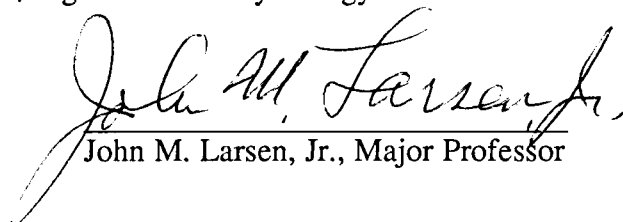
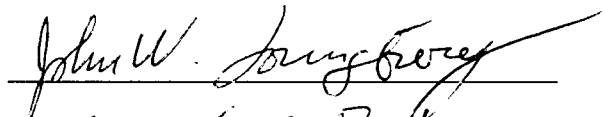


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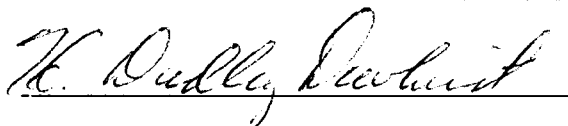
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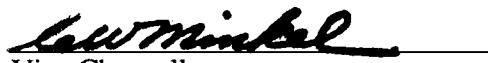
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Vice Chancellor
Graduate Studies and Research

POWER AND LEADERSHIP EFFECTIVENESS:
A STUDY OF SUBORDINATE EVALUATIONS
OF MALE AND FEMALE LEADERS

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Belle Rose Ragins
August 1987

DEDICATED TO MEHER BABA

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ABSTRACT

The increase of women in management has amplified the need to evaluate their performance in leadership roles. While researchers generally agree that there are negligible differences between the genders in actual leadership behavior, they have been puzzled over the inconsistent findings on subordinate evaluations of female leaders' effectiveness; compared to male leaders, female leaders have been found to receive lower, higher and commensurate ratings of equivalent leader behavior.

One explanation for these inconsistent findings is that subordinates may be responding to gender differences in leader power. An integrated review and analysis of the literature on gender differences in power in organizations and subordinate evaluations of male and female leaders is presented, along with a typology of power and a conceptual model of power and the leader-subordinate relationship.

The relative influence of leader gender and perceived leader power on subordinate evaluations of leader effectiveness was investigated in a field study of 110 subordinates (55 male and 55 female) of matched pairs of male and female leaders in three organizations. To control for gender differences in power, leaders were matched on organizational level, function, and, where possible, specialization. As predicted, perceived leader power accounted for more of the variance in leadership evaluations than leader gender. Leader gender did not significantly influence subordinate ratings of leader effectiveness. Additionally, there was a lack of support for the theory that power is gender-typed; male and female leaders received equivalent ratings when perceived as using the same forms of power.

Theoretical and applied implications of these findings for women in management are discussed. Future directions for research in this area are suggested.

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INTRODUCTION

The increase of women in managerial positions (U.S. Department of Labor, 1979, 1984) has amplified the need to evaluate their performance in leadership roles (Gordon & Strober, 1975; Nieva & Gutek, 1981; Terborg, 1977). Researchers reviewing the literature on gender differences in leadership behavior generally concur that while there are negligible differences in actual leadership behavior, subordinate's evaluations of the leader's behavior appears to be influenced by the leader's gender (Bartol, 1978; Brown, 1979; Jacklin & Macoby, 1975; Nieva & Gutek, 1981; White, DeSanctis & Crino, 1981). Subordinate evaluations and support may be an important determinant of upward mobility and power in organizations (Blackburn, 1981; Mechanic, 1962; Mintzberg, 1983; Mowday, 1978; Pfeffer, 1981; Weick, 1969). An understanding of the processes and gender differences involved with subordinate evaluation of leadership behavior may therefore help to explain why female managers are not as upwardly mobile as their male counterparts (Roussell, 1974; Rossi, 1970; Stewart & Gudykunst, 1982; Terborg, 1977).

Subordinates have been found to evaluate their female leaders inconsistently (cf. Brown, 1979; Terborg & Shingledecker, 1983). In some studies, subordinates gave higher evaluations to male as opposed to female leaders (Cohen, Bunker, Burton & McManus, 1978; Bartol & Butterfield, 1976; Haccoun, Haccoun & Sallay, 1978; Petty & Lee, 1975); whereas in other studies subordinates either did not differ in their evaluations (Adams, 1978; Bartol & Wortman, 1975; Osborn & Vicars, 1976; Petty & Bruning, 1980; Rice, Instone & Adams, 1984; Rosen & Jerdee, 1973; Stitt, Schmidt, Price and Kipnis, 1983; Terborg & Shingledecker, 1983), or rated female leaders higher than their male counterparts (Bartol, 1975; Bartol & Butterfield, 1976; Petty & Miles, 1976).

Nieva and Gutek (1981) suggest that these inconsistent findings may be due to subordinates responding to differences between the genders in power, rather than the

leader's gender. Females in organizations generally tend to have less power than their male counterparts (cf. Ragins & Sundstrom, 1987). Female leaders may receive lower evaluations than their male counterparts if they are perceived as lacking the power required to function effectively and provide for their subordinates needs. To date, no field study has been explicitly designed to explore this explanation.

The purpose in this study was to explore and compare the effects of perceived leader power and leader gender on subordinate evaluations of leader effectiveness. It was hypothesized that while leader gender influences evaluation of leader effectiveness, the subordinate's perception of the leader's power would have a greater impact on leadership evaluations than the leader's gender. In this study the relationships and interactions between leader gender and the type of power perceived as being used by the leader were investigated. It was hypothesized that specific forms of power are gender-typed, and that leaders perceived as using gender congruent forms of power would receive higher evaluations than those perceived as using incongruent forms of power. Finally, the concept of functional leader power was developed and compared to perceived leader power.

The following chapter contains three sections: (1) a review of the research on gender differences in subordinate evaluations of female leaders; (2) an overview of perspectives on power; and (3) an integrated review and analysis of gender differences in power in organizations. A description of the present study and a discussion of the results follows.

CHAPTER I

REVIEW OF THE LITERATURE

1. GENDER AND LEADERSHIP EVALUATION

As a first step, it is important to make the distinction between actual leadership behaviors and subordinates' evaluations of their leaders' behaviors. This distinction is important since subordinates' responses to their leaders may be related more to their perceptions of their leaders' behavior than their leaders' actual behavior (cf. Calder, 1977). While males and females may not significantly differ in leadership behaviors, there may be differences between the genders in the perception and evaluation of leadership behaviors.

Male and female leaders do not appear to differ significantly on actual leadership behavior. Studies conducted in field settings have failed to find differences between the genders in leader behavior (Bartol & Wortman, 1975; Chapman & Luthans, 1975; Day & Stogdill, 1972; Doll, 1966; Lee & Alvares, 1977; Martin, 1970; Osborn & Vicars, 1976; Rice, Instone & Adams, 1984) or performance (Bowman, Wortney & Greyser, 1965; Day & Stogdill, 1972). Laboratory studies reveal somewhat more inconsistent findings; some researchers report gender effects (Eskilson & Wiley, 1976; Lockheed & Hall, 1976; Maier, 1970; Megaree, 1969; Sashkin & Maier, 1971); whereas others failed to find differences between the genders in leadership behavior (Jacobson & Effertz, 1974; Wexley & Hunt, 1974). In a recent meta-analysis of six field and two laboratory studies, Dobbins and Platz (1986) reported that male and female leaders do not appear to differ in initiating structure and consideration leadership behaviors.

Although male and female leaders may not differ in leadership behaviors, their subordinates may evaluate them differently. Researchers investigating subordinate evaluations of male and female leaders have generally reported inconsistent findings. This appears to occur in both laboratory and field settings, using evaluation criterion of

subordinate satisfaction with leadership and evaluations of leadership effectiveness. These research findings are presented in the following sections. This is followed by a discussion of possible explanations for these findings.

Laboratory Studies

Laboratory studies investigating differences between the genders in subordinate evaluation of leadership effectiveness have generally produced inconsistent results. Rosen and Jerdee (1973) used role playing simulations in a laboratory study of 134 male and 24 female undergraduate business students, and 83 male and 15 female banking supervisors attending a management institute. The role playing scenarios involved male or female supervisors using four types of supervisory styles: threat, reward, friendly-dependent, and helping. Subjects were asked to evaluate the simulated leaders by using three bipolar semantic differential scales: bad - good, improper-proper, and ineffective-effective. Contrary to their hypothesis, the researchers found that male supervisors were not rated higher than their female counterparts.

The researchers also investigated the interaction between leadership style and gender. Sex-role stereotypes were expected to influence subordinate's evaluations; females were expected to receive positive evaluations for using gender congruent helping and friendly-dependent styles, whereas males were expected to attain high ratings for using reward and threatening styles. These hypotheses were generally not supported. Females did not receive higher evaluations than males for using any of the leadership styles. Males did receive higher evaluations than females for using reward styles. Differences between the genders were not found on the other leadership styles; the friendly-dependent style was rated as more effective for supervisors of either sex when used with subordinates of the opposite sex. Evaluations of the threat and helping styles did not differ for male and female supervisors; threat was rated low and helping was rated high, regardless of the supervisor's sex.

The hypothesized relationship between leadership evaluation and gender congruency of behaviors received somewhat more support by Cohen, Bunker, Burton and McManus (1978). In a laboratory study of 90 male students, a male and a female graduate student portrayed either an autocratic and demanding or democratic and permissive leadership style. A 46-item behavioral checklist and a 19-item semantic differential scale were used to evaluate the leaders. The checklist included categories of general ability, consideration, initiating structure and feedback. Verbal comments and participant task performance were also measured. The researchers found that for female supervision only, the more traditionally incongruent the leadership style (i.e., autocratic leadership styles for females), the more unfavorable the reactions of the male subordinates to the female supervisors. However, these findings held true only for the subordinate's verbal comments, not for their task performance or written evaluations of their supervisors.

Bartol and Butterfield's (1976) initial laboratory study of 255 male and 57 female undergraduate students also supported the concept that different standards may be used to evaluate equivalent leadership behaviors. Case studies were used to manipulate leader sex and four types of leadership styles: initiative, consideration, production and tolerance. Subordinates of both sexes rated male leaders who showed initiating behaviors higher than female leaders using the same style. Alternately, female leaders exhibiting consideration behaviors received higher subordinate evaluations than their male counterparts. However, these findings were not replicated in a subsequent version of this laboratory study (Butterfield & Powell, 1981). The researchers concluded that subordinate evaluation of leader behavior was determined more by leader performance than gender.

In a laboratory study of 50 male and 50 female undergraduates, Bartol (1974) used simulated business games with same and mixed-gender groups and leaders to study the relationship between leader dominance need and subordinate satisfaction with task structure, leader action, group atmosphere, team interaction and task conceptualization.

Bartol did not find support for the view that high need for dominance among female leaders has a detrimental effect on subordinate satisfaction. In contrast, male follower groups were actually more satisfied with high need for dominance female leaders than low need for dominance female leaders in the area of satisfaction with team interaction. In another laboratory study of 50 male and 50 female undergraduates using the same methodology, Bartol (1975) found that only one dimension of satisfaction was related to leader sex. In contrast to expectations, male leaders had a negative effect while females had a mildly positive effect on satisfaction with task structure for female subordinates.

Expected gender effects were also not found in Stitt, Schmidt, Price and Kipnis' (1983) laboratory study of 678 undergraduates. Participants in this study had either a male or female group leader who engaged in either democratic or autocratic leadership styles. The dependent variables included the satisfaction with supervision subscale of the Job Description Index (JDI) (Smith, Kendall & Hulin, 1969), a 14-item leader behavior questionnaire based on influence tactics dimensions developed by the authors, and productivity measures of a simple task. The researchers found that leader sex did not have a significant influence on subordinate satisfaction or productivity, either by itself or in interaction with leadership style or follower sex.

Summary. In sum, two laboratory studies found support for the hypothesis that leader gender influences subordinate evaluations (Bartol & Butterfield, 1976; Cohen et al., 1978); three studies failed to find gender effects (Bartol, 1974; Butterfield & Powell, 1981; Stitt et al, 1983); and two other studies found gender effects for only some leader behaviors (Bartol, 1975; Rosen & Jerdee, 1973).

Field Studies

Inconsistent findings on subordinate evaluations of female leaders have also been found in field settings. Haccoun, Haccoun and Sallay (1978) found gender effects in their

field simulation study of 30 male and 30 female blue-collar workers. Their study was a partial replication of the Rosen and Jerdee (1973) laboratory study reviewed earlier. Subjects were presented a booklet describing a situation in which a male or female supervisor used one of three methods to deal with low productivity among subordinates: directive/authoritarian, analytical/rational or friendly/emotional. (As discussed earlier, Rosen and Jerdee used four styles: reward, threat, friendly-dependent, and helping, and found no main effect for leader gender and a significant interaction only with the reward style.) Five-point Likert scales were used to measure subordinate's perception of the effectiveness of each leadership style and their satisfaction with the leadership style.

In contrast to Rosen and Jerdee's (1973) laboratory findings, Haccoun, Haccoun and Sallay (1978) found that male supervisors were perceived more favorably than their female counterparts on both effectiveness and satisfaction. These findings were true for both male and female study participants. Significant interactions between leader gender and leadership style were found only with the directive/authoritarian style; females received lower evaluations than their male counterparts on both satisfaction and effectiveness measures when portrayed as using a directive/authoritarian leadership style. Males and females were evaluated equivalently when portrayed as using the friendly and analytical leadership styles. In short, while females received lower evaluations than males when portrayed as using gender-incongruent leadership styles, the reverse did not hold true; males were not penalized for using female-typed leadership styles.

One explanation for this finding is that leadership may be perceived as a predominantly male-typed phenomenon. If so, even the more stereotypically feminine forms of leadership, such as emotional support and consideration, may be more permissible for males than females. This position would hold that female-typed leadership styles may either not exist, or may exist to a lesser extent than male-typed leadership styles.

Petty and Lee (1975) found some gender-typing effects in their field study of 104 male and 61 female university staff employees. Subordinates used the Supervisory Behavior Description (SBD) (Fleishman, 1972) and the Job Descriptive Index (JDI) (Smith, Kendall & Hulin, 1969) to rate their supervisors' consideration and initiating structure behaviors, their job satisfaction, and their satisfaction with their supervisor. The researchers found that consideration displayed by female leaders correlated more highly with job satisfaction than consideration displayed by male leaders. However, similar effects were not found with subordinate satisfaction with leader behavior; both males and females received high evaluations when perceived as displaying high consideration leadership behaviors. Gender effects for initiating structure were found only in the case of male subordinates with female leaders; a significant negative relationship was found between female leaders perceived as initiating structure and job and leader satisfaction. Similar effects were not found for female subordinates with comparable female leaders or male subordinates with comparable male leaders. This study apparently concurs with Haccoun, Haccoun and Sallay's (1978) findings in supporting the notion that females may receive greater sanctions than males for engaging in gender incongruent leadership styles.

Petty and Miles (1976) found further support for the sex-role congruency hypothesis in a similar study of social service employees. Unlike other studies, their sample was predominantly female and consisted of 41 female and 10 male social service supervisors, and their 43 male and 183 female subordinates. Like the previous studies, they found that females perceived as being high in initiating structure received lower evaluations on ratings of subordinate satisfaction with leader than their male counterparts. However, unlike the previous studies, this study revealed that males may get negative responses for engaging in female-typed leader behavior; males perceived as exhibiting high consideration behavior received lower evaluations on satisfaction ratings than their female counterparts.

One criticism of the Petty and Lee (1975) and Petty and Miles (1976) studies is that they did not control for the potential confound of subordinates' demographic characteristics (i.e., age, education, tenure with supervisor, tenure with agency) (Petty & Bruning). Osborn and Vicars (1976) controlled for these demographic variables in a field study of 217 male and 74 female subordinates and 39 male and 61 female line supervisors employed in two mental health organizations. Contrary to the preceeding studies, these researchers found that leader gender did not influence measures of subordinate satisfaction, as measured by the satisfaction with supervision subscale of the Job Descriptive Index (JDI) (Smith, Kendall & Hullin, 1969).

