumes that (a) leader behavior depends on relationships with individual work unit members, and will be more homogeneous toward particular members than toward members in general; and (b) work group member perceptions, reactions, and interpretations of leader behaviors will similarly vary (Dansereau et al., 1973). The LMX model's focal unit of analysis is thus the dyadic relationship between a leader and individual work group members.

LMX model proponents contend that the nature of leader-member exchanges can be characterized by the inherent interpersonal relationship on which they are based (Graen, 1976). They likewise argue that it is the quality of this relationship that places followers into either in-group or out-group status vis-à-vis a leader. Further, LMX model proponents hold that group status (in-group/out-group) influences a variety of follower experiences.

Research Question

Although the existence of qualitatively different leader-member relationships has been supported (e.g.,
Dansereau, Graen, & Haga, 1975), there has been no clear explication of what factors are associated with in-group or out-group status (Dienesch & Liden, 1986; House & Baetz, 1979; Yukl, 1989). In-group/out-group distinctions tend to develop quickly and remain stable over time (Graen & Cashman, 1975; Liden & Graen, 1980). Thus, it seems possible that certain factors, evident essentially from initial leader-member interactions, are associated with the subsequent status of work group members. The purpose of this research was to investigate various factors which may be reasonably believed to be associated with a follower's classification as either an "insider" or "outsider."

Factors selected for investigation were identified through a review of the interpersonal dynamics literature.

Importance of the Study

This study addressed a question yet unanswered in the LMX literature. That is, what factors are associated with member in-group or out-group status? In addressing this question, this study represents an exploratory step in examining selected factors which may affect subsequent leader-member exchanges.

The importance of the current study lies in the potential it offers for improving the quality of leader-member relationships. Based on the study's results, it may be possible to design programs for training leaders to counteract such negative out-group results as job
dissatisfaction and dysfunctional employee turnover. Further, if factors determining insider/outsider status are identifiable, it may be possible to sensitize work group members to actions typically associated with insider/outsider behavior. This could be important to group-member career progression, as well as work-group output.

Order of Presentation
In subsequent sections, the leader-member exchange model and its associated literature will be reviewed. The so-called role-making process, which is thought to affect how followers eventually behave in work groups, will be discussed. Selected relevant research on this process will be considered. The basic importance of identifying factors associated with in-group or out-group status will be reiterated and various research hypotheses advanced. A methodology section will identify the study's subjects, outline research procedures, and describe measures and statistical analyses employed. Results will be presented and discussed, followed by recommendations for future research.

REVIEW OF LITERATURE
The Leader-Member Exchange Model
The LMX model has been offered by Dansereau et al. (1973) as an alternative to traditional leadership approaches. For years, leadership research has largely concentrated on dimensions of leader behavior such as
consideration and initiating structure (Fleishman, 1953),
relationship-orientation or task-orientation (Fiedler,
1967), and concern for production or concern for people
(Blake & Mouton, 1982). Dansereau et al. argue that these
traditional approaches are based on the idea of an Average
Leadership Style (ALS; Dansereau et al., 1973), and are
incapable of providing insights into situations resulting
from a mixture of heterogeneous work group members. They
further contend that models utilizing an average leadership
approach are founded on two unproven assumptions. First,
these models assume that leader behavior toward work group
members is consistent across time and followers. That is,
they assume that over time a leader generally acts the same
toward all followers. Thus, in effect, they treat any
variance from this average style as randomly distributed
over both time and work group members (Dansereau et al.,
1973, p. 185). Hence, they assume that a leader's
behaviors toward individual followers are independent of
their inherent dyadic relationship. Second, ALS models
assume that followers are fairly homogeneous in their
perceptions, interpretations, and reactions to leader
behaviors. Again, any variance is assumed to be randomly
distributed.

In contrast to ALS models, mixed approaches such as
Path-Goal Theory (e.g., House, 1971; House & Mitchell,
1974) reject the assumption that work group members react
homogeneously to leader behaviors over time. However, they likewise assume that leader behaviors are homogeneous across members. The failure of both ALS and mixed approaches to incorporate potential systematic differences in the quality of leader-member relationships may well account for the inconsistency of much leadership research (Dansereau et al., 1975).

A critical difference between LMX and traditional leadership models is level of analysis. ALS models examine individual work groups as units, focusing on the relationship between leaders and members as a group; mixed approaches focus on individual work group members. In counterpoint to both the ALS and mixed approaches, the LMX model examines leader-member dyads (Dansereau et al., 1973). Such dyads are vertical since, by definition, they include members from two hierarchical levels. Moreover, they reflect processes directly linking leaders and followers (Dansereau et al. 1975). Thus, leader-member exchanges can be viewed from a purely dyadic perspective, i.e., "a superior and focal subordinate interact on a one-to-one basis independently of either person's relationship with others outside of that dyad" (Nachman, Dansereau, & Naughton, 1985, p. 661). So rather than dismissing (as randomly distributed error variance) deviation around an average leadership style, the LMX model assumes individual followers' observations contain valid variance to be
investigated, allowing for "the possibility that certain members may be more functionally interdependent with a leader than other members" (Dansereau et al., 1973, p. 188). Hence, within a single unit, the nature of leader-member relationships can vary widely in quality. While the LMX model recognizes the possibility of such differences, it also accommodates situations in which the quality of leader-member relationships is homogeneous across group members. The key point here, however, is that only by examining individual dyadic relationships can the actual distribution of vertical relationships within a work group be established (Dansereau et al., 1975).

The LMX model refers to possible range of qualitatively different relationships existing between a leader and various individual work-group members. However, LMX researchers have consistently classified leader-member relationships (exchanges) as either in-group (higher quality) or out-group (lower quality). This dichotomization has typically been based on follower responses to the Leader-Member Exchange Scale (Graen, Novak, & Sommerkamp, 1982). The LMX scale is designed to assess negotiating latitude (i.e., the extent to which a leader is willing to allow members to influence their work group roles). Leaders have been shown to be more willing to negotiate job assignments and decision-making involvement with insiders (high negotiating latitude) than
outsiders (low negotiating latitude). An early longitudinal study (Dansereau et al., 1975) tested the appropriateness of segmenting samples in this fashion. Measures of negotiating latitude were taken at four points in time (over nine months), with initial insider/outsider status treated as the independent variable and subsequent measures of negotiating latitude considered dependent variables in a repeated-measures ANOVA. Analyses revealed that relative negotiating latitude remained stable; that is, members initially scoring higher remained higher throughout the study, thus suggesting that insider/outsider status is a stable construct.

In analyzing interactions between leaders and individual in-/out-group members, Graen and his associates (e.g., Dansereau et al., 1975) have used Jacobs's (1971) distinction between leadership and supervision as situationally determined behaviors (p. 288). Jacobs notes that managers can sometimes influence followers without recourse to authority. This is what he terms "leadership". Other instances, however, require use of authority, which Jacobs calls "supervision". In Jacobs's view, a manager's latitude to choose one or the other behavior contributes to work group efficiency, since their appropriateness is situationally determined (p. 288). Graen and Cashman (1975) use this leadership/supervision distinction to describe some of the differences between in-group and
out-group exchanges by noting that leader behavior toward a follower may be based on leadership (influence without formal authority) or on supervision (influence based solely on formal authority; Dansereau et al., 1975, p. 48).

Kim and Organ (1982) discuss a similar difference along a dimension they call noncontractual social exchange (NSE). They describe NSE as a continuum representing leader-member exchanges ranging from purely formal to open-ended. This dimension closely mirrors Katz and Kahn's (1978) description of differentially exerted influence:

Thus we would not speak of a leader in a group of people all of whom were equally effective or ineffective in influencing one another in all areas of the group's functioning. Even where one individual has more effect upon his fellows than another, we do not ordinarily speak of his leadership if the effect derives almost entirely from his position in the social structure rather than from his special utilization of that position. (p. 527)

Since both concepts (i.e., leadership vs. supervision and NSE) are basically synonymous, no distinction will be made here.