In another large field study of 2,432 employees of a large social service agency, Petty and Bruning (1980) investigated the sex-role congruency hypothesis while controlling for subordinate demographics, job type and role stress perceptions. Like the Osborn and Vicars' (1976) study, this study found no support for the sex-role congruency hypothesis. Male and female leaders' consideration behaviors were both strongly and positively correlated with male and female subordinates' satisfaction with supervision across subgroups and job classifications. (As in the other studies, the supervision subscale of the JDI was used to measure satisfaction). Although not as strong or consistent as consideration, initiating structure was also positively related with subordinate satisfaction for both male and female leaders.

Three other field studies also failed to find differences between the genders in leadership evaluation when controlling for demographic and job variables. Adams (1978) controlled for organizational unit, job level, job responsibilities and background characteristics in a study of 406 subordinate supervisors in a large retail organization, and failed to find a gender effect when using the JDI subscale of subordinate satisfaction with supervision. Bartol and Wortman (1975), used the same subscale and also found no gender differences in their study of 60 male and 124 female civil service employees.

Terborg and Shingledecker (1983) controlled for job type, race, and tenure of subordinates in a field study of 296 female subordinates and 21 male subordinates of female leaders and 111 female subordinates and 21 male subordinates of male leaders. The researchers developed and used six items to assess general leadership effectiveness, and found no differences between the genders in subordinate evaluations of leadership effectiveness.

Job level was indirectly controlled for in Rice, Instone and Adam's (1984) two field studies of 1,652 male and female cadets; freshman and sophomore cadets were subordinates, while leaders were generally senior cadets. As with the studies cited above, these researchers found no support for the hypotheses that males would receive higher evaluations than females. Male and female leaders received equivalent evaluations on the three global items that measured leader effectiveness and on the four items that measured satisfaction with leader.

Summary. In summary, field studies on differences between the genders on subordinate evaluations of leadership effectiveness and satisfaction with leader behavior reveal somewhat inconsistent findings. Males and females were evaluated differently for using similar leader behavior in three field studies. Specifically, male leaders received higher evaluations on leadership effectiveness and satisfaction than their female counterparts in one study (Haccoun, Haccoun & Sallay, 1978), and in two other studies, female leaders perceived as using male-typed leadership styles received unfavorable evaluations on effectiveness (Haccoun, Haccoun & Sallay, 1978) and satisfaction (Petty & Miles, 1976). In one case, this effect was found only with male subordinates of female leaders (Petty & Lee, 1975). Male leaders perceived as using female-typed leadership behaviors did not receive negative evaluations in one study (Petty & Lee, 1975), but did receive them in another (Petty & Miles, 1976).

However, six studies controlling for job level, job responsibility, and demographic variables generally failed to find differences between the genders in subordinate satisfaction

with leader (Adams, 1978; Bartol & Wortman, 1975; Osborn & Vicars, 1976; Petty & Bruning, 1980; Rice, Instone & Adams, 1984) or evaluation of leader effectiveness (Rice, Instone & Adams, 1984; Terborg & Shingledecker, 1983). One possible explanation for these findings is that by controlling for job and organizational level, these researchers inadvertently controlled for position power and differences between the genders in power. This issue will be discussed at greater length in later sections.

Explanations for Findings

Osborn and Vicars (1976) hypothesized that the research setting chosen may be responsible for the inconsistent findings on subordinate evaluations of female leaders. They maintained that research conducted in laboratory settings was more likely to result in significant gender differences than research conducted in field settings. Artificial, short-term laboratory situations were hypothesized to elicit subject responses based on readily available sex-role stereotypes; whereas the real-life, long-term field settings were believed to lead to more interpersonal contact and more realistic evaluations.

This conclusion was also reached by Dobbins and Platz (1986) in their recent meta-analysis of gender differences in leadership. In a meta-analysis of 11 studies of subordinate evaluation of leader effectiveness, the researchers found that male leaders were rated as more effective than female leaders. To determine what produced this effect, the researchers divided the 11 studies into field and laboratory classifications, and reportedly conducted separate meta-analyses on the two groups. They concluded that male leaders were evaluated as more effective than female leaders in laboratory settings, but that leader gender did not influence effectiveness in field settings. Dobbins and Platz (1986) reached the same conclusion that Osborn and Vicars (1976) reached nearly ten years earlier in their review; that laboratory settings may be more likely than field settings to elicit sex-role stereotypes and prototypes that create differences between the genders in subordinate evaluations.

However, a review of the studies used in their meta-analyses revealed that the laboratory subgroup consisted of ten studies, while the field subgroup consisted of one study (Table 1 pp. 121-123). The validity of using meta-analysis with a $n=1$ is open to serious question. It is clear that more field studies need to be included in their analyses to obtain a clear comparison of laboratory and field effects with respect to subordinate evaluations of leader effectiveness. Their separate meta-analysis of seven studies of subordinate satisfaction with leaders indicated that satisfaction did not differ as a function of leader gender. A closer examination of these studies reveals that of the seven studies used in the meta-analysis, four were conducted in the field. This sample represents a more balanced ratio of laboratory and field studies, and yet differences between the genders in evaluations were not found. Dobbins and Platz concluded from their analysis that leader gender, in itself, may not fully explain gender differences in leadership evaluations of leadership effectiveness. They contend that the perceptual processes associated with gender that may be more relevant for explaining gender differences in leadership behavior and call for research on processes through which sex stereotypes bias evaluations of leaders.

In light of the methodological problems with Dobbins and Platz's (1986) meta-analysis, it is difficult to support their view that the inconsistent findings in this area are purely a function of the research setting. Indeed, the preceding review of the literature in this study indicates that field studies are nearly as likely as laboratory studies to obtain inconsistent findings. However, this review also reveals that gender differences in leadership evaluations dissipates when researchers control for job level and type (e.g., Adams, 1978; Petty & Bruning, 1980; Rice, Instone & Adams, 1984; Terborg & Shingledecker, 1983). Since organizational rank is linearly related to power in organizations (Halaby, 1977; Roberts, 1985; Tannenbaum, 1968), by controlling for job level, these researchers may be implicitly controlling for leaders' positional power. Since

women are generally concentrated in lower levels of organizations (Miner, 1974; U.S. Department of Labor, 1979; 1984), and in positions with little positional power (Harlan & Weiss, 1982; Hill, 1980; Kanter, 1977a; Wolf & Fligstein, 1979), a comparison of male and female leaders in field settings that do not control for organizational level may essentially boil down to a comparison of high power leaders and low power leaders. Differences between the genders in leadership evaluations may therefore reflect real differences in organizational power.

This position does not necessarily disagree with the view that sex-role stereotypes and expectations influence subordinate evaluations of leaders, or that the research setting may influence this evaluation process. However, these explanations may be insufficient to explain the perceptual processes involved with evaluations of female leaders. In light of the fact that perceived power has been found to be positively related to evaluations of leader effectiveness (Pelz, 1952; Wager, 1965), but generally lacking among females in organizations (Harlan & Weiss, 1982; Hill, 1980; Kanter, 1977a; Wolf & Fligstein, 1979), it is certainly reasonable to assume that perceived power plays some role in the evaluation of female leaders. This study attempts to understand the role played by perceived power in subordinate evaluations of leader effectiveness.

2. POWER PERSPECTIVES AND PROCESSES

A review of the literature on gender differences in power initially requires an overview of definitions of power. Perspectives on power and power processes are presented. A typology of definitions of power follows.

Perspectives on Power

Power is a construct that has evolved and changed over the last forty years. Initial conceptualizations of power were presented by political scientists and sociologists. More recent views of power have been offered by social psychologists and organizational

behaviorists. Each of these disciplines has contributed a different perspective to the evolving concept of power. These approaches can be combined into three perspectives on power: individual, interpersonal and organizational (cf. Ragins & Sundstrom, 1987).

Individual Perspectives on Power. Early conceptualizations of power, which were based on political science and sociology, viewed power as the ability to influence others (Etzioni, 1961), or the ability to directly and forcefully change another's behavior (Dahl, 1957; Weber, 1947). Implicit in these definitions is the view that power is a personality trait or an acquired skill. For example, one may speak of a "powerful person", or a "power-breaker". Political figures, in particular, characterize this definitional approach.

Interpersonal Perspectives on Power. A more recent definition of power is that an individual only has power with respect to other individuals in a specific social relationship. Sociologists and social psychologists have viewed power as an aspect of interactions in social relationships (Cartwright, 1959; French & Raven, 1959). Power has also been viewed as a reciprocal influence process between an agent and a target person (Dansereau, Graen & Haga, 1975; Yukl, 1981) that involves a net dependency (Blau, 1964; Emerson, 1962; Kotter, 1978). The focus in this perspective is on the dyadic process of social influence, rather than on the ability of one person to influence another.

Organizational Perspectives on Power. Current organizational theorists define power as the capacity to affect organizational outcomes and goals (Mintzberg, 1983; Salancik & Pfeffer, 1974; 1977), and as a structural phenomenon created by the organization's division of labor and departmentation (Pfeffer, 1981). Pfeffer (1981) suggests that power characterizes relationships among social actors, but that a social actor can be defined as an individual, a subunit, or an entire organization.

The roots of the organizational perspective can be traced back to Russell's (1938) view of power as the production of intended effects. Mechanic (1962) built upon this view

by conceptualizing power as a force inherent in the normative structure of the organization. According to Mechanic, power results from access to and control over persons, information and instrumentalities. This "functional" view of power was later expanded on by Kanter (1977a), who described power as "the ability to get things done, to mobilize resources, to get and use whatever it is that a person needs for the goals he or she is attempting to meet. " (p. 166).

The organizational perspective expands the individual's arena of influence to include organizational, as well as interpersonal processes. Moreover, this perspective views power as a means to an end; power is viewed as functional or instrumental in accruing organizational resources needed to meet specified goals.

Power Processes

Power can be seen as a sequence involving three processes: the accumulation of resources for power, the actual influence process, and the outcomes or ends achieved (Roberts, 1984).

Determinants of Power. Power theorists have distinguished between potential power, or the capacity to exert influence, and actual power, or the explicit attempt to influence another (Katz & Kahn, 1978, Provan, 1980; Nagel, 1975; Wrong, 1968). Conceivably, power does not have to be enacted for it to exist; it can be a potential or unmobilized resource (Gamson, 1968). A resource-development perspective on power would hold that individuals may accumulate resources for power from a position in an organization, a specific interpersonal relationship, or a specific skill or personal quality (Ragins & Sundstrom, 1987).

Means of Power. The target may have certain perceptions and attributions about the agent's resources for power, behaviors, and outcomes. These perceptions and attributions may be directly linked to the actual influence process (Kaplowitz, 1978; Nagel, 1975;

Provan, 1980). An individual may therefore gain influence over a target by either direct influence attempts, or by the target's attribution of power to the individual. The individual would therefore not necessarily require even potential power to influence the target; the target's perceptions of power may be a sufficient condition for influence to occur. This perspective would hold that cognitive processes influencing the target's perceptions and attributions would also have an impact on the power process.

Consequences of Power. Power has frequently been defined by its consequences; as the production of intended effects (Russell, 1938), the ability to attain goals (Kanter, 1977a) or outcomes (Salancik & Pfeffer, 1977). Consequences may provide perceptual cues for the target and facilitate power attributions. However, from a research perspective, inferring power from its consequences may be problematic. Provan (1980) notes that researchers may lack the basis for assuming that power is actually responsible for organizational outcomes. Indeed, using a systems perspective (Katz & Kahn, 1978), many factors may be related to a given outcome. To determine whether power is actually responsible for a given outcome requires identification and control over extraneous factors. A second problem is that if an expected outcome does not occur, researchers may assume that an individual may not have power, when in fact the individual may have potential power but may choose not to enact it over the variables studied.

A Typology of Definitions of Power

The construct of power is complex and multi-faceted. It has almost as many definitions as researchers studying it. Each of the definitions offers some insight into the construct. As discussed above, the definitions of power can be classified as being derived from an individual, an interpersonal, or an organizational perspective. Power may also be conceptualized as a sequential process involving determinants, means and outcomes. Most

of the definitions of power focus on one of these processes. As illustrated in Figure 1, these three perspectives and three processes can be developed into a 3 X 3 typology of power.

The typology provides a method to classify the existing definitions of power according to their primary perspectives and processes. Based on the typology, it appears that most of the definitions that are based on an individual perspective of power deal primarily with the determinants or potential for power, such as the ability or capacity of one individual to influence another. Definitions based on an interpersonal perspective tend to focus primarily on the means or the actual implementation of power, such as perceptions or attributions of power in a dependency relationship. Finally, definitions based on an organizational perspective appear to rely on outcomes of power, such as the attainment of goals and intended effects.

In this study subordinates' perceptions' of male and female leaders' power are investigated. The nature of this investigation therefore calls for an interpersonal perspective on power. However, organizational and individual perspectives may also be used to explain gender differences in leader power. The following section includes a review of the research on differences between the genders in power from an organizational, interpersonal and individual perspective.

Power Process	Perspective		
	Individual	Interpersonal	Organizational
Determinants	Ability to influence Etzioni (1961) Dahl (1957) Weber (1947) Individual Resources Ragins & Sundstrom (1987)	Perceived Potential Gamson (1968) Interpersonal Resources Ragins & Sundstrom (1987)	Organizational Sources Roberts (1984) Organizational Resources Ragins & Sundstrom (1987)
Means	Foster Dependency Emerson (1962) Blau (1964) Kotter (1978)	Power Attributions Kaplowitz (1978) Nagel (1975) Social Interaction French & Raven (1959) Cartwright (1959) Dansereau, Graen & Haga (1975) Yukl (1981)	Organizational Dependency Kotter (1978) Organizational Means Roberts (1984)
Outcomes			Functional/ Goal Attainment Russell (1938) Mechanic (1962) Salancik & Pfeffer (1974;1977) Kanter (1977) Mintzberg (1983) Roberts (1984)

Figure 1. Typology of Power

3. DIFFERENCES BETWEEN THE GENDERS IN POWER IN ORGANIZATIONS

Gender differences in power in organizations have been fairly well documented (cf. review by Ragins & Sundstrom, 1987). Compared with men, women are less frequently found in positions of power (Kanter, 1977a; Hansen, 1974; Halaby, 1977; Hill, 1980; Harlan & Weiss, 1982; Wolf & Fligstein, 1979) and are generally concentrated in lower levels of the organization (Miner, 1974; U.S. Department of Labor, 1979; 1984). Women are infrequently found in upper-level, powerful managerial positions (e.g., Brown, 1979; Dexter, 1985; Finkelstein, 1981; Gordon & Strober, 1975; Terborg, 1977; Treiman & Hartman, 1981; Wallace, 1982), and are disproportionately employed in female-typed staff support departments (Lyle & Ross, 1973; Major & Konar, 1984; Treiman & Hartman, 1981; U.S. Department of Labor, 1979) which typically have less power than the predominantly male production departments (Davis, 1951; Massie, 1965; Smith & Grenier, 1982; Wright, 1982).

Research on differences between the genders in power in organizations can generally be classified as falling into one of three areas: organizational, interpersonal and individual. Factors in each of these areas may influence the development and use of female leaders' power in the leader-subordinate relationship. The following sections contain a brief overview of the more relevant findings on organizational and individual factors. This is followed by an in-depth review of the research on power, gender, and the leader-subordinate interpersonal relationship.

Organizational Factors

Organizational policies and practices involving hiring, selection, and promotion may contribute to differences between the genders in power. Compared to men, equally qualified women have been found to receive fewer job offers, lower salaries, and are seen as less desirable for managerial positions (Bowman, Wortney & Greyser, 1965; Cohen &

Bunker, 1975; Dipboye, Fromkin & Wiback, 1975; Rosen & Jerdee, 1974a, b; Terborg, 1977; Terborg & Ilgen, 1975). Interviewers have been found to give lower evaluations to females applying for male-typed positions (Cohen & Bunker, 1975; Rosen & Jerdee, 1974a), or positions that involve supervising men (Rose & Andiappan, 1978). Moreover, these results appear to hold for both male and female interviewers (Dipboye, Fromkin & Wiback, 1975; Dipboye, Arvey & Terpstra, 1977).