Leadership, then (as presented by the LMX model), occurs only within a dyad (between leader and follower), not between a leader and all followers as a group (Dansereau et al., 1975). Furthermore, in exchanges with outsiders, leaders act as supervisors, relying on formal authority derived from a legal employment contract to extract subordinate performance. Indeed, at the extreme, such supervisor-subordinate relationships can be very
mechanistic, involving minimal social exchange and minimal negotiation (Dansereau et al., 1975). Behaviors are largely institutionalized, arising from workplace rules, policies, and procedures, rather than emerging from spontaneous interaction. Stated more simply, manager exchanges with outsiders derive from a contractual quid pro quo (Kim & Organ, 1982). Such exchanges are typically characterized by low levels of trust, interaction, support, and leader-provided rewards (Dienesch & Liden, 1986). Exchanges require little interdependence; indeed, a manager can hold social interactions to a minimum, since an employing organization (not the manager) agrees to compensate the outsiders for services rendered (Dansereau et al., 1975).

In direct contrast, in their interactions with insiders, managers act as leaders, relying on interpersonal means of influence, without resorting to formal authority. Although managers obviously have formal authority with respect to all group members, influence without authority is the basis for their interactions with insiders. This influence offers managers (as leaders) and subordinates (as followers) "highly valued outcomes" unavailable under authority-based supervision (Dansereau et al., 1975, p. 49). These outcomes are especially evident as they move beyond prescribed behaviors and voluntarily benefit each other reciprocally. Leader interactions with insiders
resemble social transactions, with leaders and followers exchanging special resources and enjoying higher levels of trust and loyalty (Zalesny & Graen, 1987). For example, in return for leader-provided rewards such as job latitude, confidence, and influence in decision making, followers may expend greater than required time and energy, assume more responsibility, and so on (Dansereau et al., 1975). Leader and follower become reciprocally interdependent. These exchanges are characterized by high levels of trust and support (Dienesch & Liden, 1986).

An early study that specifically examined in-/out-group status revealed that qualitatively different relationships existed in most work groups (Dansereau et al., 1975). Sixty university housing managers and their superiors, forming 17 work groups, were studied over a nine-month period. Essentially all 60 dyads were new (having at least one member in a new position) because of a substantial reorganization. Fourteen (85%) of the work groups contained both insiders and outsiders, with only three (15%) having all members either in or out. Moreover, these relationships persisted over the nine months studied.

Subsequent research (discussed below) has examined interactions between leaders and followers as they establish either in- or out-group relationships. Graen and his associates (e.g., Graen, 1976; Graen & Scandura, 1987) postulate that these interactions affect how followers, as
they move from "newcomer" to "established incumbent," eventually behave in their work group roles. In this context, Graen (1976) refers to the process underlying leader-follower exchanges as role making.

**Role Making**

Generally speaking, work group members can be viewed as accomplishing their duties through roles, or sets of expected behaviors (Graen, 1976). In an LMX context, these expected behaviors are defined through a leader-follower exchange process referred to as "role making". As such, role making is a developmental process by which a leader and a follower agree on how each will behave in certain situations (Graen & Cashman, 1975). More formally defined, "role making is a set of processes by which a range of collaborative systems emerges based on dyadic transactions involving interdependent sets of inducements and contributions" (Graen & Scandura, 1987, p. 179). Graen and Scandura (1987) note that the concepts of inducements and contributions, and, indeed, an early emphasis on dyads can be found in Barnard (1938).

The functional interdependence that develops between a leader and follower serves to clarify initially ambiguous, incompletely defined dyadic expectations (Graen & Cashman, 1975; Graen, Orris, & Johnson, 1973). The most comprehensive presentation of this development is found in
Graen and Scandura (1987), and will be used as the basis for the following discussion.

The general role-making process described in detail by Graen and his colleagues is based on work by Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964). It involves three identifiable, normally sequential phases that occur between a leader and follower. Beginning with their initial interaction, a leader and follower progress through (a) role taking, (b) role development, and (c) role routinization.

In **role taking**, a leader iteratively samples follower behavior on relevant dimensions by using different assignments. This allows a leader to learn about a follower's work habits, strengths, weaknesses, and so on. In this phase, leaders are active initiators while followers play a more passive role. Role taking, then, introduces followers to structured task procedures, provides leaders with important information about followers' potential performance, and represents an exchange based on economic (contractual) transactions (Graen & Scandura, 1987).

In **role development**, the nature of a leader and follower's relationship evolves as they begin to define how each will behave in various situations. By cooperating on unstructured tasks, they test various dyadic interdependencies so that sets of mutually reinforcing
interlocked behavior cycles emerge (Graen & Scandura, 1987, p. 181). While either party may initiate an interaction, the leader typically is still the initiator. Leader-follower exchanges thereby evolve to a new level where collaboration on unstructured tasks is provided by a follower in return for positional and personal resources from a leader. Because timing is often crucial in unstructured tasks, such resources must ideally be within a leader's personal discretion to give or withhold immediately without having to obtain approval from a higher authority. Graen and Scandura (1987) contend that discovering and using these resources often separates highly effective from ineffective leaders. Positional and personal resources include information, influence, tasks, latitude, support, and attention (Graen & Cashman, 1975; Graen & Scandura, 1987).

Over a period of time, role routinization occurs. Both parties' (leaders' and followers') behaviors are tempered by experience. Effective behaviors are strengthened and less effective ones weakened as mutual expectations are crystallized. During this phase, either party may initiate an interaction. With role routinization, leader-follower relationships become institutionalized, and are reflected in formal events (e.g., promotions) or documents (e.g., job descriptions).
The Dansereau et al. (1975) study cited earlier investigated role making within leader-follower dyads. As the 60 dyads progressed through the role-making process, certain behavioral and outcome differences emerged. For example, relative to outsiders, insiders had consistently greater latitude in developing their roles, more inside information, more influence in decision making, and received more support for their actions and more consideration for their feelings from their leaders. Moreover, leaders reported that insiders consistently acted according to leader expectations, while outsiders' actions progressively deviated from leader expectations. Also, relative to outsiders, insiders spent more time communicating and performing administrative duties. Thus, it appears that in high-quality dyads, followers exchanged greater responsibility for more leader-provided resources.

Schiemann (cited in Graen & Scandura, 1986) has investigated other outcomes of the role-making process. In an initial study, he found that insiders communicated more frequently with their leaders about administrative and technical matters. In a second study, Graen and Schiemann (1978) found that insiders were more likely than outsiders to agree with their leaders about aspects of their job situations, especially as regards severity of members' job problems. Graen and Schiemann (1978) interpreted the finding that leader-follower agreement varied with exchange
quality as a natural outcome of dyadic functioning. That is, because of more task-relevant interactions, leaders naturally acquire more information about insiders relative to outsiders. Thus, in high-quality dyadic relationships, leaders should be more aware of followers' job problems, and leader-follower perceptions should be more alike.

A growing body of research supports the predictive validity of the LMX model for certain work-related outcomes, including job satisfaction (Graen & Cashman, 1975; Graen, Novak, & Sommerkamp, 1982; Liden & Graen, 1980) and degree of leader-member agreement on job issues (Graen & Schiemann, 1978). However, conflicting findings have plagued research dealing with other variables. For example, while three studies have found in-group status to be negatively related to turnover (Ferris, 1985; Graen & Ginsburg, 1977; Graen, Liden, & Hoel, 1982), Vecchio and his associates (Vecchio, 1985; Vecchio, Griffeth, & Hom, 1986) found no relationship. Research examining performance as an outcome variable has likewise been equivocal. Although group status has been predictive of "soft" measures of performance like supervisory ratings (Vecchio & Gobdel, 1984), research using "hard" (objective) performance indices has failed to find such a relationship (Vecchio, 1982; Vecchio & Gobdel, 1984). Such conflicting results suggest a continuing need for research to further probe these issues, possibly tapping related but
yet-unexplored constructs (Vecchio, 1982; Vecchio & Gobbel, 1984). Moreover, despite a growing stream of research on the LMX model, factors affecting which followers will become insiders and which will be outsiders remain to be identified.

Proposed Variables Associated With In-Group/Out-Group Status

This study examined the impact of several factors thought to potentially be associated with the quality of leader-member exchanges. These factors were identified based on reviews of the interpersonal dynamics literature and LMX model discussions of typical in-/out-group member behaviors. The proposed factors are: (a) leader-follower similarity, (b) follower competence, (c) introversion/extraversion, (d) locus of control, and (e) growth need strength. The following sections evaluate the potential relationship of these factors with quality of leader-member exchanges and offer associated research hypotheses.