Promotion and Power. Women have been found in some studies to be promoted at lower rates than men (Roussell, 1974; Rossi, 1970), and have reported less satisfaction with opportunities for promotion (Herman & Gyllstrom, 1977; Hulin & Smith, 1964). Although women have less tenure in organizations, on average, than men (Smith, 1979), gender has been found to be a better predictor of rank than tenure (Astin & Bayer, 1972; Stewart & Gudykunst, 1982), and only half of the variability in rank associated with gender can be explained by such factors as experience and education (Malkiel & Malkiel, 1973).

Promotions may have different implications for power among men than among women. Flanders and Anderson (1973) found that women needed a greater number of promotions than men did to reach the same organizational rank, and concluded that promotion may serve as a way to pacify women without giving them real power. Other studies have found that women may receive more promotions than their male counterparts, but may not advance as far in the organizational hierarchy (Stewart & Gudykunst, 1982; Tsui & Gutek, 1984).

Positional Power. Even if women reach high ranking positions in organizations, they are less likely than their male counterparts to attain the associated positional power. A key investigation of gender differences in authority was conducted by Wolf and Fligstein (1979). Authority was defined as the perceived amount of control over other individuals in

the workplace. The researchers used questionnaire and interview data from 3,359 male and 2,254 female employees, and looked at whether differences in authority were best predicted by womens' qualifications, their attitudes and behaviors, or the behaviors and policies of employers. They found that women had less authority than men, and that the employer's behaviors and policies were the best predictors of differences between the genders in position power. Moreover, men were more likely than women to obtain the authority associated with their positions. Male-labelled positions, and even gender-neutral positions, were found to have more authority than female-labelled positions. Finally, low-power positions had less gender differences in authority than high-power positions.

Other researchers have found similar results. Hill (1980), in a survey of 2,723 male and 2,166 female employees, found that men were more likely than women to have authority at work; one quarter of the men had authority over others' pay and promotions, whereas only one-tenth of the female employees surveyed were in similar positions of authority.

Kanter (1977a), in an in-depth study of a single organization, also found differences between the genders in positional power. Three sources of power were found to be less available to women than men: (1) supplies -- having the access to materials, money, and resources needed to meet the department's goals and reward its members; (2) information -- having access to and use of information within the organization; and (3) support -- having the opportunity to make autonomous decisions with the assurance that instrumental individuals will support them.

Harlan and Weiss (1982) attempted to replicate Kanter's findings in a field study of 100 male and female managers from two large corporations. The researchers generally found males to have more positional power than their female counterparts. Strober (1982) also found differences between the genders in positional power in a four-year longitudinal

study of 150 male and 26 female M.B.A. students. The females in this study reported that they did not have the same power as their male counterparts to approve high-level expenditures.

In sum, female leaders may be less likely than their male counterparts to gain promotions to powerful positions or to obtain the power associated with a position. Differences between the genders in promotions and positional power may have implications for the leader - subordinate relationship and the ability of the leader to provide for the subordinate's needs. These implications are discussed in the interpersonal section.

Individual Factors

Individual factors, such as need for power or power styles, may directly impact the leader-subordinate relationship. Differences between the genders in such individual characteristics may, in turn, influence gender differences in the leader-subordinate relationship.

Need for Power. Need for power is defined as the need to exert influence over the actions of others (McClelland, 1975). Need for power has been found to be closely related to managerial success (Kotter, 1978; McClelland & Burnham, 1976), and has been found to differentiate executives from non-executives (Morrison & Sebold, 1974).

Research findings in both field and laboratory settings generally concur that males and females do not differ on their need for power (Armstrong, 1979; Crew, 1982; Harlan & Weiss, 1982; Stewart & Winter, 1976). However, one study found male teachers reported higher need for power than female teachers (Harris & Smith, 1976), and another study found that female managers expressed greater need for power than their male counterparts (Chusmir, 1981).

Differences between the genders in types of need for power were found in Chusmir and Parker's (1984) field study of 124 managers. The researchers found that female

managers expressed a higher need for "socialized power" than their male counterparts, but no difference for "personalized power". Socialized power was defined as power that was beneficial to the organization, whereas personalized power was beneficial to the individual. The researchers concluded that female managers may bring more useful power motives to their jobs than male managers.

While women and men may not differ in their need to express power, they may differ in their ability to do so. Sex-role expectations may limit female leaders' choices for power-related behaviors (e.g., Dexter, 1985). Moreover, since women have less position power than men in organizations (Harlan & Weiss, 1982; Hill, 1980; Kanter, 1977a; Wolf & Fligstein, 1979), they may have fewer outlets for expressing their power needs. Consequentially, they may either suppress their need for power, or may channel their needs into behaviors congruent with sex-role stereotypes. Because female sex-role stereotypes are antithetical to power (Broverman, Vogel, Broverman, Clarkson & Rosenkrantz, 1972; Frieze, Parsons, Johnson, Ruble & Zellman, 1978), women using power may have to resort to covert, indirect and manipulative ways. The problem here is that indirect and manipulative uses of power may not be optimally effective for gaining a recognized base of power in organizations. In short, being the "power behind the throne" may preclude ever getting on it.

Power Styles. Although some researchers contend that males and females differ in the types of power styles used (McClelland, 1975), few studies have directly investigated gender differences in power-related behaviors or power styles (cf. review by Van Wagner & Swanson, 1979).

Laboratory studies on group processes provide somewhat mixed findings on differences between the genders in power behaviors. Compared to all-female groups, all-male groups have been found to be more verbally active (Aries, 1976), have a stronger relationship between expertise and social power (Richardson, Dugan, Gray & Mayhaw,

1973), and use more dimensions of power in their influence attempts (Gray, Mayhew & Campbell, 1974). Men have been found in laboratory settings to be more likely than women to exert influence over others and reported feeling more comfortable in exercising power over subordinates (Ayers-Nachamkin, Cann, Reed & Horne, 1982). Differences between the genders in power styles were also found in Morgan's (1978) laboratory simulation study of 126 undergraduates; males tended to use influence tactics that were threatening and coercive, whereas females tended to rely upon reward, rational discussion and verbal confrontation as their primary methods of influence. However, Michener and Swertfeger (1972) found no differences between males and females in their preference for the use of coercive bases of power.

Field studies also reveal divergent findings. Differences between male and female manager's career tactics used for gaining power were found among 194 male and female executives in 14 corporations; females were more likely than males to report using role-models, contacts with other females, and attempts to appear feminine (Larwood, Radford & Berger, 1981). In other study of 40 male and female managers, Maineiro (1984) investigated responses to powerlessness and found that males were more likely to use coercive strategies, such as threats. Females, on the other hand, were more likely to be resigned to their powerlessness and to make concessions.

Other field studies, however, have found no differences between the genders. Kipnis, Schmidt and Wilkinson (1980), in two studies of behaviors reportedly exhibited by male and female managers, found no gender differences in the choice of influence tactics. Donnell and Hall (1980) also found no differences on trait and behavioral variables. This study is a key investigation in that it is one of the few field studies that included measures other than self-report. The study also used a matched sample of 950 female and 966 male managers, which may have controlled for some differences between the genders in positional power. The researchers used the sample in five studies of gender differences in

trait and behavioral variables. In a matched subset of the sample, they found no differences between the genders in managerial style, as measured by their management of the organization's technical and human resources. In another subset of 320 subordinates of 119 female managers and 334 subordinates of 119 male managers, the researchers also found no differences between the genders in subordinate perceptions of managerial styles. Similarly, there were no differences between the genders in subordinate perceptions of manager "interpersonal practices". Male and female managers also tended to use participatory methods to a similar degree and to obtain similar levels of motivation among their subordinates.

These findings agree with research that indicates no differences between male and female supervisors in methods of rewarding and punishing subordinates (Baker, DiMarco & Scott, 1975), but disagree with other research indicating that females tend to use more participative management methods (Eisenberg & Lennon, 1983; Josefowitz, 1980) and more receptive and encouraging communication styles (Baird & Bradley, 1979).

Summary. In summary, several studies suggest that females and males may adopt different power styles. However, many of these studies were either conducted in laboratory settings or used self-report data. Other field studies failed to control for differences in organizational level and position power. The one study that used matched samples and nonself-report data found no behavioral differences between male and female managers. However, this study addressed managerial styles rather than power styles or power-related behaviors. In short, there is a lack of field research investigating differences between the genders in power behaviors or styles.

Interpretation of research on differences between the genders in power styles may be problematic for at least two reasons. First, having a power behavior in one's behavioral

repertoire does not guarantee effective or appropriate use of that behavior. Managerial or leadership effectiveness may be determined by a constellation of factors, and power may be only part of that picture.

Second, behavioral differences between the genders may reflect situational factors and role-expectations rather than gender differences in individual characteristics. Deaux (1984) observes that while the behavioral repertoire of males and females may be equivalent, the choice of behaviors may differ for a given situation. Situational demands in the organization have been found to influence individuals' choice of power styles and tactics (Cheng, 1983). Female leaders' choice of power styles may represent a functional response to the demands of the situation. The choice of power related behaviors may be influenced by sex-role stereotypes and attributions (Dexter, 1985; Polk, 1974). Since women are expected to use only limited forms of power (Johnson, 1976; Wiley & Eskilson, 1982), power styles that work for males may be counterproductive for females (Van Wagner & Swanson, 1979). In short, female leaders may be in the position of having to choose power styles and behaviors that are most effective for their gender, but least effective for their situation.

Profiles of Successful Female Executives. Profiles of successful female executives is a line of research that may lend some insights into the types of power styles used by women who have reached powerful positions in organizations.

Hennig and Jardim (1977) interviewed 25 female presidents and vice - presidents of medium to large corporations who entered the job market in the 1930's. The female executives reported that they developed expert power early in their careers by focusing on the development of skills and job competency. As their careers progressed, the executives reported an increase in their interpersonal skills. The top-level female executives were

compared to a matched group of female middle managers. The researchers found that the female executives were more likely than the female middle managers to develop interpersonal skills and relationships.

Keown and Keown (1982) investigated power and leadership styles held by 21 female executives and vice-presidents who entered the job market in the 1960's. Among the factors reported as being important for their job success included: being more intelligent than their male peers, job competence and the development of good working relationships. The executives reported that their subordinates responded to their leadership primarily because of their expert power, and that legitimate and reward power bases were used as back-ups to expert power. The female executives also reported that they relied more upon participatory, relationship - oriented leadership styles than authoritarian, task-oriented styles.

A third profile study involved 107 female corporate vice-presidents of 64 Fortune 500 companies (Kane, Parsons & Associates). The female executives in this study, as in others (Hennig & Jardim, 1977; Keown & Keown, 1982), reported that interpersonal skills were the key ingredient for success in the corporate world. Interestingly, only 36% of the executives in this sample rated skill at playing corporate politics as being essential to success in the corporate world; 55% rated politics as being useful, but not essential. Almost a third of the sample reported that they were more competent than their male peers. The most common advice given by the female executives for women starting on a business career was to develop skills, credentials and other forms of expert power.

At least three conclusions may be drawn from these studies. First, the successful female executives studied tended to rely upon personal rather than positional forms of power. This makes sense given that females have equivalent needs for power as their male counterparts (Armstrong, 1979; Crew, 1982; Harlan & Weiss, 1982; Stewart & Winter, 1976), but may be less likely to attain the power associated with their positions (Hill,

1980; Kanter, 1977a; Wolf & Fligstein, 1979). They may therefore compensate for a lack of position power by building on interpersonal relationships and personal forms of power.

Second, all three studies found that female executives relied upon and valued expert power bases. This is a particularly interesting finding, given that expert power is a key power base for organizational effectiveness (Backman, Bowers & Marcus, 1968).

Moreover, of French and Raven's (1959) five forms of power, expert power is most under the control of the individual. Reward, coercive, and legitimate power are all associated with a position, and may therefore be limited for women. Female leaders may also lack control over referent power, since it relies on the subordinate's identification with the leader. Subordinates with same-gender leaders may be more likely to identify with their leaders, and perceive their leaders as having referent power, than subordinates with opposite-gender leaders. The scarcity of professional female subordinates at upper-levels of the organization (U.S. Department of Labor, 1984) may therefore restrict the use of referent power by female executives.

Female leaders have control over the skills and training necessary to develop expert power. Moreover, given the organizational barriers to advancement discussed earlier, females may need to be more qualified than their male counterparts to obtain the same position in an organization. If so, subordinates may accurately perceive their female leaders as having greater expertise than their male counterparts, and may be more likely to respond to their expert power. This response may in turn increase the probability of female leaders reliance upon expert power.

The third conclusion that may be drawn from these studies is that female executives appear to rely upon different power bases at different points in their careers. In early career stages, the executives relied primarily upon expert power. As they advanced within the organizations, they reported spending more attention on building interpersonal skills,

relationships and power bases. This suggests that successful female executives may sequentially rely upon different power bases at different career stages, and that expert power may be an attainable, solid foundation for other power bases.

Interpersonal Perceptions

This section investigates the relationship between interpersonal perceptions involving sex-role stereotypes, leadership prototypes and attributions and perceptions of female leaders' power.

Stereotypes. Power, as a perception, may be influenced by other perceptual processes (e.g., Gamson, 1968; Katz & Kahn, 1978; Kaplowitz, 1978; Provan, 1980; Wrong, 1968). Stereotyping is a perceptual process that may be particularly important for the perception of power among female leaders. Stereotypes are sets of characteristics ascribed to the members of identifiable groups (Deaux & Wrightsman, 1984). Female stereotypes tend to include such traits as dependency, submission, nurturance, and gentleness. In contrast, male stereotypes include such traits as forcefulness, dominance, independence, ambition, and competitiveness (e.g., Broverman, Vogel, Broverman, Clarkson & Rosenkrantz, 1972; Rosenkrantz, Vogel, Bee, Broverman & Broverman, 1968). Stereotypically masculine traits have been found to be more socially desirable than stereotypically feminine ones (Broverman, Broverman, Clarkson, Rosenkrantz & Vogel, 1970; Broverman et al., 1972).

Sex-role stereotypes imply that power is a male phenomena -- to be male is to be powerful, and vice versa (cf. Ragins & Sundstrom, 1987). If so, the concept of a "powerful woman" is a contradiction in terms. To be feminine according to sex-role stereotypes requires that women possess traits that may be antithetical to the concept of power.

The incompatibility of femininity and power may result in a double-bind for women in male-typed positions of power. Women in powerful positions may face a conflicting set of role expectations (O'Leary, 1974). Successful managers are perceived by managers of both sexes as possessing characteristics, attitudes, and temperaments more commonly ascribed to men than women (Schein, 1973; 1975). This may result in a double-bind for female leaders. If a female leader "displays the culturally defined traits of a woman, she is rejected as an unacceptable manager. If she acts according to the male defined role of a leader, she is condemned as being unfeminine" (Putnam & Heinen, 1976 p. 48).

Stereotypes may have an adverse effect on female leaders' relationships with their subordinates. In the study by Bowman, Wortney & Greyser (1965), male executives reported that they would feel uncomfortable with a female boss. Bass, Krussell and Alexander (1971) found similar results in their study of 174 businessmen who believed that women would not make good supervisors. This belief did not reflect the perception of women as being less capable than men, but a feeling of discomfort with a female supervisor, and the belief that other subordinates would feel the same way. A recent study by Harlan and Weiss (1982) revealed that male managers preferred male supervisors, and reported that it was an "insult to their intelligence" to be supervised by a woman. These attitudes appear to be resilient; a longitudinal study of 665 male and female MBA students over an eight year period revealed that males not only had more negative attitudes towards women in management than females, but that those attitudes did not significantly change over time (Dubno, 1985).

Prototypes. Prototypes may be defined as mental images that are representative of "cognitive categories" that define behaviors expected of someone in a particular position or role (see Rosch, 1978). Actual behavior is compared to the prototype to evaluate the individual's behavior (Feldman, 1981).