Leader-Follower Similarity

The effect of perceived similarity on interpersonal attraction is well established (see Byrne, 1971, for a review). Research manipulating perceived similarity between individuals has demonstrated that a so-called "similar-to-me effect" accounts for a significant percentage of explained variance in decision-making
situations such as hiring (Baskett, 1973) and loaning money (Golightly, Huffman, & Byrne, 1971).

At least three field studies have shown a relationship between similarity and performance-appraisal ratings. Perceived similarity between rater and ratee has been found to correlate significantly with performance evaluations (Pulakos & Wexley, 1983; Wexley, Alexander, Greenawalt, & Couch, 1980). Wexley et al. (1980) discussed the importance of leaders being aware of followers' job attitudes, since this awareness allows leaders to better understand followers' actions. This discussion is quite similar to that of Graen and Schiemann (1978) who found higher agreement on severity of members' job problems between insiders and their leaders relative to out-group dyads. Finally, a recent study (Zalesny & Kirsch, 1989) indicates that leader-follower educational similarity is significantly related to leader ratings of follower performance.

The LMX model suggests that compatibility of leader and follower characteristics is an important influence on the dyadic exchange process (Graen & Cashman, 1975). To date, however, only one study has investigated the relationship between similarity and subgroup differentiation. Using a student sample of Junior Achievement participants, Duchon, Green, and Taber (1986) found that insiders tend to resemble their leaders on two demographic variables, class
status (i.e., freshman, sophomore, junior, senior) and gender. Among adults in actual work settings, other variables may be of greater importance than demographic items. Moreover, Wexley et al. (1980) compared the importance of actual and perceived leader/follower similarity in predicting follower job satisfaction and performance appraisals. While several of the perceived similarity measures were predictive of follower satisfaction and performance appraisals, none of the actual similarity measures were significant predictors.

The relationship between perceived similarity and insider/outsider differentiation has not been investigated. Because of its demonstrated importance in other interpersonal interactions (e.g., Byrne, 1971), however, it is a possible input to the leader-follower exchange process.

H1 Followers whom leaders perceive as similar (rather than dissimilar) to themselves are more likely to be insiders.

**Follower Competence**

Follower competence is emerging as an important determinant of leader behaviors toward work group members. Having competent followers is axiomatically beneficial to a leader. In their discussion of noncontractual social exchange (NSE), Kim and Organ (1982) present a compelling
argument for follower competence as a strong determinant of leader behavior. They argue that leader-initiated NSE benefits a leader through follower task contributions beyond some minimum demanded by an employment contract. This argument is quite similar to that of Graen and his colleagues (e.g., Graen & Scandura, 1987).

Kim and Organ (1982) devised a realistic role-play to determine the impact of follower competence on NSE. Employed MBA students (most of whom were in supervisory positions) were asked to assume the role of a department manager in charge of a project. They were provided information about department history and project details along with a recent performance appraisal for a (hypothetical) new work group member. A measure of NSE and Fiedler's (1967) Least Preferred Coworker (LPC) scale were among the instruments the MBAs completed. It was hypothesized that follower competence would be positively related to degree of leader-initiated NSE, and that task stress and leader orientation (as measured by the LPC scale) would moderate this relationship. Contrary to what might be expected based on most leadership theories, leader orientation (task vs. relationship) did not affect leader predisposition to treat followers differently. Similarly, contrary to expectations, task stress was not correlated with the extent to which leaders differentiated among followers based on competence. There was, however, a
strong main effect for member competence, accounting for 17 percent of the explained variation in NSE. The magnitude of this result, particularly in light of the relative realism of the role-play, is noteworthy.

Other studies investigating the relationship between follower competence and leader behavior have also reported notable results. In a laboratory study, Lowin and Craig (1968) used high- and low-competence (confederate) followers to investigate the relationship between competence and leader responses. Subjects (leaders) recommended closer supervision for low-competence relative to high-competence followers. In addition, leaders displayed lower initiating structure and higher consideration with competent followers. Similarly, Greene (1975), in a field setting with first-line managers from service and manufacturing firms, demonstrated that follower performance affected leaders' emphasis on consideration and initiating structure. Again, relative leader consideration and initiating structure varied with member performance, substantiating Lowin and Craig's (1968) findings.

Results obtained in a study of decision influence lend support to the notion that leader perceptions of follower competence are tied to in-/out-group status (Scandura, Graen, & Novak, 1986). Leaders reported significantly higher levels of decision influence only for followers with higher LMX levels (i.e., in-group members) and high
performance ratings. There were no significant differences among three other cells (high on only one dimension or low on both). Although this research involved intact groups and did not focus on determinants of in-/out-group status, the finding that leaders coupled in-group status and high performance may be an indication that they are linked.

Finally, results of two recent investigations of leader-follower interactions and resulting LMX levels underscore the need to further examine follower competence effects. Dockery and Steiner (1990) investigated initial leader-follower interactions in a laboratory setting. They reported a strong correlation between follower competence and LMX level. Further, regression analysis indicated that follower competence was a significant predictor of LMX level. Wayne and Ferris (1990) conducted both laboratory and field studies in which competence (measured by leaders' performance ratings of followers) was hypothesized to affect LMX level. Using LISREL VI (Jöreskog & Sorbom, 1981), they found performance ratings to be causally antecedent to LMX level only in a laboratory setting. Results from an actual work setting, however, revealed a nonsignificant relationship between these two variables. Knowledge of the true relationship between follower competence and LMX level, and whether it is contextually dependent, consequently awaits further research.
Taken together, results of extant studies examining leader behavior indicate that follower competence is a potential factor that should be included in investigating in-/out-group status.

H2 Followers judged by leaders to be more competent are more likely to be insiders than followers judged as less competent.

**Introversion/Extraversion**

The twin constructs of introversion and extraversion (Eysenck, 1967) are grounded in neuropsychological research. Both constructs are based on the concept of arousal, which refers to activation or alertness. Eysenck argues that introverts and extraverts differ in their inherent levels of arousal; while extraverts have lower, introverts have higher than optimum arousal levels. Therefore, extraverts seek stimulation while introverts avoid stimulation, both seeking to attain an optimal state. Gale (1981) discusses different strategies for resolving the conflict between inherent and optimum arousal levels. Behaviorally, in trying to increase arousal, extraverts seek interaction with others, novel experiences, and more complex, varied, and intense stimuli. In contrast, introverts tend to prefer their own company or that of habitual companions, and follow predictable paths, avoiding excessive sensory input. In a work setting, it is likely that extraverted followers, seeking stimulation, would
attempt greater interaction with leaders not only for the satisfaction of interacting, but for the possibility of being assigned less routine tasks. This parallels insider behavior.

H3 Extraverts are more likely than introverts to be insiders.

Locus of Control

Locus of control (Rotter, 1966) is a personality variable which has been widely used in studies of workplace behavior. As explained by Rotter (1966), people with an internal locus of control (i.e., internals) generally feel that they can control events in their lives. In contrast, people who generally feel that outside or environmental forces control events in their lives (i.e., externals) are said to have an external locus of control.

Spector (1982) reviewed the literature on locus of control and summarized likely effects on work group interactions. Of interest here is internals' tendency regarding situational control. That is, since internals believe they can control a work setting through their behavior, they should attempt more control (relative to externals) if they believe the control will lead to desired outcomes. Thus, as Spector notes, internals would probably attempt to control elements such as work flow, task accomplishment, operating procedures/policies, work assignments, supervisor relationships, working conditions,
goal setting, and work scheduling. The LMX model discusses such leader-member negotiation as characteristic of in-group exchanges. Moreover, significant rewards in terms of interesting assignments accrue to followers involved in high-quality exchanges. Internals would be more likely to view negotiating behavior as instrumental to desired outcomes.

**H4** Followe rs having an internal (rather than external) locus of control are more likely to be insiders.

**Growth Need Strength (GNS)**

Growth need strength (GNS) is a personal characteristic that concerns a person's desire to grow and develop as an individual. Graen and Scandura (1987) emphasize the importance of GNS in their discussion of role-making. Indeed, they contend that having some work group members with job growth potential (ability) and motivation to accept challenges beyond their job descriptions contributes to the success of leader-follower exchanges. To date, GNS has been included as a moderator in two LMX studies. Graen, Novak, and Sommerkamp (1982) trained leaders of data processing technicians in the theory and procedures of dyadic role-making. Leaders were instructed in and role-played leader-follower interactions such as active listening and exchanging expectations. Following training, leaders utilized their new skills in actual leader-follower
interactions. Results indicated that follower GNS moderated the relationship between leader training and productivity changes. That is, while the training produced no hard productivity gains for followers in the middle- and lower-thirds on GNS, followers in the upper-third on GNS showed strong (52%) improvement in hard productivity (cases processed per hour) with no decrease in quality. In a replication of this study, Graen, Scandura, and Graen (1986) again found impressive (54%) increases in hard productivity for higher-GNS followers, with no improvement for lower-GNS followers.