"Leadership prototypes" and "implicit theories of leadership" may influence leadership expectations and evaluations (Lord, Foti & Phillips, 1982; Phillips & Lord, 1982; Rush, Thomas & Lord, 1977). Given that powerful positions are primarily held by men, and tend to be gender-typed as male (Schein, 1973, 1975), it is reasonable to suspect that leadership prototypes may contain stereotypically masculine characteristics and traits (e.g., Ashmore & Del Boca, 1979). If so, female leaders evaluated on the basis of leadership prototypes may receive lower evaluations than their male counterparts.

Attributions. Attributions are perceived causes for behavior or performance (cf., Heider, 1958; Kelley, 1967; Weiner, Frieze, Kukla, Reed, Rest & Rosenbaum, 1972). Attributions may be important for expectations about performance. If successful performance is attributed to internal and stable causes --such as ability - -similar performance may be expected in the future. If, however, the successful performance is attributed to external and unstable causes --such as luck -- similar performance is unlikely to be seen as repeatable (Weiner et al., 1972).

Gender differences in attributions are fairly well documented. Relative to men, women use more external attributions for their success, and internal attributions for their failures (Bar-Tal & Frieze, 1977; Feather, 1969; Frieze, 1975; Simon & Feather, 1973). Observers have also been found to make similar gender-based attributions; successful performance by women tends to be attributed to effort and luck; whereas success by men is attributed to skill and ability (Cash, Gillen & Burns, 1977; Deaux & Emswiller, 1974; Etaugh & Brown, 1975; Feather & Simon, 1975; Taynor & Deaux, 1973).

The perception of power may partially depend upon perceived skill and ability (French & Raven, 1959). Kanter (1977a) suggests that power depends on "recognized competence". If so, perceptions of power may be aligned and influenced by attributions for success and failure. This relationship may be reciprocal; causal attributions may influence the perception of an individual's power, and power attributions may be made in

the attempt to understand the basis for an individual's power. For example, if a female leader is perceived as attaining her position on the basis of affirmative action (i.e., external causal attribution), she may not be perceived as having expert or referent power, and may even be perceived as lacking the authority that goes with the position. In another case, a subordinate may perceive a female leader as having power over him/her. However, when asked why he or she is influenced by the female leader (e.g., power attributions), the subordinate may make external attributions for the leader's success by attributing her power to her position.

In short, attributions may be both an antecedent and consequence of perceived power. Although there is a general lack of research in this area, Wiley and Eskilson (1983) found a relationship between causal attributions for promotion and perceived power in their laboratory study of 76 male and female students; attributions of promotions to the individual's ability were correlated with evaluations of power and responsibility.

If attributions interact with perceived power, then gender differences in perceived power may be influenced by differences in causal attributions. In this case, external attributions for a female leader's success may limit perceptions of her power, and her power, in turn, may be attributed to external causes. These attributions may also be held by the female leader. If so, a female leader may attribute her success to external factors (e.g., luck), rather than internal factors that are more aligned with personal forms of power (e.g., ability/expert power). Moreover, she may also be more likely to attribute her power to external than internal causes, thus limiting her perceptions of her own power.

Summary. In sum, stereotypes, prototypes and attributions are perceptual processes that may influence perceived power. Gender may interact with these perceptual processes to distort perceptions of power for female leaders. Stereotypes, prototypes and attributions may influence expectations and evaluations of female leaders. Because of these perceptual processes, female leaders in powerful positions may not be perceived or

expected to be powerful. Females in powerful positions may also receive negative evaluations if they are perceived as violating sex-role expectations and leadership prototypes.

Power and the Leader-Subordinate Relationship

In this section the relationships among leader power, leader effectiveness and subordinate-leader relationships are explored.

Subordinates' Contributions to Leader Power. Subordinates may represent an important source of power for leaders in organizations in at least two ways. First, they may provide a loyal and dependable base of support for the leader. Limited support for this concept is provided by Robert's (1985) field study of 350 managers at four organizations. Roberts found a positive correlation between managers' dependence on subordinates and their organizational power. The researcher reasoned that by being able to trust and rely upon subordinates, managers may be able to direct their attention to power-related behaviors. Additionally, subordinates may increase their leaders' power by acting as a power coalition.

The second way subordinates may influence leaders' power is by their acceptance of leaders' attempts to influence. Several theorists maintain that acceptance by subordinates is essentially a prerequisite of leader power (e.g., Barnard, 1938; Blackburn, 1981; Blau, 1959, 1964; Dansereau, Graen & Haga, 1975; Mechanic, 1962; Mowday, 1978; Weick, 1969). This line of reasoning holds that a leader may have the potential for power, and may attempt to use it, but will not obtain the desired consequences unless the subordinate recognizes and accepts the attempts to influence.

Leaders' Contribution to Subordinate Power. The leader-subordinate relationship may be viewed as reciprocal with respect to the development of power. Leaders may gain power from their subordinates by subordinate acceptance, loyalty and support. However,

subordinates may also gain power from their leaders. Leaders may grant subordinates job autonomy and may serve as mentors in the promotion of their subordinates' careers (see Kram, 1985; see also Graddick, 1984; McIlhone, 1984; Ragins, 1987). Additionally, as the leader rises within an organization and accumulates resources for power, his or her subordinate may also gain "coat-tail" benefits; they may gain control over resources for power and may attain access to powerful coalitions and networks within the organization. These coalitions and networks may, in turn, provide the subordinates with even more resources for power (e.g., Brass, 1985; Cobb, 1980). In turn, the subordinate may re-direct some of these resources for power back to the leader, thus increasing the leader's power and completing the cycle.

Power may therefore be seen as an upwardly spiralling function (Ragins & Sundstrom, 1987). The more resources for power the leader has, the more resources he or she can pass along to the subordinate. The more power the subordinate gains, the greater the opportunity for the subordinate to build on that power from other sources, and provide the leader with even more resources for power. In this sense, power begets power in the leader-subordinate relationship.

Perceived Power, Functional Power and Leader Effectiveness. Powerful leaders may be perceived by their subordinates as more effective than powerless leaders. Likert (1961) observes: "To function effectively, a supervisor must have sufficient influence with his own superior to be able to affect the superior's decisions. Subordinates expect their supervisors to be able to exercise an influence upward in dealing with problems on the job and in handling problems which affect them and their well being " (p 157).

Supervisors' upward influence has been found to be related to subordinate satisfaction and morale. Pelz (1952) , in an early field study, found that leaders' human relations skills were insufficient for producing high subordinate morale; morale was found to be positively related with supervisors' upward influence and impact on decision-making

processes. Other researchers have also found leaders' upward influence to moderate the relationship between leader behavior and subordinate satisfaction (Fulk & Wendler, 1982; House, Filley & Gujarati, 1971; Jablin, 1979; Wager, 1965). Jones, James and Bruni (1975) found a positive relationship between the subordinate's trust and confidence in the supervisor and the supervisor's success in interactions with his or her superiors. House, Filley and Gujarati (1971) discovered a curvilinear relationship between upward influence and subordinate's trust and satisfaction with the leaders; leaders who have too much upward influence and power may be seen as unapproachable by the subordinate. Other researchers have found that supervisors' ability to affect subordinates' career progression was positively related to subordinates' trust in their supervisors and desire for interaction with their supervisors (O'Reilly & Roberts, 1974; Roberts & O'Reilly, 1974).

House and Mitchell's (1974) Path-Goal Theory of Leadership provides a theoretical explanation for the relationships between perceived power and subordinate evaluations of leader effectiveness. Path-Goal theory predicts that subordinate evaluations of leaders are based upon the leader's ability to provide for their needs (e.g., Evans, 1970; House, 1971; House & Dessler, 1974; House & Mitchell, 1974). The theory holds that leaders motivate their subordinates by removing roadblocks to the subordinate's goal attainment, providing resource support, and securing contingent rewards for effective performance. Powerful leaders may be able to provide organizational rewards and resources for their subordinates. Moreover, leaders with upward influence may also be able to get their superiors to provide rewards and resources for their subordinates.

Using a Path-Goal framework, it can be hypothesized that a subordinate's evaluation of a leader's effectiveness is based upon the subordinate's perception that the leader has the specific types of power necessary to meet the subordinate's needs. This implies that although the leader may be perceived as having many different types of power, the leader may be perceived as being effective only if he or she is perceived as having the

specific types of power necessary to provide for the subordinate's needs. A distinction is therefore made in this study between *perceived power* and *functional power*.

Functional power requires the subordinate to evaluate the leader's use of power on the basis of whether it fills his or her needs. In this sense, functional power may be an individual phenomenon; the type of leader power that may be functional for meeting the needs of one subordinate may or may not be functional for meeting the needs of another subordinate. Along those same lines, two subordinates may both perceive a leader as having a specific type of power, but may disagree on whether the leader uses his or her power for their benefit. For example, although a leader may be generally recognized as having a specific kind of expertise, a subordinate requiring different types of expertise to perform his or her job may perceive the leader as having high expert power but low functional power. Another subordinate, however, may be involved in a project requiring the leader's specific expertise, and may perceive the leader as having high functional power. Alternately, the leader may be a powerful person in the organization, but may not have used his or her power to provide raises or promotions for the subordinates. In this case, the subordinates may rate their leader high on perceived power and low on functional power.

Summary. In sum, power may be characterized as an upwardly-spiralling function in the leader-subordinate relationship in that leader power may increase subordinate power, and vice versa. Perceptions of leader power have been found to be related to subordinates' morale and satisfaction with leader effectiveness. Leaders who are perceived as having upward influence in an organization may be able to provide for their subordinates' needs. The concept of functional power was developed and distinguished from perceived power.

Power and Gender Differences in Relationships with Subordinates

In this section, an exploration is made into the ways in which gender differences in leader power influences the leader-subordinate relationship.

Perceived Power and Subordinate Evaluations of Female Leaders. As reviewed earlier, perceived power and upward influence have been found to be positively related to leadership evaluations (House, Filley & Gujarati, 1971; Pelz, 1952; Wager, 1965). Female leaders may have less positional power than their male counterparts (Harlan & Weiss, 1982; Hill, 1980; Kanter, 1977a; Wolf & Fligstein, 1979), and may therefore be less able to provide for their subordinates' needs and advancement within the organization.

Along those lines, some researchers have found that compared to male supervisors, female supervisors have less autonomy (Hansen, 1974) and are less able to give promotions to their subordinates (Gupta, Jenkins & Beehr, 1983). However, in a field study of 406 subordinates, Adams (1978) found that subordinates perceived male and female managers as having equal organizational influence, as defined by control over subordinates' pay, promotions and career progress. Of particular interest is the finding that subordinate satisfaction with female leaders was equivalent to subordinate satisfaction with male leaders. The researcher controlled for job level and responsibilities, which essentially may have controlled for gender differences in positional power.

The hypothesis that perceived power influences subordinate evaluations of leaders received indirect support in South, Bonjean, Corder and Markham's (1982) field study of 152 female subordinates, 36 male supervisors and 10 female supervisors employed in a large federal bureaucracy. The researchers intended to test Kanter's (1977a) theory that gender differences in power lead to differences in supervisory behavior. However, the researchers did not measure leader power or behavior. What the researchers actually studied was the impact of supervisors' self-reports of their own power in the organization, combined with their organizational level, on subordinates' job satisfaction and group

morale. South et al. (1982) therefore inadvertently researched an area that is central to this study. The researchers found that compared to subordinates of male supervisors, subordinates of female supervisors reported less job satisfaction, lower group morale, and were more likely to describe their supervisors' behaviors as controlling and particularistic. However, when differences in leader power were controlled for, there was a significant reduction in the differences between genders.

South et al.'s (1982) study supports the view that gender differences in power may relate to differences in leadership evaluation. However, one major limitation of the study is that the researchers used self-report data to operationalize leader power. Subordinates' perceptions of their leaders' power may differ from leaders' perception of their own power. Additionally, subordinates' evaluations of their leaders' effectiveness is a perceptual measure. Using a phenomenological perspective, it can be argued that measurement of leader power should take similar approach. In short, both measures should be taken through the eyes of the subordinate. Other limitations include the fact the findings were unintentional -- the researchers intended to investigate leader behavior, not subordinate evaluations of leader effectiveness. Additionally, the sample consisted of only 10 female leaders and did not include any male subordinates.

A key recent study by Trempe, Rigny and Haccoun (1985) provides direct support for the hypothesis that gender differences in perceived leader power may influence subordinate evaluations of leaders. The researchers asked 87 male and female blue-collar workers to respond to a field simulation in which a male or female supervisor, described as holding high or low upward influence, solved a problem faced by his or her subordinates. The degree of upward influence was found to be significantly related to the participants' reported satisfaction with the imaginary supervisors. The supervisor's and participant's gender did not significantly influence participant's evaluation of the supervisor.

Trempe, Rigny and Haccoun's (1985) study provides support and a basic foundation for part of this investigation. However, their study was limited by the use of a field simulation study of blue-collar workers who may not have been supervised by a female leader. This study attempts to address the generalizability of their findings by studying subordinates of male and female leaders in a field setting. Another limitation of the Trempe, Rigny & Haccoun study is that simulated leader power was constrained to be either high or low upward influence. As discussed earlier, perceived leader power may include personal forms of power -- such as expert and referent -- that may be particularly relevant for subordinates' evaluation of leaders' effectiveness. This investigation includes positional, personal and functional forms of leader power. This study also investigates the relationship between the gender congruency of leader power and subordinate evaluation of leader effectiveness.

Gender Congruency of Power and Evaluations of Female Leaders. An important issue is how subordinates react to female leaders' use of power, and whether the type of perceived power used differentially effects evaluations of leader effectiveness. The theory of gender congruency (Schein, 1975) holds that some leadership behaviors are gender-typed, and that female leaders would receive higher evaluations when engaging in female-typed, rather than male-typed leadership behaviors.

This theory may also apply to the types of power perceived as being used by male and female leaders. Three researchers have investigated gender-typing of leader power. In a laboratory study of 60 male and female psychology students, Johnson (1976) found that females were more likely than males to be perceived as having power based upon their sexual influence and their ability to give personal rewards-such as liking, affection and approval. Males, on the other hand, were more likely than females to be perceived as

having legitimate, expert, and coercive power. Gender-typing was not found for referent power and reward power based upon concrete resources -- such as money and material possessions.

Similarly, in another laboratory study of 95 managers, Wiley and Eskilson (1982) investigated gender-typing of reward and expert power. Using a laboratory simulation, the researchers varied leader gender, subordinate gender, and leader power base, and investigated the relationship between these variables and managerial performance and perception of power. They found that females received higher evaluations for using reward power than expert power, whereas males received higher evaluations for using expert power than reward power. In contrast to other research findings (cf., Podsakoff & Schreisheim, 1985), leaders using expert power were not seen as more effective than those using reward power. Finally, although participants perceived male leaders as being more effective managers when using expert power, they were not perceived as being more powerful when using expert as compared to reward power. Similarly, female leaders were not perceived as being more powerful when using reward rather than expert power.

These findings were only partially replicated in Rice, Instone and Adam's (1984) two field studies of 1,652 cadets. The researchers investigated the relationships between leader gender, subordinates' reasons for complying with their leaders' requests (e.g., perceptions of leader power), subordinates' evaluations of their leaders' effectiveness, and their satisfaction with their leaders. In contrast to the research discussed earlier, *reward* power was not found to be related to gender in either of the field sites. *Legitimate* power, however, was found to be related to gender in both sites. In one site, compared to male leaders, female leaders perceived as using legitimate power received lower subordinate evaluations on satisfaction measures. In the other site, legitimate power had a negative relationship with subordinate ratings of leader effectiveness for female leaders, but a positive relationship with leadership satisfaction for male leaders. Subordinates in this site

rated female leaders as less effective when perceived as using legitimate power, but reported increased satisfaction when their male leaders were perceived as using the same form of power. *Referent* power was found to be male-typed in both sites; in one site it was more strongly correlated with perceived effectiveness for male than for female leaders; in the other site it was correlated with both perceived effectiveness and satisfaction. Consistent with the findings reported by other researchers (e.g., Johnson, 1976; Wiley & Eskilson, 1982), *expert* power was found to be male-typed in both sites; follower compliance on the basis of expert power was found to be more strongly associated with ratings of satisfaction and leader effectiveness for male than for female leaders. Finally, *coercive* power was found to be male-typed in both sites; in one site it was negatively correlated with leader satisfaction; in the other site it was negatively correlated with both satisfaction and effectiveness measures. In short, none of the power bases studied were found to be female-typed.