Since followers in higher-quality exchanges receive greater job latitude and more challenging assignments, it is reasonable to investigate the relationship between GNS and in-/out-group status.

**H5** Followers high (rather than low) on GNS are more likely to be insiders.

**METHOD**

**Subjects**

Subjects were 130 full-time registered nurses and their supervisors (n = 12) employed at a large hospital in the southern United States. Although the supervisors are responsible for nurses on three different shifts, they work directly only with nurses on the day shift. Therefore, only nurses employed on this shift were included.
Eighty-four nurses (followers) and 12 supervisors (leaders) completed questionnaires, resulting in a response rate of 68%. Work group size ranged from 5 to 24 followers, with an average of 11.

Demographic variables assessed for all respondents are summarized in Table 1. Leaders were mostly female (83%) with an average age of 39.4 years. The majority (83.3%) held at least an undergraduate degree. Their average organizational tenure was 10.7 years, with an average of 5.7 years in their current positions.

Followers were predominantly female (88.1%), and averaged 36.7 years old. The majority (76.2%) held at least an undergraduate degree. Their average organizational tenure was 6.7 years, with an average of 3.8 years in their current positions and an average of 1.9 years working for their current leaders.

**Procedure**

Questionnaires were distributed to leaders and followers with a cover letter explaining the importance of the reported study. Confidentiality was guaranteed and participation voluntary. As an incentive to participate in the study, names of all nurses and supervisors completing questionnaires were entered in a random drawing for a $100.00 gift certificate to a local department store. Participants were asked to return questionnaires within approximately 3 weeks. Nurses and supervisors who had not
# Table 1

**Mean Demographic Characteristics of Leaders and Followers**

<table>
<thead>
<tr>
<th></th>
<th>Leaders(^a)</th>
<th></th>
<th>Followers(^b)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>39.42</td>
<td>5.52</td>
<td>36.69</td>
<td>9.33</td>
</tr>
<tr>
<td>Tenure with organization</td>
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<td>7.53</td>
<td>6.68</td>
<td>6.06</td>
</tr>
<tr>
<td>Tenure in position</td>
<td>5.65</td>
<td>6.94</td>
<td>3.76</td>
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</tr>
<tr>
<td>Tenure with leader</td>
<td>---</td>
<td>---</td>
<td>1.94</td>
<td>2.08</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16.67%</td>
<td></td>
<td>11.90%</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>83.33%</td>
<td></td>
<td>88.10%</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school graduate</td>
<td>---</td>
<td></td>
<td>1.19%</td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>16.67%</td>
<td></td>
<td>20.24%</td>
<td></td>
</tr>
<tr>
<td>College graduate</td>
<td>41.67%</td>
<td></td>
<td>67.86%</td>
<td></td>
</tr>
<tr>
<td>Some graduate work</td>
<td>8.33%</td>
<td></td>
<td>5.95%</td>
<td></td>
</tr>
<tr>
<td>Master's degree</td>
<td>33.33%</td>
<td></td>
<td>2.38%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>---</td>
<td></td>
<td>2.38%</td>
<td></td>
</tr>
</tbody>
</table>

\(^{a}n = 12.\)

\(^{b}n = 84.\)
responded by that time were sent follow-up questionnaires. Completed questionnaires were returned to a locked drop box placed in the hospital, and were collected by the researcher.

Separate questionnaires were constructed for leaders and followers. A thirteen-item leader questionnaire consisted of six items measuring perceived similarity and seven items measuring follower competence. Leaders completed a separate questionnaire for each of their followers. In addition, leaders were asked to rank their followers in terms of quality of work relationships (best to worst). A sample leader questionnaire appears in Appendix A. The follower questionnaire consisted of thirty-six items measuring insider/outsider status (seven items), introversion/extraversion (six items), locus of control (eleven items), and growth need strength (twelve items). A sample follower questionnaire appears in Appendix B. Both leader and follower questionnaires also included demographic, education, and employment history items (see Appendices C and D).

Measures

**Follower insider/outsider status.** The Leader-Member Exchange Scale (Graen, Liden, & Hoel, 1982) was used to measure in-/out-group status (see Appendix E). This scale, completed by followers, consists of seven items with a five-point multiple-choice response format. A sample item
is: "How well does your leader recognize your potential?" (1 = not at all; 5 = fully). Followers indicate which of the five alternatives is most descriptive of relationships with their leader. Responses were summed across items to yield an overall score, with higher scores indicative of in-group status. Cronbach's (1951) alpha was .87.

In the current study, follower self-reported insider/outsider status was the dependent measure. Several of the independent measures were also self-reported.

Common method bias is a potential confound whenever independent and dependent measures are both assessed using single-source self-reports. Two approaches have been used to avoid common method bias in LMX research. Scandura et al. (1986) developed the Superior's LMX (SLMX) Scale, which asks the same questions as the LMX scale, but from a leader's viewpoint. That is, this scale asks leaders to respond to a set of questions concerning their working relationship with each follower. Reported results from longitudinal studies have revealed that leaders initially tend to give socially desirable answers (i.e., to report that they treat all followers alike), resulting in a restricted range of leader responses (Scandura et al., 1986). While this tendency decreases with repeated measurements over time, the SLMX Scale is likely only appropriate for longitudinal studies involving multiple data-collection waves. If data are to be collected at one
time only (e.g., via administration of a single questionnaire), the SLMX Scale is probably inappropriate.

A second approach uses leader nominations (e.g., Dockery & Steiner, 1990; Duchon et al., 1986) to verify follower self-reported LMX level. Leaders are asked to name the individual work group members with whom they work best and worst. Both Dockery and Steiner (1990) and Duchon et al. (1986) have demonstrated convergent validity between leader nominations and follower self-reported LMX level. Consequently, in the present study, leader nominations were used to assess agreement between leaders and followers on LMX level. Leaders were asked to rank followers, listing in order those with whom they work best or most successfully to those with whom they work worst or least successfully (see Appendix F).

Similarity. Previous research indicates that perceived similarity is more important in leader-follower relationships than actual similarity (Wexley et al., 1980). Based on this research, Pulakos and Wexley (1983) asked 171 leaders to respond to the statement, "My subordinate and I are similar kinds of people". In addition to this global item, leaders in the present study were asked to assess the similarity between themselves and their followers in terms of both education (viz., "This subordinate and I have similar educational backgrounds") and attitudes on general issues. The latter was assessed using two general
work-related statements taken from Byrne's (1971) twelve-item Attitudinal Sentences questionnaire (i.e., "This subordinate and I have similar opinions on career strategies" and "This subordinate and I probably have similar opinions on whether money should be a factor in choosing a career"). In addition, two other general items were included (i.e., "This subordinate and I have similar family backgrounds" and "This subordinate and I have similar goals in life"; see Appendix G.) Both Duchon et al. (1986) and Zalesny and Kirsch (1989) have found educational similarity to be an important input to leader-follower interactions. Likewise, perceived similarity on general issues has been found to be important in a variety of interpersonal contexts (e.g., Byrne, 1971). All six items had response alternatives ranging from strongly agree (5) to strongly disagree (1). Scores were computed by summing across items, with higher scores indicative of similarity. Cronbach's (1951) alpha was .81.

Follower competence. Follower competence was assessed using the Employee Rating Scale (ERS; Graen, Dansereau, & Minami, 1972). The ERS is a seven-item performance measure which assesses a leader's view of a follower's performance level in such areas as planning and people skills. Response alternatives vary by item (see Appendix H). Scores were computed by summing across items, with higher
scores indicating higher competence levels. Cronbach's (1951) alpha was .91.

**Introversion/extraversion.** Follower introversion/extraversion was assessed using Eysenck's (1958) questionnaire (see Appendix I). Respondents answered "yes" or "no" to six items such as "Do you prefer action to planning for action?" Each "yes" answer was scored as +1, and each "no" answer was scored -1. Scores can thus range from -6 to +6, with higher scores indicative of extraversion. The Guttman (1945) split-half coefficient was .56.

**Locus of control.** A short form (Valecha, 1972) of Rotter's (1966) I-E Scale was used to assess followers' locus of control (LOC; see Appendix J). Containing eleven paired items (i.e., alternatives), this forced-choice instrument has psychometric properties similar to those of the original Rotter scale (Valecha, 1972). Details regarding item analysis may be found in Rotter (1966). Each item pair includes one statement more representative of persons having an internal and one more representative of persons having an external locus of control. Respondents are to choose one item from each pair. Items deal with respondents' beliefs about "the nature of the world." As such, "they are concerned with respondents' expectations about how reinforcement is controlled" (Rotter, 1966, p.10).
A sample item indicative of external LOC is: "Many of the unhappy things in people's lives are partly due to bad luck." An exemplary internal LOC item is: "In the long run people get the respect they deserve in this world." One point was assigned for each "external" statement chosen. Total scores were computed by summing across these items. Respondents scoring lower were classified as having an internal LOC, relative to those scoring higher, who were classified as having an external LOC.

Split-half and Kuder-Richardson (1937) reliabilities were computed, although both tend to underestimate scale reliabilities (Rotter, 1966). That is, since the I-E Scale is additive and its items are not comparable, split-half reliability tends to underestimate its internal consistency. KR-20 reliability is likewise limited in the present case because the I-E Scale is forced-choice, with no attempt to balance alternatives so that the probabilities of endorsing either alternative do not include more extreme splits (Rotter, 1966, p. 10). The split-half reliability was .72; Kuder-Richardson was .61.

Growth need strength. Follower growth need strength (GNS) was assessed using the "job choice" section of the Job Diagnostic Survey (JDS; Hackman & Oldham, 1975). Followers were asked to indicate their relative preference for twelve pairs of hypothetical jobs (see Appendix K). For each case, a statement describing a job with
characteristics indicative of GNS is paired with a statement describing a job with characteristics indicative of an alternative need such as affiliation or job security (e.g., "A job where you are often required to make important decisions" vs. "A job with many pleasant people to work with"). The paired jobs serve as anchors for opposite ends of a 5-point scale, with choices ranging from **Strongly prefer A** to **Strongly prefer B**. Response scores were summed to compute an overall GNS score, with higher scores indicating higher GNS levels. The ipsative nature of this measure renders internal consistency measures inappropriate (Graen, Novak, & Sommerkamp, 1982).

**Analyses**

Research on the LMX model often classifies followers as insiders or outsiders based on trichotomized LMX Scale raw scores (upper one-third classified as insiders, lower one-third classified as outsiders). Since the LMX model focuses on within-group differences in leader-member relationships, data analysis should likewise reflect a within-group approach (Dockery & Steiner, 1990). Following accepted practice, deviation scores (cf. Dockery & Steiner, 1990; Graen, Liden, & Hoel, 1982; Scandura & Graen, 1984) were computed for each group by subtracting that group's average score from each group member's score. In the present study, these deviation scores (follower in-/out-group status) were used as a continuous variable.
The study's five hypotheses were tested using correlation and multiple regression analyses. First, bivariate correlations between each of the five independent variables (i.e., similarity, competence, introversion/extraversion, locus of control, and growth need strength), and the dependent variable (follower in-/out-group status) were computed. Second, follower in-/out-group status was regressed on the five independent variables. Only those independent variables which had significant bivariate correlations with the dependent variable or which contributed significantly to the regression were used in subsequent analyses.

Hierarchical multiple regression was used to examine the association between the retained independent variables (i.e., similarity, competence, and introversion/extraversion) and follower in-/out-group status. Given its stepwise nature, hierarchical multiple regression is beneficial for controlling covariates that may confound an analysis. Three demographic variables (i.e., age, gender, and organizational tenure) were correlated with one or more of the independent variables. A fourth variable, education, was included because of prior research which indicates that leader-follower educational similarity affects leader ratings of follower performance (Zalesny & Kirsch, 1989). (For this reason, educational similarity was one of six items included in the perceived similarity
measure developed for the current study.) These four variables (i.e., age, gender, organizational tenure, and education) were entered as a functional block in the first step and treated as covariates. Using functional blocks hierarchically controls for variance attributable to nonfocal variables. Here, this means controlling the influence of demographic variables before considering the relationship between similarity, competence, and introversion/extraversion and follower in-/out-group status. The three independent variables were added in the second step. The order of entry of the independent variables was varied to test their relative abilities to predict unique variance in follower in-/out-group status. This procedure is referred to as a usefulness analysis (Darlington, 1968). It examines a predictor's contribution to unique variance in a criterion beyond another predictor's contribution.

RESULTS

An independent samples t-test was conducted to assess agreement between follower self-reported LMX scores and leader rankings of their followers in terms of quality of work relationships. Self-reported LMX scores of followers designated by leaders as those with whom they worked best and worst were significantly different and in the expected direction (t = -2.75, p < .01). That is, followers ranked
in the upper one-third had significantly higher LMX scores \( (M = 29.54) \) than followers ranked in the lower one-third \( (M = 26.54) \). Since leader nominations and follower self-reports were in close agreement, only the continuous self-reported LMX scores (converted to deviation scores) were used in subsequent statistical analyses as the dependent variable.

Variable means, standard deviations, and measure reliabilities are reported in Table 2. Reliability for the introversion/extraversion measure (.56) was lower than typically reported (e.g., Eysenck, 1958). Reliabilities for the locus of control measure \( (KR-20 = .61; \text{split-half} = .72) \) were low but consistent with those reported in other studies (see Rotter, 1966, for a review).

Zero-order correlations among the study variables are displayed in Table 3. Three of the independent variables (i.e., similarity, competence, and introversion/extraversion) had significant bivariate correlations with the dependent variable, in-/out-group status \( (r = .26, \text{for all three}) \). Table 4 presents results of an initial regression analysis of the five independent variables on follower in-/out-group status with the four covariates controlled. The two independent variables which were not significantly correlated with the dependent variable (i.e., locus of control and growth need strength) did not contribute significantly to this regression. Thus, only
Table 2

**Variable Means, Standard Deviations, and Measure Reliabilities**

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Mean</th>
<th>S.D.</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follower LMX level</td>
<td>84</td>
<td>27.85</td>
<td>4.45</td>
<td>.87</td>
</tr>
<tr>
<td>Similarity</td>
<td>84</td>
<td>18.20</td>
<td>4.15</td>
<td>.81</td>
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<tr>
<td>Competence</td>
<td>84</td>
<td>36.85</td>
<td>8.47</td>
<td>.91</td>
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<tr>
<td>Introversion/extraversion</td>
<td>84</td>
<td>2.88</td>
<td>2.98</td>
<td>.56</td>
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<tr>
<td>Locus of control</td>
<td>82</td>
<td>4.06</td>
<td>2.03</td>
<td>.72/.61b</td>
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<tr>
<td>Growth need strength</td>
<td>84</td>
<td>36.77</td>
<td>6.11</td>
<td>na</td>
</tr>
</tbody>
</table>

* KR-20 reliability

b Split-half reliability
### Table 3

**Variable Intercorrelations**

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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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</thead>
<tbody>
<tr>
<td>1. LMX deviation score*</td>
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<td>2</td>
<td>.26*</td>
<td></td>
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<td></td>
<td></td>
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<td>2. Similarity</td>
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<td></td>
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</tr>
<tr>
<td>3. Competence</td>
<td>.26*</td>
<td>.39**</td>
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<td></td>
</tr>
<tr>
<td>4. Introversion /extraversion</td>
<td></td>
<td>.26*</td>
<td>.16</td>
<td>-.18</td>
<td>--</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>5. Locus of control</td>
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<td>.03</td>
<td>-.10</td>
<td>.11</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Growth need strength</td>
<td>.17</td>
<td>.05</td>
<td>.22*</td>
<td>.20</td>
<td>-.09</td>
<td>--</td>
<td></td>
<td></td>
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<td>7. Age</td>
<td>.01</td>
<td>-.35**</td>
<td>-.31**</td>
<td>.04</td>
<td>-.13</td>
<td>.07</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Gender</td>
<td>.15</td>
<td>-.12</td>
<td>.24*</td>
<td>-.09</td>
<td>.03</td>
<td>.31**</td>
<td>-.01</td>
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<tr>
<td>9. Organizational tenure</td>
<td>.08</td>
<td>-.29**</td>
<td>-.02</td>
<td>.00</td>
<td>.00</td>
<td>.03</td>
<td>.45**</td>
<td>.08</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>10. Education</td>
<td>.15</td>
<td>-.08</td>
<td>-.01</td>
<td>-.03</td>
<td>-.01</td>
<td>.06</td>
<td>-.04</td>
<td>-.03</td>
<td>.16</td>
<td>--</td>
</tr>
</tbody>
</table>

*Measure of follower in-/out-group status (dependent variable).