Summary. In summary, there is some empirical evidence that males are expected to use, and receive more positive evaluations for using, different types of power than females. While expert, legitimate and coercive bases of power have been found to be male-typed, there appears to be conflicting evidence regarding reward power; two laboratory studies found reward power to be female-typed (Johnson, 1976; Wiley & Eskilson, 1982), while the field study of cadets found no gender-affiliation (Rice, Instone & Adams, 1984). Similarly, referent power was found to be male-typed in the field study (Rice, Instone & Adams, 1984), but had no gender affiliation in the laboratory study (Johnson, 1976).

These conflicting findings may be partially a function of the sample and research setting; one study used cadets in a military setting while the other study used undergraduates in a laboratory environment. These samples may have limited generalizability to a management population. This study tests the gender congruency theory of power in a field setting using a management sample.

Gender-typing of leader power presents a potential double-bind for the female leader. Although powerful female leaders may receive positive evaluations because they have the power to provide for their subordinates' needs, they may simultaneously face negative evaluations because they are exhibiting behaviors incongruent with sex-role prescriptions. Moreover, female leaders may face a more limited range of acceptable power bases than their male counterparts; of the five forms of social power (French & Raven, 1959) only reward power has been found to be female-typed (Johnson, 1976; Wiley & Eskilson, 1982).

Another problem faced by female leaders is that the type of power that is most accepted by their subordinates, and may garner them the highest evaluations (i.e., reward power), may not be the type of power that is most effective for meeting their subordinates' needs. Reward power has been found to be negatively related or unrelated to satisfaction with supervision (Slocum, 1970) and subordinate's performance (see review by Podsakoff & Schreisheim, 1985). Expert power, on the other hand, has been found consistently to be male-typed (Johnson, 1976; Rice, Instone & Adams, 1984; Wiley & Eskilson, 1982). Of the five forms of social power, expert power has the strongest relationship with subordinate satisfaction with supervisor (e.g., Podsakoff & Schreisheim, 1985; Slocum, 1970) and organizational effectiveness and power (Backman et al., 1968; Dunne, Stahl & Melhart, 1978; Ivancevich & Donnelly, 1970). In short, female leaders may face a double-bind; they may receive lower evaluations than male leaders if they are perceived as using male-typed forms of power because such forms are incongruent with sex-role stereotypes. However, if they choose to rely upon female-typed power, they may also receive lower evaluations since female-typed power may be less effective than male-typed power.

Subordinate Gender and Gender Congruency of Leader Power. Some researchers have found that male and female subordinates respond differently to different types of power. However, these findings have generally been inconsistent. Rice, Instone and

Adams (1984) found that females complied more often with referent, expert, legitimate, and informational bases of power, whereas males reported responding more often to reward and coercive bases of power. Peay (1976), on the other hand, found that females were more influenced with reward than referent power, whereas males exhibited the opposite response. In a study of gender differences in response to expert power, Berry (1979) found males showed greater compliance with the use of high expert power, whereas females were more compliant with low expert power. However, Son and Schmitt (1983) found no differences in between males and females responses to expert power.

These studies indicate that subordinates' response to leader power may be influenced by subordinate gender. However, the results are inconsistent and none of these studies investigated the relationships among leader gender, subordinate gender and the type of perceived leader power.

Subordinate gender may be most likely to interact with leader gender in the case of perceived referent power, which is based upon the subordinate's identification with the leader. As discussed earlier, referent power has been found inconsistently to be gender-typed. It was found to be male typed in Rice, Instone and Adam's (1984) field study, but had no gender affiliation in Johnson's (1976) laboratory study.

Three possible scenarios may operate in the case of perceived referent power. The first scenario assumes that referent power is based upon leaders' status. If so, gender differences in societal or organizational status may influence perceptions of leaders' referent power. Subordinates may attribute referent power to those who hold power and are valued by society. Referent power in this case would be male-typed; males would be more likely to be perceived as having referent power than females.

The second scenario assumes that referent power is based upon identification. In this case, female leaders may be perceived as having referent power by female subordinates, and male leaders may be perceived as having referent power by male

subordinates. In this situation, referent power may be gender-neutral given equal subordinate gender ratios; female leaders would be just as likely to be perceived as having referent power as their male counterparts.

The third, and most probable scenario, is some combination of the above two; perceived referent power may be influenced by both the subordinates' perception of the leaders' status *and* their ability to identify with the leader. If so, referent power for male leaders may be based upon both their societal status and their subordinates' ability to identify with them. However, since female leaders generally have less societal status than male leaders (e.g., Frieze et al., 1978; Nieva & Gutek, 1981), female leaders' referent power may be based solely upon their subordinates' identification with them.

Research on mentoring in organizations indicates that while female subordinates perceive their male mentors as having referent power, male subordinates are unlikely to have similar perceptions of female mentors (see review by Ragins, 1987). This suggests that while male leaders may be perceived as having referent power by both male and female subordinates, female leaders may only be perceived as having referent power by female subordinates. In other words, male leaders may be perceived as having referent power on the basis of their high status and their subordinates' ability to identify with them, while female leaders' referent power may only be based upon their subordinates' identification with them. Therefore, although referent power may not be gender-typed per se, male leaders may have a higher probability of being perceived as having referent power than female leaders.

Conceptual Model of Power and Subordinate Evaluations

A conceptual model of the factors involved with power and subordinate evaluations of male and female leaders is presented in Figure 2.

As discussed earlier, objective leader power may be defined from a resource-development perspective (e.g., Ragins & Sundstrom, 1987) and may be distinguished

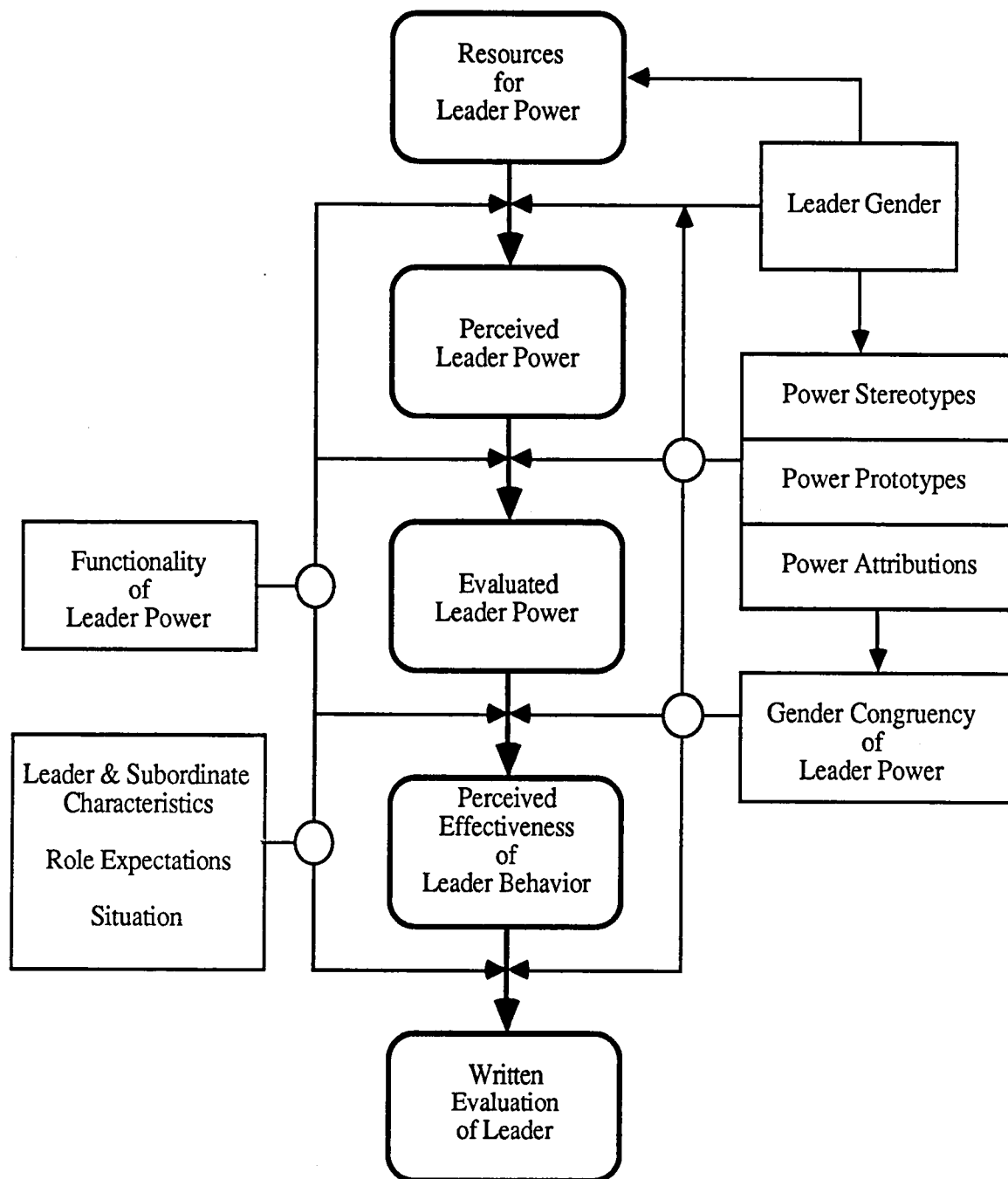


Figure 2. Model of Power and Subordinate Evaluations of Leaders.

from the subordinate's perceptions of the leader's power. An individual may gain resources for power from a position, from an interpersonal work relationship, or from the development of skills and expertise. These may be classified as antecedents for power and may be more accessible for male than female leaders in organizations.

Subordinates' perceptions of a leader's power may, in turn, be differentiated from subordinate's evaluations of the leader's power and the perceived effectiveness of the leader's behavior. As discussed earlier, leader gender may interact with interpersonal perceptions involving stereotypes, prototypes and attributions to influence perceptions of power and evaluations of effectiveness. Female leaders who have resources for power -- such as control over budgets, information or a specialized expertise -- may not be perceived as having power or effectively using it. As discussed earlier, the evaluation of a leader's power and its effectiveness may also be influenced by the gender congruency and perceived functionality of the leader's power.

Finally, cognitive theorists have recognized that subordinates' perception of leader effectiveness may differ from formalized and public evaluations of leader effectiveness (cf. Feldman, 1981; Landy & Farr, 1980; DeNisi, Cafferty & Meglino, 1984). A host of factors may influence subordinates' perception and evaluation of leader effectiveness. Perceived power may be one of those factors. Other factors that may also be related to leadership evaluations include: leader and subordinate characteristics, role expectations, and the situation (cf. reviews by House & Baetz, 1979; Yukl, 1981).

This conceptual model provides a heuristic guide for programmatic research on this topic; it is not meant to be tested in a single study. Part of this model is investigated in this study -- which is the first in a series of studies on this topic.

Hypotheses

Three parts of the conceptual model are investigated in this study. First, the relationships among perceived leader power, leader gender, and subordinate evaluations are

explored. Second, overall perceived leader power is differentiated from functional power in an attempt to understand the relationship between power and leadership evaluations. Third, in an attempt to test the gender congruency hypothesis, the relationships among types of perceived leader power, leader gender, and subordinate evaluations of leader effectiveness are examined.

Overall Perceived Leader Power and Leader Gender. As a foundation for this study, the relationship between perceived leader power and subordinate evaluations leader effectiveness needs to be established. As reviewed earlier, researchers have generally found a positive relationship between perceived upward influence and leadership evaluations (Pelz, 1952; Trempe, Rigny & Haccoun, 1985; Wager, 1965). This study is expected to replicate those results. Moreover, this investigation may add to previous research since it addresses more forms of power than just upward influence. Specifically, overall perceived leader power includes French and Raven's (1959) five forms of social power: reward, coercive, legitimate, referent and expert. Unlike the other forms of social power, coercive power has a negative connotation and is not expected to be positively related to leadership evaluations. Non-coercive power is defined in this study as including four of the five forms of power.

Hypothesis 1: Subordinates' perceptions of leaders' use of non-coercive power will be positively related to their ratings of leader effectiveness.

Leader gender may also be expected to influence subordinates' evaluations of leader effectiveness. As reviewed earlier, many researchers have found that female leaders receive lower evaluations than their male counterparts (e.g., Cohen, Bunker, Burton & McManus, 1978; Bartol & Butterfield, 1976; Haccoun, Haccoun & Sallay, 1978; Petty & Lee, 1975). It is expected that when power is held constant, subordinates will evaluate female leaders lower than their male counterparts. However, it is also expected that when

power is not controlled for, subordinates' perception of leader power will have a greater influence on leadership evaluations than leader gender. In short, the power effect is expected to overshadow the gender effect.

Hypothesis 2 : Holding perceived power constant, female leaders will receive lower leadership evaluations than male leaders.

Hypothesis 3 : Non-coercive leader power will account for more of the unique variance in leader evaluations than leader gender.

Functional Power. Functional power is differentiated from perceived power in the attempt to understand why power may be related to evaluations of leader effectiveness. It is hypothesized that subordinate evaluations of leader effectiveness is primarily based upon the leader being perceived as having the types of power necessary to meet the subordinate's needs. Functional power is therefore hypothesized as the preeminent form of power relating to subordinate evaluations of leader effectiveness.

Hypothesis 4: Non-coercive functional power will account for more of the unique variance in leadership evaluations than non-coercive perceived power.

Gender Congruency of Power. As discussed earlier, subordinates' reactions to leaders' power may be influenced by the congruence of the specific form of power with sex-role stereotypes. Coercive, legitimate and expert power have been found to be male-typed forms of power in two laboratory studies (Johnson, 1976; Wiley & Eskilson, 1982) and a field study of cadets (Rice, Instone & Adams, 1984). It is therefore expected that male leaders who are perceived as using legitimate, coercive and expert forms of power will receive more positive evaluations than female leaders using those forms of power.

Hypothesis 5a: Male leaders perceived as using expert power will receive higher evaluations than female leaders perceived as using expert power.

Hypothesis 5b: Male leaders perceived as using legitimate power will receive higher evaluations than female leaders perceived as using legitimate power.

Hypothesis 5c: Male leaders perceived as using coercive power will receive higher evaluations than female leaders perceived as using coercive power.

The gender-typing of reward power is less straightforward. Although some laboratory studies have found that females are more likely to be perceived as using reward power than males (Johnson, 1976), and receive higher evaluations for using reward as compared to expert power (Wiley & Eskilson, 1982), field studies have not found reward power to be gender-typed (Rice, Instone & Adams, 1984).

One explanation for this is that while reward power may be congruent with female sex-role stereotypes, it may not be incongruent with male sex-role stereotypes. To the extent that power is a stereotypically male phenomenon, male leaders may have more latitude than female leaders in using different bases of power. (This concept is supported by that fact that of the five bases of social power, only reward power has been found to be female-typed). Perceived reward power may therefore be related to higher evaluations for female leaders, but not necessarily lower evaluations for male leaders; female leaders perceived as using reward power may not gain an advantage over their male counterparts -- they may just avoid being penalized.

In short, although reward power may be female-typed, its effects may be obscured. A significant gender effect may therefore indicate relatively strong support for the gender congruency theory.

Hypothesis 6: Female leaders perceived as using reward power will receive more positive evaluations than male leaders perceived as using reward power.

Another approach to testing the gender-typing of reward power is to compare female leaders who are perceived as using female-typed reward power with those who are perceived as using non-coercive, male-typed, bases of power. Under the gender congruency theory, females perceived as using female-typed reward power would receive higher evaluations than those perceived as using male-typed forms of power.

Hypothesis 7a: Female leaders perceived as using reward power more than expert power will receive higher evaluations than females perceived as using expert more than reward power.

Hypothesis 7b: Female leaders perceived as using reward power more than legitimate power will receive higher evaluations than females perceived as using legitimate more than reward power.

Unfortunately, this relationship may also be obscured by confounding variables. Since reward power may be unrelated or negatively related to satisfaction with leaders (Podsakoff & Schreisheim, 1985; Slocum, 1970), subordinates may give high evaluations to female leaders perceived as using reward power because it is congruent with sex-role stereotypes, but at the same time, may give those leaders low evaluations for using less effective forms of power. This situation may serve to mask the sex-role congruency effect for female-typed power.

If reward power is perceived as less effective than other bases of power, but female leaders perceived as using it still receive higher evaluations, then the gender congruency of female leaders' power may be more important than the perceived effectiveness of her

power. This situation would indicate particularly strong support for the gender congruency theory of power.

Subordinate Gender. The subordinate's gender may influence his or her perception of the leader's power. This effect may be particularly salient in the case of referent power.

As reviewed earlier, referent power was found to be male-typed in the field study (Rice, Instone & Adams, 1984), but unrelated to leader gender in the laboratory study (Johnson, 1976). Referent power differs from other forms of power in that it is partially based upon the subordinates' personal identification with the leader (French & Raven, 1959). The gender composition of the leader-subordinate dyad may therefore be a crucial factor. Referent power may be gender-neutral in same-gender dyads; female leaders may be perceived as having referent power by female subordinates, and male leaders may be perceived as having referent power by male subordinates.

The situation changes in mixed-gender dyads. Male leaders may have more status than female leaders, and may therefore be more likely to be perceived as having referent power by subordinates of the opposite gender. Female leaders' referent power may be based solely upon identification, whereas males' referent power may be based on both identification and status. In other words, male leaders may be perceived as having referent power by both male and female subordinates, whereas female leaders may be perceived as having referent power only by their female subordinates.

Hypothesis 8: Holding leadership evaluation constant, male leaders will be more likely than female leaders to be perceived as using referent power by subordinates of the opposite gender.

CHAPTER II

METHODOLOGY

1. PRETEST SAMPLE

An opportunity sample of fifty subordinates was used to develop and refine the measures used in this study. The pretest participants came from diverse geographic backgrounds; they resided in Knoxville, Tennessee, Chicago, Illinois, and New York City, New York. The subordinates also reflected a wide range of occupations; over 25 occupational categories were reported. Included among those were: laborer, fire captain, engineer, teacher, electrician, manager, nurse, personnel officer, secretary, policeman and salesman. The majority of respondents (74%) were employed in full-time positions. The average length of time they were employed at their current company was seven years, with a range of one month to 26 years.

Most of the subordinates in the pretest sample had male supervisors; 72% reported having a male supervisor, while only 26% had a female supervisor. The average number of years the subordinates were supervised by their current supervisor was three years, with a range of 1 month to 25 years.

In terms of demographics, 60% of the pretest sample was female and 94% was Caucasian. The average age of the participants was 40 years old, with ages ranging from 18 to 73. In terms of education, 24% of the participants had a bachelors degree, 14% had a masters degree, and 8% had a doctorates degree.

2. MEASURES

The pretest was used to select perceived and functional power items for the final questionnaire, and to develop the dependent variable of leadership effectiveness.

Perceived Power

The initial item pool for perceived power was obtained from combining Podsakoff, Todor and Huber's Leader Power Inventory (LPI) (1980) with an adapted version of Holzbach's Attributed Power Index (API) (1974). Both instruments provide ratings of French and Raven's (1959) five sources of social power: reward, coercive, legitimate, expert and referent. Each of the five subscales contained eight items; three from the LPI and five from the API. Forty items were therefore used to pretest the perceived power instrument. All items used a 7-point, Likert-type response format, ranging from strongly agree (1) to strongly disagree (7). The descriptive statistics on the 40 items are displayed in Table A.1 in Appendix A.

LISREL was used to assess the distinctiveness of the five power dimensions and to select the optimal items. The structural relationships measurement model of LISREL assesses the relationship between the items (i.e., manifest variables) and the five forms of power (i.e., latent variables). Since the items were developed to reflect the constructs, a confirmatory factor analytic model (i.e., LISREL) is more appropriate and powerful than an exploratory model (i.e., Factor Analysis) (Hughes, Price & Marrs, 1986; Joreskog & Sorbom, 1981).

The Maximum Likelihood LISREL V measurement model was used to obtain the lambdas and *t*-scores for the specific items. The lambdas indicate the relationship between the items and the constructs, and are equivalent to the regression coefficients found in factor pattern matrices. Unlike the Unweighted Least Squares model, the Maximum Likelihood model provides *t*-scores and a means to test the significance of the individual items. *T*-values larger than two are normally judged to be significant (Joreskog & Sorbom, 1981).

The t -values and lambdas were used to select the final items. The top three items were selected from each of the five power subscales. The final perceived power instrument was therefore composed of 15 items.

A Maximum Likelihood LISREL V analysis was used to assess the final values for the 15 selected items. The final LISREL analysis may use either a congeneric or a parallel model. The parallel model is more powerful than the congeneric model, since it assigns equal means and variances to items within a subscale (cf., Ladd, 1985). To determine which model to use in the final analysis, both parallel and congeneric models were used on the initial pool of 40 items. The parallel model can be selected if it is not significantly different from the congeneric model (Ladd, 1985). However, the incremental Chi Square of 53.47 (35 d.f.) was significant. Since the models differed, the congeneric model was used in the final analysis of the 15 items.

Fixed phi models were employed in all of these analyses. The phis reflect the relationships between the latent variables (i.e., types of power). Fixing the phis essentially orthogonalizes the power dimensions, and allows a purer assessment of the relationship between a given item and the type of power it is designed to measure (cf. Joreskog & Sorbom, 1981).

The lambda and t -values for the original and final items are presented in Table A.2 in Appendix A. The LISREL reliability estimates are displayed in Table A.2. These reliability estimates are the squared correlation between the true score (i.e., the latent construct or the type of power) and the observed variable (i.e., the specific item) (cf. Hughes, Price & Marrs, 1986). As expected, items receiving the highest t -values and lambdas also received the highest LISREL reliability estimates.

More traditional forms of item analyses were also conducted on the 40 items. The coefficient alpha for the forty items was .90, and was .75 for the fifteen select items. Reliability estimates for the original and select items are displayed in Table A.1 and A.5 in

Appendix A. The individual item-total correlation coefficients displayed in Table A.1 paralleled and confirmed the LISREL reliability estimates.

Two of the hypotheses (7a & 7b) required an estimation of female leaders' relative use of reward, as compared to expert and legitimate forms of power. Interval paired-comparison data was obtained to estimate this relationship. As displayed in Appendix B, subordinates were asked compare the extent to which their leader uses these forms of power by splitting 99 points between: (1) reward and legitimate power, and (2) reward and expert power. 86% of the pretest participants responded to this question.

Perceived leader power was operationalized as the summation of the five power subscales. Non-coercive leader power was operationalized as the summation of all of the subscales except the coercive scale.

Functional Power

The pretest was also used to develop the functional power instrument. This instrument was designed to assess the degree to which the subordinate perceives the leader as using his or her power to meet the subordinate's work-related needs.

Unlike perceived power, the functional power instrument did not need to differentiate among the five power subscales; hypothesized relationships focused only on summated measures of functional and perceived power. Although subscales were not to be used in the final analysis, they were a useful base from which to develop the instrument. The purpose here was to promote an equitable comparison by designing the functional power instrument to be parallel in scope to the perceived power instrument. Therefore, the functional and perceived power instruments were both composed of five power subscales. The perceived power subscales involved the subordinate's perception of the specific type of power, while the functional power subscales related to the subordinate's perception of the usefulness of the specific type of power for providing for their work-related needs.

In addition to the five functional power subscales, four global functional items were also included in the pretest as part of another research study. The functional power items used the same 7-point Likert scale as the perceived power items. The descriptive statistics for the 28 functional power items are presented in Table A.3 in Appendix A.

The functional power instrument was analyzed with the same LISREL models and methods that were used to test the perceived power instrument. As displayed in Table A.4 in Appendix A, the global items generally had low LISREL reliabilities and were therefore excluded from the final instrument. The final functional power instrument contained 15 items, three from each of the five functional power subscales. A parallel model was used in the final LISREL analysis of the 15 items since the incremental Chi Square of 30.44 (22 d.f.) revealed that the congeneric model did not significantly differ from the parallel model. The coefficient alpha for the original set of 28 items was .95, and was .93 for the 15 selected items. The item-total correlations, lambdas and *t*-values for the original and selected items are displayed in Table A.4 in Appendix A.

Functional leader power was operationalized as the summation of the five functional power subscales. Non-coercive functional leader power was operationalized as the summation of all of the subscales except the coercive scale.

Dependent Variable

Two approaches may be used to measure the dependent variable of leadership effectiveness. The first approach is to measure specific leader behaviors. The problem with using this approach is that although one component of effective leadership may be the leader's ability to influence others, specific items relating to this dimension cannot be included in the dependent variable instrument since they are used in the independent variable instrument. Using the specific leader behavior approach would therefore require omitting items relating to power, influence, and functionality. The dependent variable may

therefore not fully capture the construct of "leadership effectiveness". A more preferable approach for this study was to use global items of leadership effectiveness (e.g., "my supervisor is an effective leader").

Both global and specific leadership effectiveness items were used in the pretest. This was done to assess the relationship between the global and specific items, and to investigate the extent to which the global items represent the specific items. The 51 item instrument contained 5 global items and 46 specific items. The specific items were based on 9 leadership dimensions: support, motivation, functionality, power, delegation, planning, decision making, problem solving and team building. Descriptive statistics on these items are displayed in Table A.6 in Appendix A. The items used the same 7-point Likert scale as the perceived and functional items, with 1 representing "strongly agree" and 7 representing "strongly disagree".

The relationship between the global and specific items was assessed by correlating the mean score of the 5 global items (3.28) with each of the 46 specific items. These 46 correlations were transformed to Fisher Z scores, and the average Z score was transformed back to a correlation coefficient and tested for significance. The correlation coefficient of .655 was significant ($p < .001$, $df=48$). This provided strong support for using the 5 global items in lieu of the 46 specific items in the final instrument. An item analysis was conducted for further verification, and revealed strong support for this conclusion. The total coefficient alpha for the 51 item instrument was .98. The coefficient alpha for the five global items was .95. The item-total correlations for the global items and the correlation matrices are displayed in Table A.7 through Table A.19 in Appendix A.

The dependent variable of leadership effectiveness was operationalized as the unweighted summation of the five global items.

3. STUDY SAMPLE

Participants in this study consisted of 110 subordinates of a matched set of male and female managers. Subordinates were employed at a large government owned, privately operated research and development organization. However, many of the participants were located at two other neighboring organizations: a weapons plant and a uranium-enrichment facility. Although the participants were located at three different organizations, they were employed by one operating company.

4. PROCEDURE

Matching of Managers

To control for differences in positional and departmental power, subordinates were selected from matched sets of male and female managers. Seventy female managers from 15 of the organization's 30 departments were identified. The female leaders' names were obtained from department and central management affirmative action officers, organizational charts and department administrators. The female leaders were distributed among four hierarchical organizational positions: division head, section head, coordinator and group leader. Division heads and coordinators were equivalent to upper and middle level managers. While group leaders were at the lowest supervisory level in the organization, they were considered managers since they were usually responsible for managing government projects and supervising teams of researchers, often within a matrix organizational structure.

Organizational charts were used to match the 70 female managers with their male counterparts. Managers were matched by department, managerial level, and, where possible, specialization area. Due to the shortage of female managers, two male managers were matched to a given female manager when possible. In this way responses from subordinates of female managers could be used even if the subordinates of one of the two

matched males did not participate. However, this double-matching was not possible in departments that had equivalent numbers of male and female managers. In sum, the 70 female managers were matched to 93 male managers.

Data Collection

After receiving approval to conduct the study in the organization, surveys were sent to the 717 subordinates of the 163 male and female managers in late November of 1986. A follow-up letter was sent two weeks later. A second follow-up letter and an extra copy of the questionnaire were sent three weeks later. Over 253 follow-up calls were made both before and after these prompts. The letters are displayed in Appendix B.

Selection of Subordinates

The total number of questionnaires returned was 405, giving a response rate of 56%. Of the 405 questionnaires, 25 could not be used due to the matrix organizational structure; subordinates chose the wrong leader to evaluate. Of the 70 initial pairs of managers, usable data was therefore collected from 55 pairs.

Eighteen female and 16 male managers had only one subordinate participating in the study. Since 30% of the managers had only one subordinate responding to the questionnaire, it was necessary to choose one subordinate from each leader for the final sample to insure equal representation among leaders.

The final sample therefore consisted of 110 subordinates. This size sample lends more than adequate power; a power analysis indicates that for a medium effect size ($r = .30$), a power level of .90 would be obtained in a t test of 112 subordinates ($\alpha = .05$, two-tailed) (Cohen, 1977). Using the same parameters, the power of a significance test of r is .86 ($n = 100$) and .92 ($n = 120$).

It was necessary to select among subordinates in cases where a leader had more than one participating subordinate. Subordinates were selected on the basis of four hierarchical criteria: (1) gender of subordinate, (2) tenure with leader, (3) race, and (4) age.

The testing of one hypothesis in this study required the use of subordinates who were the opposite gender of their supervisor. Therefore, four equal subordinate sample groups were sought:

- (1) male subordinates with female leaders
- (2) female subordinates with male leaders
- (3) male subordinates with male leaders
- (4) female subordinates with female leaders.

Selection on the basis of subordinate gender was used to equalize the number of subordinates in each of these four groups.

An initial tabulation of the sample indicated that 26 female leaders had only female subordinates and 10 female leaders had only male subordinates. For male leaders, 21 had only male subordinates responding, and 13 had only female subordinates. Fortunately, 19 female leaders and 21 male leaders had both male and female subordinates who responded to this study. The selection among these subordinates was based on their gender and the relative shortage in each of the four groups. The final four groups consisted of:

- (1) $n=28$: male subordinates with female leaders
- (2) $n=28$: female subordinates with male leaders
- (3) $n=27$: male subordinates with male leaders
- (4) $n=27$: female subordinates with female leaders

$n=110$: total sample

In cases where there was more than one subordinate of a given gender, subordinates were selected on the basis of the amount of time that they had been supervised by their leader. Subordinates were excluded from the final sample if they were supervised

by their leader for less than two months. Given equivalent leader tenure (± 6 months), race was employed as the third selection criterion. If there were no differences between the subordinates in race, age was used as the final criterion.

5. SUBORDINATE DEMOGRAPHICS

Biographical data of the 110 respondents are summarized below.

1. Age: Mean = 42, with ages ranging from 25 to 67.
2. Race: 94.4% White, 2.8% Black, .9% American Indian or Alaskan Native, 1.9% Asian or Pacific Islander, 0% Hispanic.
3. Marital status: 13.6% single, 80.0% married, 4.5% divorced, 1.8% widowed, 0% cohabitating, 0% separated.
4. Gender of respondent: 50% female, 50% male.
5. Gender of respondent's supervisor: 50% female, 50% male.
6. Highest level of education: 6.4% had a high school degree, 3.7% completed technical school, 23.9% had some college, 22.9% completed college, 16.5% had some graduate work, 17.4% had a MA, MS, MBA or JD degree, and 9.2% had a Ph.D degree.
7. Employment status: 96.3% full-time, 3.7% part-time.
8. Years supervised by current supervisor: Mean = 3.41, with a range of 3 months to 15 years.
9. Years employed at current company: Mean = 11.96, with a range of 3 months to 42 years

10. Job title: 27 different job classifications were reported. The 13 job titles that were held by more than 2% of the sample included: 12.4% research associate, 11.4% clerk, 10.5% information editor/analyst, 8.6% computing systems analyst, 7.6% supervisor, 7.6% technician, 4.8% illustrator/drafting, 3.8% research staff member, 2.9% secretary, 2.9% department head, 2.9% development staff, 2.9% assistant librarian, 2.9% engineer.