* $ p < .05.$

** $ p < .01.$
## Table 4

**Initial Regression Analysis for Follower In-/Out-group Status**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.13</td>
</tr>
<tr>
<td>Gender</td>
<td>.18</td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.07</td>
</tr>
<tr>
<td>Education</td>
<td>.22*</td>
</tr>
<tr>
<td>Similarity</td>
<td>.27*</td>
</tr>
<tr>
<td>Competence</td>
<td>.22</td>
</tr>
<tr>
<td>Introversion/extraversion</td>
<td>.25*</td>
</tr>
<tr>
<td>Locus of control</td>
<td>-.12</td>
</tr>
<tr>
<td>Growth need strength</td>
<td>-.06</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.27</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.17</td>
</tr>
<tr>
<td>$E$</td>
<td>2.77**</td>
</tr>
</tbody>
</table>

$n = 84$.

*p < .05.

**p < .01.
three variables (i.e., similarity, competence, and introversion/extraversion) were retained for subsequent analyses. Multicollinearity was a potential problem because of the significant correlation ($r = .39$, $p < .01$) between similarity and competence. Variable tolerance is a commonly used measure of collinearity, with a small tolerance indicating collinearity (Norusis, 1990, p. 288). Variable tolerances for similarity and competence were .66 and .67, respectively; thus, multicollinearity was judged not to present a problem in this analysis. Two of these variables (i.e., similarity and competence) were leader-assessed, and thus were available for all followers (respondents and nonrespondents). Independent samples $t$-tests revealed no significant differences in these two variables for respondents and nonrespondents.

The relationship between similarity, competence, and introversion/extraversion and follower in-/out-group status are shown in Table 5. Individual beta weights with their standard errors are reported. The beta weights provide a rough estimate of the relative contributions of the three independent variables in predicting in-/out-group status.

Table 5 shows a positive and significant education covariate ($\beta = .22$, $p < .05$), confirming the need to control for this variable. Including the three independent variables (i.e., similarity, competence, and introversion/extraversion) resulted in a .20 increase in $R^2$ beyond the
covariates, $F(7, 71) = 6.35, p < .001$. Similarity ($\beta = .27, p < .05$) and introversion/extraversion ($\beta = .23, p < .05$) were significantly related to follower in-/out-group status, whereas competence ($\beta = .22, \text{ns}$) was not.

Results of the usefulness analysis are presented in Table 6. This analysis shows similarity to be uniquely associated with in-/out-group status regardless of the order in which independent variables enter the regression equation. Further, introversion/extraversion accounts for unique variance in in-/out-group status except when controlling for similarity alone. However, when both similarity and competence are controlled for, introversion/extraversion contributes significantly to variance in the criterion. Finally, competence accounts for unique variance only when it is entered first or when entered after introversion/extraversion. Competence does not account for any unique variance beyond that of similarity. This finding, coupled with the significant correlation between competence and similarity (see Table 3, $r = .39, p < .01$), indicates that similarity may mediate the relationship between competence and LMX level. Following the procedures suggested by Baron and Kenny (1986) and by Staines, Pottick, and Fudge (1986), correlation and multiple regression analyses were used to examine the relationship among these variables. The results of this analysis are presented in Tables 3 and 7.
Table 5
Hierarchical Regression Analysis for Follower In-/Out-group Status

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th>Step 2</th>
<th>SEβ1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(β₁)</td>
<td>(β₂)</td>
<td></td>
</tr>
<tr>
<td>Covariate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.00</td>
<td>.15</td>
<td>.13</td>
</tr>
<tr>
<td>Gender</td>
<td>.15</td>
<td>.15</td>
<td>.11</td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.06</td>
<td>.06</td>
<td>.12</td>
</tr>
<tr>
<td>Education</td>
<td>.17</td>
<td>.22*</td>
<td>.10</td>
</tr>
<tr>
<td>Main Effect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Similarity</td>
<td></td>
<td>.27*</td>
<td>.13</td>
</tr>
<tr>
<td>Competence</td>
<td></td>
<td>.22</td>
<td>.13</td>
</tr>
<tr>
<td>Introversion/extraversion</td>
<td></td>
<td>.23*</td>
<td>.11</td>
</tr>
<tr>
<td>df</td>
<td>(4,74)</td>
<td>(7,71)</td>
<td></td>
</tr>
<tr>
<td>Overall F</td>
<td>1.00</td>
<td>3.41</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.05</td>
<td>.25**</td>
<td></td>
</tr>
<tr>
<td>ΔR²</td>
<td></td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>F(ΔR²)</td>
<td></td>
<td>6.35***</td>
<td></td>
</tr>
</tbody>
</table>

*P < .05.

**P < .01.

***P < .001.
Table 6
Alternative Hierarchical Regressions of Follower In-/Out-Group Status on Similarity, Competence, and Introversion/Extraversion (n = 84)

<table>
<thead>
<tr>
<th>Variables entered</th>
<th>R²</th>
<th>R²</th>
<th>ΔR²</th>
<th>R²</th>
<th>R²</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates first, competence second, similarity third, introversion/extraversion fourth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1: Covariates</td>
<td>.05</td>
<td>.12</td>
<td>.07*</td>
<td>.20</td>
<td>.08**</td>
<td>.05*</td>
</tr>
<tr>
<td>Competence beyond covariates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Similarity beyond covariates and competence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introversion/extraversion beyond covariates, competence, and similarity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(table continues)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6 (continued)

| Covariates first, similarity second, introversion/extraversion third, competence fourth |
|---------------------------------|-------------|
| **Step 1:** Covariates          | $R^2_{1} = .05$ |
| **Step 2:** Similarity          | $R^2_{2} = .19$ |
| Similarity beyond covariates    | $\Delta R^2 = .14^{***}$ |
| **Step 3:** Introversion/extraversion | $R^2_{3} = .22$ |
| Introversion/extraversion beyond covariates and similarity | $\Delta R^2 = .03$ |
| **Step 4:** Competence          | $R^2_{4} = .25$ |
| Competence beyond covariates, similarity, and introversion/extraversion | $\Delta R^2 = .03$ |

Covariates first, similarity second, competence third, introversion/extraversion fourth

| **Step 1:** Covariates          | $R^2_{1} = .05$ |
| **Step 2:** Similarity          | $R^2_{2} = .19$ |
| Similarity beyond covariates    | $\Delta R^2 = .14^{***}$ |
| **Step 3:** Competence          | $R^2_{3} = .21$ |
| Competence beyond covariates and similarity | $\Delta R^2 = .02$ |
| **Step 4:** Introversion/extraversion | $R^2_{4} = .25$ |
| Introversion/extraversion beyond covariates, similarity, and competence | $\Delta R^2 = .05^{*}$ |

(table continues)
Table 6 (continued)

<table>
<thead>
<tr>
<th>Step</th>
<th>Covariates first, introversion/extraversion second, similarity third, competence fourth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Covariates</td>
</tr>
<tr>
<td>R²</td>
<td>.05</td>
</tr>
<tr>
<td>2</td>
<td>Introversion/extraversion</td>
</tr>
<tr>
<td>R²</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td>Introversion/extraversion beyond covariates</td>
</tr>
<tr>
<td>ΔR²</td>
<td>.07*</td>
</tr>
<tr>
<td>3</td>
<td>Similarity</td>
</tr>
<tr>
<td>R²</td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>Similarity beyond covariates and introversion/extraversion</td>
</tr>
<tr>
<td>ΔR²</td>
<td>.10**</td>
</tr>
<tr>
<td>4</td>
<td>Competence</td>
</tr>
<tr>
<td>R²</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>Competence beyond covariates, introversion/extraversion, and similarity</td>
</tr>
<tr>
<td>ΔR²</td>
<td>.03</td>
</tr>
</tbody>
</table>

Note. Discrepancies in some R² values across analyses are due to rounding.