CHAPTER III

RESULTS

In this chapter the descriptive statistics, intercorrelations and reliability estimates of the final instruments are presented. This is followed by a description of the analyses used in investigating the hypothesized relationships and the results of the study. All statistical analyses reported in this section were performed using the SPSSX statistical software package.

1. DESCRIPTIVE STATISTICS

Descriptive statistics relating to the specific items used in the perceived power instrument, perceived functional power instrument and leadership effectiveness instrument are displayed in Tables 1, 2 and 3. All items were based on a 7 -point Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree). High scores therefore indicate low ratings for the independent and dependent variables.

As indicated in the tables, missing data was not a particular problem in this study; of the 110 respondents, the lowest response on any given power item was 107. The dependent variable did not have missing data. Since pairwise treatment of missing data is generally acceptable with small numbers of missing data (Cohen & Cohen, 1975, pg. 289), the following analyses used pairwise treatment for missing data.

2. CORRELATIONAL RESULTS

Pearson product-moment correlations were performed to discover the relationships among the perceived power subscales and subordinate ratings of leadership effectiveness.

Table 1

Descriptive Statistics for Perceived Power Items

Dimension	Item	Variable Name	Source	n	M ^a	SD	Item-total ^b Correlation
Reward	My supervisor rewards good work.	REW1	API	110	2.65	1.45	.80
	My supervisor gives credit where credit is due.	REW2	API	110	2.47	1.50	.87
	My supervisor recognizes achievement.	REW3	API	109	2.31	1.36	.84
Coercive	My supervisor rules by might.	COER1	API	107	5.25	1.80	.71
	My supervisor is retaliative.	COER2	API	109	5.06	1.90	.57
	My supervisor is strict.	COER3	API	110	4.40	1.88	.53
Expert	My supervisor is very proficient.	EXP1	API	110	2.57	1.56	.90
	My supervisor is qualified to hold his or her position.	EXP2	API	110	2.15	1.56	.85
	I consider my supervisor to be very skilled.	EXP3	API	110	2.72	1.70	.90
Referent	My supervisor is my idea of a perfect manager.	REF1	LPI	110	4.16	1.85	.77
	I admire my supervisor.	REF2	API	110	2.86	1.73	.86
	I respect my supervisor as a person.	REF3	API	110	1.94	1.37	.71
Legitimate	My supervisor has the authority to tell me what to do.	LEG1	LPI	109	1.82	1.23	.51
	My supervisor has the right to tell me what to do.	LEG2	LPI	109	2.05	1.26	.51
	My supervisor is entitled to direct my actions.	LEG3	API	110	2.40	1.47	.68

^a

Means are based on a 7-point Likert rating scale, ranging from 1 (strongly agree) to 7 (strongly disagree).

^b

Item-total correlations represent the correlation between the item's score and the scale score computed from the other items in the set.

Table 2
Descriptive Statistics for Functional Power Items

Dimension	Item	Variable Name	n	M ^a	SD	Item-total correlation ^b
Reward	My supervisor provides for my work-related needs by helping me advance in the organization.	FREW1	110	3.96	1.82	.62
	My supervisor provides for my work-related needs by assigning me desirable tasks.	FREW2	110	3.31	1.53	.53
	My supervisor provides for my work-related needs by rewarding me for effective performance.	FREW3	109	3.25	1.59	.68
Coercive	My supervisor provides for my work-related needs by letting me know when my performance is not up to par.	FCOER1	110	3.96	1.40	.57
	My supervisor provides for my work-related needs by reprimanding me for inadequate performance.	FCOER2	110	4.98	1.61	.39
	My supervisor provides for my work-related needs by letting my co-workers know when their performance is not up to par.	FCOER3	108	4.61	1.45	.40
Expert	My supervisor's skills provides for my work-related needs.	FEXP1	110	4.15	1.82	.85
	My supervisor's experience provides for my work-related needs.	FEXP2	110	3.87	1.76	.91
	My supervisor provides for my work-related needs by being an expert in his or her field.	FEXP3	110	3.52	1.79	.82
Referent	My admiration for my supervisor provides for my work-related needs.	FREF1	109	4.61	1.63	.84
	My respect for my supervisor provides for my work-related needs.	FREF2	109	4.37	1.71	.84
	My identification with my supervisor provides for my work-related needs.	FREF3	110	4.14	1.60	.69
Legitimate	My supervisor provides for my work-related needs by increasing my status in the organization.	FLEG1	110	3.93	1.68	.59
	My supervisor provides for my work-related needs by providing me with visibility in the organization.	FLEG2	110	3.72	1.55	.68
	My supervisor provides for my work related needs by being in a position of authority in the organization.	FLEG3	110	3.77	1.53	.33

^a Means are based on a 7-point Likert rating scale, ranging from 1 (strongly agree) to 7 (strongly disagree).

^b Item-total correlations represent the correlation between the item's score and the scale score computed from the other items in the set.

Table 3
Descriptive Statistics for Leadership Evaluation Items

Item	Variable Name	<i>n</i>	<i>M</i> ^a	<i>SD</i>	Item-total correlation ^b
My supervisor is an effective leader.	G1	110	2.96	1.82	.94
My supervisor displays effective leader behaviors.	G2	110	3.05	1.82	.93
My supervisor displays strong leadership abilities.	G3	110	3.44	1.98	.94
My supervisor is one of the best leaders I have ever had.	G4	110	3.85	2.10	.92
My supervisor is one of the best leaders in my organization.	G5	110	3.78	2.10	.91

^a Means are based on a 7-point Likert rating scale, ranging from 1 (strongly agree) to 7 (strongly disagree).

^b Item-total correlations represent the correlation between the item's score and the scale score computed from the other items in the set.

Since specific perceived power subscales were used in hypothesized relationships, it was particularly important to assess the degree of interdependence among the perceived power subscales.

The intercorrelations among the perceived power subscales and leadership evaluations are displayed in Table 4. As indicated in the table, all of the non-coercive perceived power subscales were found to have a significant positive relationship with leadership evaluations. As expected, perceived coercive power was not found to be significantly correlated with leadership evaluations. In terms of relationships among the perceived power subscales, particularly high intercorrelations were found among the expert and referent ($r = .85, p < .001$), reward and referent ($r = .74, p < .001$), and reward and expert ($r = .67, p < .001$) perceived power subscales. As expected, perceived coercive power was not highly intercorrelated with the other perceived power subscales.

As discussed earlier, only summated values of the perceived functional power instrument were used in hypothesized relationships. The specific perceived functional power subscales were used to develop the instrument and promote an equitable comparison between the summated values of the perceived power and perceived functional power instruments. The correlations between the perceived functional power subscales, perceived power subscales and the dependent variable of subordinate ratings of leader effectiveness can be found in Table 4.

Subordinates' ratings of leader effectiveness were found to be significantly correlated with both the composite perceived power instrument ($r = .77, p < .001$) and the composite perceived functional power instrument ($r = .63, p < .001$). The perceived power and perceived functional power instruments were also significantly correlated ($r = .68, p < .001$).

Table 4

Intercorrelations Among Perceived Power Subscales, Functional Power Subscales and Leadership Effectiveness.

Subscale	M	SD	1	Perceived Power						Functional Power				
				2	3	4	5	6	7	8	9	10	11	
1. Leader Effectiveness	17.09	9.36	---											
2. Perceived Reward	7.44	4.01	.62*** (109)	---										
3. Perceived Coercive	14.72	4.61	-.14 (107)	-.20* (107)	---									
4. Perceived Expert	7.44	4.57	.82*** (110)	.67*** (109)	---	-.13 (107)								
5. Perceived Legitimate	6.26	3.22	.41*** (108)	.42*** (108)	.53*** (108)	-.07 (106)	---							
6. Perceived Referent	8.96	4.48	.83*** (110)	.74*** (109)	.85*** (110)	-.22* (107)	.48*** (108)	---						
7. Functional Reward	10.50	4.09	.44*** (109)	.57*** (108)	.50*** (109)	-.16** (106)	.49*** (108)	.51*** (109)	---					
8. Functional Coercive	13.56	3.37	.19 (108)	.16** (107)	.24* (108)	.28*** (105)	.13 (106)	.17** (108)	.29*** (107)	---				
9. Functional Expert	11.54	5.04	.63*** (110)	.48*** (109)	.68*** (110)	-.07 (107)	.42*** (108)	.67*** (110)	.57*** (109)	.23* (108)	---			
10. Functional Legitimate	11.42	3.78	.54*** (110)	.46*** (109)	.60*** (110)	-.04 (107)	.32*** (108)	.50*** (110)	.75*** (109)	.38*** (108)	.61*** (110)	---		
11. Functional Referent	13.09	4.47	.51*** (109)	.40*** (108)	.54*** (109)	-.12 (106)	.29*** (107)	.54*** (109)	.47*** (108)	.11 (107)	.66*** (109)	.54*** (109)	---	

Note: Sample sizes are in parentheses.

*p < .05

**p < .01

***p < .001

3. RELIABILITY OF INSTRUMENTS

The coefficient alpha estimates for the perceived power, perceived functional power and leader evaluation composite instruments and subscales are displayed in Table 5. As indicated in the table, the final composite instruments had acceptable internal consistency; the coefficient alphas for the perceived power, perceived functional power and leader evaluation variables were .86, .91 and .97 respectively.

4. TESTS OF HYPOTHESES

Hypothesis 1

Subordinates' perception of leaders' use of perceived non-coercive power was hypothesized to be positively related to ratings of leader effectiveness. This hypothesis was strongly supported; perceived non-coercive perceived leader power had a significant positive correlation with perceived leader effectiveness ($r = .81, p < .001$). An examination of residuals and scatterplots revealed that this relationship appears to be linear.

Hypothesis 2

Holding perceived power constant, it was hypothesized that female leaders would receive lower leader evaluations than male leaders. To hold perceived power constant, it was entered first in a hierarchical regression analysis. Leader gender (dummy coded with 1 representing males and 0 representing females) was entered as the second step. This hypothesis was not supported, leader gender did not account for a significant increase in the R^2 . (The results of the analyses are presented in Table 6.) As a follow-up investigation of leader gender as a main effect, leader gender was entered first in a hierarchical analysis. This analysis revealed that the R^2 associated with leader gender was nonsignificant ($R^2 = .003$).

Table 5
Coefficient Alphas for Final Instruments

Instrument	Number of Items	Coefficient Alpha
Perceived Leader Power	15	.86
Reward Subscale	3	.92
Coercive Subscale	3	.77
Expert Subscale	3	.94
Referent Subscale	3	.88
Legitimate Subscale	3	.73
Functional Leader Power	15	.91
Reward Subscale	3	.77
Coercive Subscale	3	.64
Expert Subscale	3	.93
Referent Subscale	3	.83
Legitimate Subscale	3	.70
Leadership Effectiveness	5	.97

Table 6

Hierarchical Regression Analyses of the Relationship Between Leader Gender and Evaluations of Leader Effectiveness

Variable	Step	R^2	R^2 change (per step)	beta	b	t (for beta)
Perceived Power	1	.59	.59*** a	.77	.52	12.22***
Leader Gender	2	.59	.000ns	-.02	-.37	-.31ns
Leader Gender	1	.003	.01ns	.11	2.04	1.14ns

*** $p < .001$

a F test performed on R^2 increment.

Hypothesis 3

The hypothesis that perceived non-coercive power would account for more of the unique variance in leader evaluations than leader gender was supported. A significant partial correlation was found between perceived non-coercive power and leader evaluations when the effects of leader gender were partialled out of both variables ($r = .81$, $p < .001$). The partial correlation of leader gender with leader evaluations when controlling for perceived non-coercive power was not significant ($r = -.01$).

Hierarchical regression analyses confirmed the above findings. When entered after non-coercive perceived power, leader gender accounted for a R^2 change of only .00004. However, when leader gender was entered first in the equation, non-coercive perceived power accounted for a significant R^2 change of .65 ($F(2, 105) = 198.40$, $p < .001$).

Hypothesis 4

The perceived functional power construct was assessed in this hypothesis. Specifically, it was hypothesized that perceived non-coercive functional power would account for more of the unique variance in leader evaluations than perceived non-coercive power. The data did not support this hypothesis. The partial correlation between perceived non-coercive functional power and leader evaluations when the effects of perceived non-coercive power were partialled out of both variables was .15 (*ns*). The partial correlation between non-coercive perceived power and leader evaluations when controlling for non-coercive perceived functional power was, on the other hand, highly significant ($r = .66, p < .001$).

Hierarchical regression analyses were used to further investigate these effects. When entered after non-coercive perceived power, non-coercive perceived functional power accounted for a R^2 change of .01(*ns*). However, non-coercive perceived power accounted for a significant R^2 change when entered after non-coercive perceived functional power (R^2 change = .25, $F(2, 104) = 78.93, p < .001$).

The intercorrelations among these variables helped to illuminate the relationships. Specifically, while significant correlations were found between leader evaluations and non-coercive perceived power ($r = .81, p < .001$), and leader evaluations and non-coercive perceived functional power ($r = .64, p < .001$), non-coercive perceived functional power was also highly correlated with non-coercive perceived power ($r = .72, p < .001$). It therefore appears that perceived functional power was not differentiated from perceived power, and that perceived power was more of a critical ingredient in ratings of leadership effectiveness than perceived functional power.

Hypotheses 5a, 5b, 5c and 6

These hypotheses were used to test the interactions between gender and specific types of leader power. Specifically, it was hypothesized that male leaders perceived as

using expert (hypothesis 5a) , legitimate (hypothesis 5b), or coercive (hypothesis 5c) power would receive higher evaluations than females perceived as using those forms of power. While expert, legitimate and coercive power were hypothesized to be male-typed forms of power, reward power was hypothesized to be a female-typed form of power; hypothesis 6 held that female leaders perceived as using reward power would receive higher evaluations than male leaders perceived as using reward power. Although referent power was not hypothesized to be gender related, a post hoc analysis of that interaction term was also conducted.

To control for differences between the genders in power and the interactions among the subscales of power, leader gender and four of the power subscales were entered hierarchically in the first step. The power subscale that was included in the interaction term was entered in the second step. The final step consisted of the gender-power interaction term. Differences between the genders in evaluations were expected to increase at higher levels of perceived power. Gender differences in evaluations were not expected at low levels of perceived power; it was expected that both genders would receive low evaluations when perceived as lacking expert, reward and legitimate perceived power. Correspondingly, both genders were expected to receive high evaluations when perceived as using low levels of coercive power, and males were expected to receive higher evaluations than females at higher levels of perceived coercive power. In short, it was anticipated that the differences between the slopes for males and females would increase at higher levels of perceived power.