* p < .05.
** p < .01.
*** p < .001.
Table 7

Results of Regression Analyses Testing Similarity as a Mediator of the Relationship Between Competence and Follower In-/Out-Group Status*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1 Before Covariates</th>
<th>Step 2 After Covariates</th>
<th>Step 3 After Covariates and Mediator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>.27*</td>
<td>.30*</td>
<td>.16</td>
</tr>
<tr>
<td>Covariate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.12</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.08</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>-.00</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.17</td>
<td>.22*</td>
<td></td>
</tr>
<tr>
<td>Mediating Variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Similarity</td>
<td></td>
<td>.35**</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.15***</td>
<td>.12</td>
<td>.21**</td>
</tr>
</tbody>
</table>

*Cell entries are standardized regression coefficients.

*p < .05.

**p < .01.

***p < .001.
regressions were conducted. In the first step, follower in-/out-group status was regressed on competence to assess the relationship between the independent and dependent variables. This relationship was significant, $\beta = .27$, $p < .05$. In the second step, in-/out-group status was regressed on competence and on the covariates (i.e., age, gender, organizational tenure, and education) entered as a functional block. Competence was still significant, $\beta = .30$, $p < .05$. In the third equation, follower in-/out-group status was regressed on competence, the covariates, and similarity, the proposed mediator. The relationship between similarity and the dependent variable, in-/out-group status, was significant, $\beta = .35$, $p < .01$. Further, the relationship between competence and the dependent variable was reduced to nonsignificance ($\beta = .16$, $p > .05$) with the addition of similarity. Taken together, these conditions indicate a mediated relationship. In summary, it appears that similarity and introversion/ extraversion are both uniquely associated with follower in-/out-group status and that similarity mediates the relationship between competence and in-/out-group status.

Results for each hypothesis are summarized below:

Hypothesis 1

The first hypothesis predicted that followers whom leaders perceive as similar to themselves are more likely
to be insiders. This hypothesis was supported by both
correlation and regression analyses.

Hypothesis 2

Hypothesis 2 predicted that followers whom leaders see
as more competent are more likely to be insiders. This
hypothesis was supported by correlation analysis. However,
competence was not significant in the usefulness analysis.

Hypothesis 3

The third hypothesis, which predicted that extraverts
are more likely to be insiders than introverts, was
supported by both correlation and regression analyses.

Hypothesis 4

The fourth hypothesis predicted that followers having
an internal locus of control are more likely to be insiders
than followers having an external locus of control. This
hypothesis was not supported by correlation or regression
analyses.

Hypothesis 5

Hypothesis five predicted that followers high (rather
than low) on GNS are more likely to be insiders. This
hypothesis was not supported by correlation or regression
analyses.
DISCUSSION, LIMITATIONS, AND CONCLUSIONS

Discussion

This study examined five variables (i.e., leader-follower similarity, follower competence, introversion/extraversion, locus of control, and growth need strength) which were hypothesized to be related to follower LMX level. Both correlation and regression analyses were used to examine the research hypotheses.

The first hypothesis predicted that followers whom leaders perceive as similar to themselves are more likely to be insiders. Perceived similarity was significantly correlated with follower LMX level, and was therefore included in regression analyses. The usefulness analysis revealed similarity to be uniquely associated with follower LMX level regardless of when it was entered into the regression equation. By itself, similarity accounted for 14% of the criterion variance. Further, similarity explained significant additional variance in follower LMX level when entered on the second step (after controlling for the covariates and either competence or introversion/extraversion) or on the third step (after controlling for the covariates and both competence and introversion/extraversion).

These findings support research results which indicate that similarity is an important factor in a variety of interpersonal relations contexts. The LMX model suggests

53
that compatibility of leader and follower characteristics is an important influence on their exchange process. To date, however, the only other study to include similarity as a variable (Duchon et al., 1986) examined only demographic similarity. The present study extends research on the LMX model by including a leader-assessed measure of perceived similarity. Of the variables included in this investigation, perceived similarity had the strongest relationship with follower LMX level. This finding has several practical implications. First, leaders may be more likely to accord in-group status to followers whom they perceive as similar to themselves. This may result in more positive outcomes (e.g., more challenging assignments, more responsibility, and enhanced career advancement) for these followers relative to their peers. Second, both individual leaders and organizations should be aware of this tendency, which may result in unfair bias in performance appraisals. Third, followers may be able to influence leaders' similarity perceptions, thus improving their own outcomes. Future research should examine perceived and actual similarity jointly to determine their relative influences.

As predicted by the second hypothesis, follower competence, as assessed by leaders, was significantly correlated with follower LMX level. The usefulness analysis, however, revealed that competence accounted for significant variance in follower LMX level (beyond the
covariates) only when it entered the equation first or after controlling for introversion/extraversion. When competence was entered after similarity, it explained no additional variance. There was a significant correlation between leader-assessed competence and leader-assessed similarity ($r = .39, p < .01$). These results indicate that leaders rated followers they perceived as similar to themselves as more competent (or vice versa), and that competence has no significant relationship with follower LMX level beyond similarity.

These findings help reconcile contradictory results from previous research. Two laboratory studies (Dockery & Steiner, 1990; Wayne & Ferris, 1990) found follower competence to be related to LMX level. The Wayne and Ferris study also examined these two variables in a field setting. In that setting, there was not a significant relationship between competence and LMX level. Taken together with the present study's findings, these results indicate that the relationship between competence and follower LMX level may be significant only when competence is the only (or at least a highly salient) variable. This is likely to be true in laboratory settings, where competence is operationalized as performance on some task. In actual work settings, however, competence is only one of many factors available to leaders in making decisions about subordinates (Wayne & Ferris, 1990). It is thus likely
that other variables may exercise more influence in field investigations. This does not mean that follower competence is unrelated to LMX level. It may be an important input into leaders' impressions about their followers. Results of the present study suggest that the effect of competence is mediated by leader-follower similarity. That is, competence is associated with perceived similarity, which is then associated with follower in-/out-group status. Therefore, in the present study, competence had an important, if indirect, relationship with in-/out-group status.

The third hypothesis, which predicted that extraverts were more likely (relative to introverts) to be insiders, was supported by correlation analysis. The usefulness analysis indicated that introversion/extraversion is associated with follower LMX level (beyond the covariates) except when similarity alone is controlled. That is, introversion/extraversion accounts for significant criterion variance when it enters the regression equation first (following the covariates). Further, it explains additional variance beyond both similarity and competence. These results indicate that introversion/extraversion is related to follower LMX level. Moreover, these two variables may be related more strongly than suggested in the present study. The introversion/extraversion measure's
low reliability (.56) may understate the magnitude of its correlation with follower LMX level (Nunnally, 1978).

Behavioral descriptions portray leader interactions with insiders as more frequent than interactions with outsiders (e.g., Graen & Schiemann, 1978). Extraverts, who are more likely than introverts to seek interaction, may thus tend to establish closer relationships with leaders. Further, extraverts' desire for novel experiences (Gale, 1981) may make them more likely to negotiate with leaders for increased responsibility, which is characteristic of insiders. While introversion/extraversion is a personality variable, it is possible that followers desiring to be insiders may be able to learn certain extraverted behaviors, thereby increasing their chances of being insiders.

The fourth hypothesis predicted that followers having an internal (rather than external) locus of control are more likely to be insiders. Since this variable was not significantly correlated with follower LMX level and did not contribute significantly to the initial regression equation, it was not included in subsequent regression analyses. There may be two possible reasons why this variable was not significantly related to follower LMX level. First, followers having an internal locus of control may make more active attempts (relative to externals) to control such elements as work flow, task
accomplishment, operating procedures/policies, work assignments, supervisor relationships, working conditions, goal setting, and work scheduling. The LMX model discusses such negotiations as characteristic of insiders. Another possibility, however, is that leaders may view followers' active attempts to influence these factors as annoying, manipulative, or presumptuous. Further, a limited number of studies suggests that internals exhibit less conformity than externals, and resist social influence attempts (see Spector, 1982, for a review). Such behaviors would be unlikely to result in internals being more likely to be insiders. An alternative explanation concerns situational characteristics and expectancies which may have operated in the present investigation. Expectancy theory (Vroom, 1964), proposes that behavior is motivated by its expected consequences. Thus, internals may attempt to exert more influence (and thus be more likely to be insiders) only in work situations where such behavior is perceived to lead to desired outcomes or rewards (Spector, 1982). Given the well-documented nationwide shortage of nurses, market forces may affect their pay and other extrinsic rewards more than individual performance. Further, since nursing traditionally lacks opportunities for career advancement, subjects in the present study may not perceive that influence attempts lead to rewards, and thus may not engage in these behaviors. Future research in other contexts
could provide more information on the relationship between locus of control and LMX level.

Hypothesis five predicted that followers high (rather than low) on growth need strength are more likely to be insiders. This relationship was predicted based on the LMX model’s emphasized importance of having some followers willing to accept challenges beyond their job descriptions (e.g., Graen & Scandura, 1987), which is characteristic of high-GNS individuals. This hypothesis was not supported by correlation analysis or by results of the initial regression analysis; thus, this variable was not included in subsequent regression analyses. Scores on the GNS measure can range from 12 to 60. In the present study, average GNS was 36.77; standard deviation was 6.11. There may have been insufficient variability in GNS among this sample to detect a relationship with LMX level. Alternately, as with locus of control, high-GNS individuals may be willing to take on extra challenges only if they perceive that rewards are available for doing so. Graen, Novak, and Sommerkamp (1982) demonstrated that high-GNS individuals respond to reward contingencies with appropriately high or low productivity. As discussed above, use of a nursing sample may not afford the ability to test reward-contingent behaviors. The relationship between follower GNS and LMX level should be investigated in future research in a variety of settings.
Limitations

As with any study, there are potential limitations that must be addressed. Most notably, the study relied heavily on self-report measures, which may have biased its results. The "problem" of common method bias is well-known and is thought to account for considerable variance among self-report measures. Spector (1987), however, has investigated this problem in depth and found little supporting evidence. A recent meta-analysis (Wagner & Crampton, 1991) found no consistent evidence of statistical artifacts in research using self-reports. It should be noted, though, that other researchers do not agree with these conclusions (e.g., Williams, Cote, & Buckley, 1989). The present study included four follower self-report measures, one of which (LMX level) was verified by a leader-completed measure. Two additional measures were completed by leaders with respect to followers. Thus, the study did not rely entirely on self-reports. In addition, the number of different measures included, along with their very different response scales, should reduce any possible response bias, thereby vitiating potential common method bias.

Another limitation involves treatment of the three personality variables (i.e., introversion/extraversion, locus of control, and growth need strength) included in the study. These variables were measured only for followers.
Given the demonstrated importance of leader-follower similarity, such variables should probably be assessed for both leaders and followers. Certain combinations of these characteristics between leaders and followers may affect follower in-/out-group status. For example, a leader with an external locus of control may tend to have more in-group members who are also externals. Such combinations should be examined in future research.

Conclusions

This study has attempted to examine selected variables hypothesized to be associated with follower LMX level. Identification of such variables is important for both the theoretical development of the LMX model of leadership and its practical application.

Results indicated that leader/follower similarity (as perceived by leaders), follower competence, and follower introversion/extraversion were significantly correlated with follower LMX level. A usefulness analysis revealed that of these three variables, similarity and introversion/extraversion most consistently accounted for unique criterion variance. Finally, similarity mediated the relationship between competence and follower LMX level.

This study provides further support for the importance of perceived similarity in interpersonal judgment situations. Although this variable had not previously been included in LMX research, its demonstrated impact in the
present study suggests that it should be considered in future investigations.

The relationship between follower competence and LMX level needs to be investigated further. As hypothesized, the two variables were significantly correlated. When it was entered into regression equations last, however, competence did not explain any additional variance beyond that of the covariates (i.e., age, gender, organizational tenure, and education), similarity, and introversion/extraversion. These results, coupled with the significant correlation between competence and similarity, suggested the possibility of a mediated relationship. In the present study, similarity mediated the relationship between competence and LMX level. Future research should test this relationship in other settings, especially since the theoretical development of the LMX model stresses a leader's need for competent followers as one cause of differential LMX levels (Dienesch & Liden, 1986).

Three follower personality variables (i.e., introversion/extraversion, locus of control, and growth need strength) were included in the present study. Of these, only introversion/extraversion was significantly related to follower LMX level. As discussed, use of a nursing sample may have affected the results. Even though locus of control and growth need strength are personality variables, they are associated with certain behaviors which
apparently can be modified in response to situational factors. For example, individuals high in GNS may not exercise typical high-GNS behaviors if they perceive no desirable outcomes for doing so. Locus of control may operate in much the same fashion, with individuals having the ability to alter their behavior in response to perceived situational contingencies. It may be that behaviors associated with introversion/extraversion are less amenable to purposeful control. Alternately, introversion/extraversion may affect a wider range of workplace outcomes (e.g., relationships with coworkers) than those associated with either locus of control or growth need strength (e.g., extrinsic rewards). These outcomes may thus elicit introverted or extraverted behavior.

While the results indicate that both leader/follower similarity and follower introversion/extraversion are associated with follower LMX level, these variables explain only 22% of the variation in LMX level. Therefore, the process of uncovering other variables important in this relationship should continue.

The reported results have several practical implications for both organizations and individual work group members. Organizations desiring accurate performance appraisals may wish to alert leaders to potential biases, such as perceived similarity. This could be included in
leadership training programs. More accurate performance appraisals may enhance job satisfaction and decrease dysfunctional employee turnover, particularly among outsiders. Individual work group members may benefit from learning typical insider behaviors. While the relationship between competence and follower LMX level is still unclear, good performance may be an important input to leader decision making. Further, followers exhibiting extraverted behavior may be more likely to enjoy higher LMX levels, and thus, enhanced career progression.

Both academicians and practitioners will likely continue to be fascinated and challenged by the "leadership puzzle." Continued research building on previous findings will help further our understanding of this ubiquitous construct.
REFERENCES


Dienesch, R. M., & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further


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APPENDIX C

Leader Information Form

Please circle your response or fill in the blank with the appropriate information for each of the following items.

1. What is your sex? male female

2. How old were you on your last birthday? __________

3. What is your job title? ______________________

4. How long have you worked for this organization (in any capacity)? _______ years _______ months

5. How long have you worked for this organization in your present position? _______ years _______ months

6. How much education have you had?
   A. less than high school
   B. high school graduate
   C. some junior college
   D. junior college degree
   E. some senior college
   F. college degree (BS, BA, etc.)
   G. master's degree
   H. doctor's degree
   I. other, explain: ________________________________
      __________________________________________
APPENDIX D

Follower Information Form

Please circle your response or fill in the blank with the appropriate information for each of the following items.

1. What is your sex?  male    female
2. How old were you on your last birthday?    
3. What is your job title?    
4. How long have you worked for this organization (in any capacity)?    years    months
5. How long have you worked for this organization in your present position?    years    months
6. How long have you worked for your present supervisor?    years    months
7. How much education have you had?
   A. less than high school
   B. high school graduate
   C. some junior college
   D. junior college degree
   E. some senior college
   F. college degree (BS, BA, etc.)
   G. master's degree
   H. doctor's degree
   I. other, explain:    

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APPENDIX F

Leader Rankings

Please remember that all the information you give is strictly confidential. Answers from individuals and work groups will not be given to anyone.

This section asks about those subordinates you have been asked to evaluate. In the spaces below, please rank these subordinates in order of how well or successfully you work with them, using the list of code numbers that has been provided along with this booklet.

Please be sure to rank all your subordinates who were included on the list.

<table>
<thead>
<tr>
<th>code number</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Work best or most successfully with</td>
<td>__________</td>
</tr>
<tr>
<td>Work with 2nd best</td>
<td>_______</td>
</tr>
<tr>
<td>Work with 3rd best</td>
<td>_______</td>
</tr>
<tr>
<td>Work with 4th best</td>
<td>_______</td>
</tr>
<tr>
<td>Work with 5th best</td>
<td>_______</td>
</tr>
</tbody>
</table>
PLEASE NOTE

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Antoinette S. Phillips has held several accounting management positions in banking and other service firms. She is currently a faculty member in the Department of Management at Southeastern Louisiana University in Hammond, Louisiana. Her research interests include leadership and interpersonal influence, individual differences, and individual behavior in groups. Her research has appeared in Individual Psychology, the International Journal of Social Economics, and Social Behavior and Personality.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Antoinette S. Phillips

Major Field: Business Administration

Title of Dissertation: Leader-Member Exchange Quality: The Relationship of Similarity, Competence, and Selected Personality Variables

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination: December 11, 1991
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