The results of these four regression analyses are presented in Table 7. As indicated in the table, none of the interactions were significant. There is apparently no support for the hypothesis that different types of power are gender-typed, i.e., that leader gender

Table 7
Hierarchical Regression Analyses of the Interactions between Leader Gender and Perceived Power Subscales

Hypothesis	Variable	Step	R^2	R^2 change (per step)	beta	b	t (for beta)
5a	Set:	1	.69	.69****a			
	Leader Gender				-.001	-.02	-.02ns
	Reward				.03	.06	.324ns
	Coercive				.05	.09	.77ns
	Legitimate				.02	.06	.31ns
	Referent				.81	1.69	9.28***
	Expert	2	.72	.05***	.45	.93	4.38***
	Expert X Gender	3	.72	.0002ns	.04	.07	.30ns
5b	Set:	1	.74	.74***			
	Leader Gender				-.04	-.74	-.79ns
	Reward				-.002	-.004	-.02ns
	Coercive				.02	.05	.48ns
	Expert				.43	.87	4.31***
	Referent				.48	.99	4.37***
	Legitimate	2	.74	.002ns	-.05	-.16	-.90ns
	Leg. X Gender	3	.74	.0005ns	.06	.14	.45ns
5c	Set:	1	.74	.74***			
	Leader Gender				-.05	-.89	-.88ns
	Reward				.003	.01	.04ns
	Expert				.46	.93	4.45***
	Referent				.47	.98	4.36***
	Legitimate				-.05	-.16	-.88ns
	Coercive	2	.74	.001ns	.03	.05	.49ns
	Coercive X Gender	3	.74	.003ns	.23	.26	1.17ns
6	Set:	1	.74	.74***			
	Leader Gender				-.05	-.94	-.94ns
	Coercive				.03	.05	.49ns
	Expert				.45	.93	4.42***
	Referent				.48	1.01	4.90***
	Legitimate				-.05	-.16	-.90ns
	Reward	2	.74	.00002ns	.01	.02	.09ns
	Reward X Gender	3	.74	.004ns	.17	.30	1.20ns

Table 7 (Continued)

Hypothesis	Variable	Step	R^2	R^2 change (per step)	beta	b	t (for beta)
Post-Hoc	Set:	1	.69	.69*** ^a			
	Leader Gender				-.08	-1.42	-1.29 ns
	Reward				.15	.36	2.01**
	Coercive				-.01	-.01	-.11 ns
	Expert				.76	1.56	9.29***
	Legitimate				-.05	-.16	-.82 ns
	Referent	2	.72	.05***	.48	1.00	4.37***
	Referent X Gender	3	.72	.0004 ns	.05	.09	.39 ns

** $p < .01$ *** $p < .001$ ^a F test performed on R^2 increment.

would interact with type of power to influence leader evaluation. This result is consistent with the finding that leader gender does not account for a significant amount of the variance in leadership effectiveness in this sample.

Hypotheses 7a and 7b

These hypotheses were designed to further test the hypothesized female-typing of reward power. Hypothesis 7a held that female leaders perceived as using reward power more than expert power would receive higher evaluations than females perceived as using expert more than reward power. In hypothesis 7b it was proposed that female leaders perceived as using reward power more than legitimate power would receive higher evaluations than females perceived as using legitimate more than reward power. As discussed earlier, to estimate the leaders' relative use of reward power, subordinates were first asked to split 99 points between reward and expert power. They were then asked to do the same comparison for reward and legitimate power. Female leaders who were

perceived as using reward more than expert power were operationalized as those in the upper third of the reward distribution (i.e., those receiving 66 points or more for reward power). Similarly, the upper third of the distribution was also used to select female leaders who were perceived as using primarily expert power and legitimate power.

To test hypothesis 7a, independent sample *t* tests were used to compare females who were rated as primarily using reward power with females who were rated as primarily using expert power. As displayed in Table 8, this hypothesis was not supported; there were no significant differences between the groups. The data revealed from independent *t* tests also failed to support hypothesis 7b; females who were rated as primarily using reward power did not receive significantly different leadership evaluations than females who were were rated as using primarily legitimate power.

These results are consistent with the results of hypothesis 6; the results of these analyses indicates a lack of support for the gender congruency theory of power.

Table 8
Independent t Test Comparisons of Female Leaders Using Primarily Reward, Expert , and Legitimate Forms of Power

Group	<i>n</i>	<i>M</i>	<i>SD</i> ^a	<i>t</i> ^b	<i>p</i>
Primarily Reward	6	19.50	10.03	.95	<i>ns</i>
Primarily Expert	25	15.24	8.91		
Primarily Reward	9	15.11	9.75	-.97	<i>ns</i>
Primarily Legitimate	29	18.69	9.28		

^a Means are based on a 7-point scale ranging from strongly agree (1) to strongly disagree (7). High scores therefore indicate low evaluations of leader effectiveness.

^b Based on separate variance estimates.

Hypothesis 8

This hypothesis was used to investigate the impact of the gender combination in the leader-subordinate dyad on subordinates' perceptions of leaders' referent power. It was hypothesized that when holding leadership evaluation constant, male leaders were more likely than female leaders to be perceived as using referent power by subordinates of the opposite gender. The opposite gender dyad variable was dummy coded with 1 representing male leaders with female subordinates and 0 representing female leaders with male subordinates. Leadership evaluation was held constant by entering the variable first in a hierarchical regression equation. The opposite gender dyad variable was entered hierarchically as the second step. As indicated in Table 9, this hypothesis was not supported; the opposite gender dyad variable did not account for a significant amount of the variance in perceived referent power.

Table 9
Hierarchical Regression Analyses of the Relationship Between Gender of the Leader-Subordinate Dyad and Perceptions of Leaders' Referent Power

Variable	Step	R^2	R^2 change (per step)	beta	b	t (for beta)
Leader Evaluation	1	.68	.68*** a	.83	.40	10.81***
Opposite Gender Dyad	2	.68	.000 ns	.01	.08	.12 ns

a F test performed on R^2 increment.

*** $p < .001$

Summary

In summary, only hypotheses 1 and 3 were supported; perceived leader power was significantly related to evaluations of leader effectiveness, and perceived leader power accounted for more of the unique variance in leader evaluations than leader gender. Leader gender was not significantly related to evaluations of leader effectiveness, and leader gender did not significantly interact with the perceived power subscales. Counter to expectations, male leaders were not more likely than female leaders to be perceived as having referent power by subordinates of the opposite gender. Finally, hypothesized relations regarding perceived functional power were not supported; functional leader power accounted for less of the variance in leader evaluation than perceived leader power.

5. POST HOC ANALYSES

Post hoc analyses were conducted to further explore and explain the relationships among the variables. Among the post hoc topics investigated included: the impact of demographics on leadership evaluation, the relationships among the perceived power subscales and leadership effectiveness, the relationships between perceived power and leader gender, and the impact of subordinate gender on obtained relationships.

Post Hoc Analyses of Respondent Demographics

Data was collected on respondents' age, educational level, ethnicity, marital status, employment status, length of time supervised by current leader and length of time employed in the organization. To assess the need to control for these variables in analyses of hypothesized relationships, they were entered in a stepwise regression equation. None of the variables were significantly related to evaluations of leader effectiveness. However, since the demographic variables of tenure with leader, race and age were used as matching criteria in the selection of study participants, extraneous variance due to these demographic variables may have already been partially controlled for by the design of the study.

Post Hoc Analyses of Leader Effectiveness and Specific Types of Perceived Power

The relationship between the specific type of perceived leader power and subordinate evaluations of leadership effectiveness proved to be an interesting post hoc topic. In five post hoc hypotheses, it was proposed that perceived expert power would have the strongest relationship with perceived leader effectiveness, and would be followed in turn by referent, legitimate, reward and coercive power. These hypotheses were aligned with other researcher's findings (e.g., Podsakoff & Schreisheim, 1985; Slocum, 1970).

Since many of the specific types of perceived power were highly correlated, hierarchical regression analyses were used to ascertain the amount of variance in leader effectiveness accounted for by each of the five perceived power subscales. Four of the five types of perceived power were first entered hierarchically as a set. The specific type of perceived power to be tested was then entered hierarchically in the second step. As displayed in Table 10, evaluations of leader effectiveness were primarily related to perceived referent and expert power. Perceived legitimate, coercive and reward power did not account for a significant amount of the variance in evaluations of leader effectiveness.

Table 10
Exploratory Hierarchical Regression Analyses of the Relationship Between Perceived Power Subscales and Ratings of Leadership Effectiveness

Variable	R^2 change ^a	beta	t (for beta)
Referent	.05*** ^b	.49	4.49***
Expert	.05***	.43	4.29***
Legitimate	.001 ^{ns}	-.04	-.74 ^{ns}
Coercive	.0003 ^{ns}	.02	.38 ^{ns}
Reward	.0000 ^{ns}	-.002	-.03 ^{ns}

^a Indicates R^2 increment of power subscale when added hierarchically after other subscales.

^b F test performed on R^2 increment.

*** $p < .001$

Given the significant correlation between perceived reward power and leader evaluations ($r = .62$), and the low correlation between perceived coercive power and leader evaluations ($r = -.14$), it came initially as somewhat of a surprise to find that when holding other perceived power subscales constant, perceived coercive power accounted for more of the variance in leader evaluation than perceived reward power. However, a closer examination of the intercorrelations among the subscales revealed that perceived reward power was significantly correlated with both perceived referent ($r = .74$) and perceived expert ($r = .67$) power, which in turn accounted for significant amounts of the variance in leader evaluations. This problem of multicollinearity was addressed in the hierarchical analysis; when controlling for perceived referent and perceived expert forms of power, perceived reward power was not significantly related to leader evaluations.

Post Hoc Analyses of Gender Differences in Perceived Power

The relationship between leader gender and perceptions of leader power was a particularly interesting post hoc question given that leader gender did not account for a significant amount of the variance in leader evaluations, and that perceived leader power was significantly related to ratings of leader effectiveness. As a post hoc hypothesis, it was proposed that males would be more likely than females to be perceived as having power. This hypothesis was based on the previous discussion and literature suggesting that perceptions of power may be aligned more with male than female sex-role stereotypes.

As displayed in Table 11, a hierarchical analysis was used to assess the relationship between leader gender and perceived leader power. Although the leader gender effect did not approach conventional levels of significance, leader gender was found to be marginally related to perceived leader power, ($R^2 = .02$, $p < .10$). The positive beta weight reveals

that male leaders (who were dummy coded as 1) received higher ratings than female leaders (who were dummy coded as 0). Since the 7-point Likert scale had 7 representing "strongly disagree", high ratings actually represented low power. Females were therefore somewhat more likely to be perceived as having power than males. However, when evaluation of leader effectiveness was controlled for by entering it first in a hierarchical equation, the marginal leader gender effect dissipated (R^2 change = .01, F change (2, 103) = 1.80).

Table 11
Exploratory Hierarchical Regression Analyses of the Effects of Leader Gender on the Composite Measure of Perceived Power

Variable	Step	R^2	R^2 change (per step)	beta	b	t (for beta)
Leader Gender	1	.03	.03* ^a	.17	4.62	1.73*
Leadership Effectiveness	1	.59	.59**	.77	1.14	12.22**
Leader Gender	2	.60	.007 _{ns}	.08	2.33	1.34 _{ns}

* $p < .10$

** $p < .001$

^a F test performed on R^2 increment.

A more fine-grained analysis was conducted to explore possible relationships between leader gender and power subscales. Five separate regression analyses were conducted, with the five subscales of perceived power as the dependent variables. As displayed in Table 12, females were significantly more likely than males to be perceived as having expert power ($p < .05$). Differences between the genders were not found for the other forms of power, although marginal differences were found for perceived reward power ($p < .10$). When controlling for perceived leader effectiveness, the leader gender

effects dissipated in the case of reward power, but maintained significance in the case of expert power ($p < .05$). It appears, therefore, that female leaders may be more likely than male leaders to be perceived as having expert power, even when controlling for differences in perceived leadership effectiveness.

Table 12
Exploratory Hierarchical Regression Analyses of the Effects of Leader Gender on Perceived Power Subscales

Dependent Variable	Independent Variable	Step	R^2	R^2 change (per step)	beta	b	t (for beta)
Reward	Leader Gender	1	.03	.03* ^a	.17	1.35	1.77*
	Effectiveness	1	.39	.39***	.62	.27	8.26***
	Leader Gender	2	.40	.01 ns	.10	.82	1.35 ns
Coercive	Leader Gender	1	.01	.01 ns	.10	.91	1.02 ns
	Effectiveness	1	.02	.02 ns	-.14	-.07	-1.45 ns
	Leader Gender	2	.03	.01 ns	.12	1.07	1.20 ns
Referent	Leader Gender	1	.02	.02 ns	.13	1.13	1.32 ns
	Effectiveness	1	.68	.68***	.83	.40	15.28***
	Leader Gender	2	.69	.001 ns	.04	.32	.67 ns
Expert	Leader Gender	1	.04	.04**	.21	1.89	2.21**
	Effectiveness	1	.67	.67***	.82	.40	14.76***
	Leader Gender	2	.68	.01**	.12	1.09	2.19**
Legitimate	Leader Gender	1	.001	.001	-.04	-.23	-.37 ns
	Effectiveness	1	.17	.17***	.14	.41	4.65***
	Leader Gender	2	.18	.01 ns	-.09	-.53	-.92 ns

* $p < .10$

** $p < .05$

*** $p < .001$

^a F test performed on R^2 increment.

Post Hoc Analyses of the Relationship Between Subordinate Gender, Ratings of Leader Effectiveness and Perceptions of Leader Power

Subordinate gender effects were analyzed through a series of hierarchical regression analyses. As displayed in Table 13, when entered as the sole term in a hierarchical equation, subordinate gender was not found to be significantly related to ratings of leader effectiveness, perceptions of overall perceived leader power, or to perceptions of the five subscales of leader power.

Table 13
Exploratory Regression Analyses of the Effects of Subordinate Gender on Perceived Power and Leadership Effectiveness

Independent Variable	Dependent Variable	R^2	R^2 change (per step)	beta	b	t (for beta)
Main Effects:						
Subordinate Gender	Effectiveness	.01	.01 ns^a	-.09	-1.67	-.94 ns
Sub. Gender	Perceived Power	.01	.01 ns	-.08	-2.21	-.82 ns
Sub Gender	Reward	.02	.02 ns	-.14	-1.15	-1.50 ns
Sub. Gender	Coercive	.004	.004 ns	.06	.57	.63 ns
Sub. Gender	Expert	.005	.005 ns	-.07	-.65	-.75 ns
Sub. Gender	Referent	.004	.004 ns	-.06	-.54	-.64 ns
Sub. Gender	Legitimate	.005	.005 ns	-.07	-.45	-.73 ns
Gender Interactions:						
Sub. X Leader	Effectiveness	.03	.01	-.21	-4.58	-1.29 ns
Sub. X Leader	Perceived Power	.08	.05**	-.37	-11.80	-2.25**
Sub. X Leader	Reward	.07	.02 ns	-.23	-2.14	-1.43 ns
Sub. X Leader	Coercive	.01	.000 ns	-.005	-.06	-.03 ns
Sub. X Leader	Expert	.10	.05***	-.40	-4.19	-2.50***
Sub. X Leader	Referent	.05	.03*	-.28	-2.91	-1.72*
Sub. X Leader	Legitimate	.03	.02 ns	-.27	-2.01	-1.63 ns
Sub. Gender-Power Interactions:						
Sub. X Reward	Effectiveness	.39	.000 ns	.03	.07	.19 ns
Sub. X Coercive	Effectiveness	.04	.02 ns	.48	.55	1.37 ns
Sub. X Expert	Effectiveness	.68	.01*	.20	.41	1.77*
Sub. X Referent	Effectiveness	.68	.001 ns	.05	.09	.41 ns
Sub. X Legitimate	Effectiveness	.17	.001 ns	-.07	-.18	-.33 ns

* $p < .10$ ** $p < .05$ *** $p \leq .01$

^a F test performed on R^2 increment.

In tests of subordinate gender and leader gender interactions, subordinate gender did not significantly interact with leader gender in predicting perceived leadership effectiveness. However, a significant gender interaction was found in predicting perceived leader power ($p < .05$). As illustrated in Figure 3, male subordinates were more likely to perceive male leaders as having power, while female subordinates were more likely to perceive female leaders as having power. In short, same-gender dyads were more likely to be related to perceptions of leader power than mixed-gender dyads.

As a follow-up investigation, tests of leader and subordinate gender interactions were conducted for each of the five perceived power subscales. As displayed in Table 13, significant gender interactions were found for perceived expert power ($p \leq .01$), and a marginal effect was found for perceived referent power ($p < .10$). As illustrated in Figure 4, same-gender leader-subordinate dyads were more likely to be related to perceptions of expert power than mixed-gender dyads. For the reader's information, the marginal effects found for perceived referent power are displayed in Figure 5.

Finally, tests were made of the interactions between subordinate gender and the perceived power subscales in predicting evaluations of leader effectiveness. A marginal effect was found for perceived expert power ($p < .10$), and is displayed for informative purposes only in Figure 6. Although the relationship does not attain conventional levels of significance, there is some indication that for high levels of perceived expert power, male subordinates may be more likely than female subordinates to give their leader high evaluations.

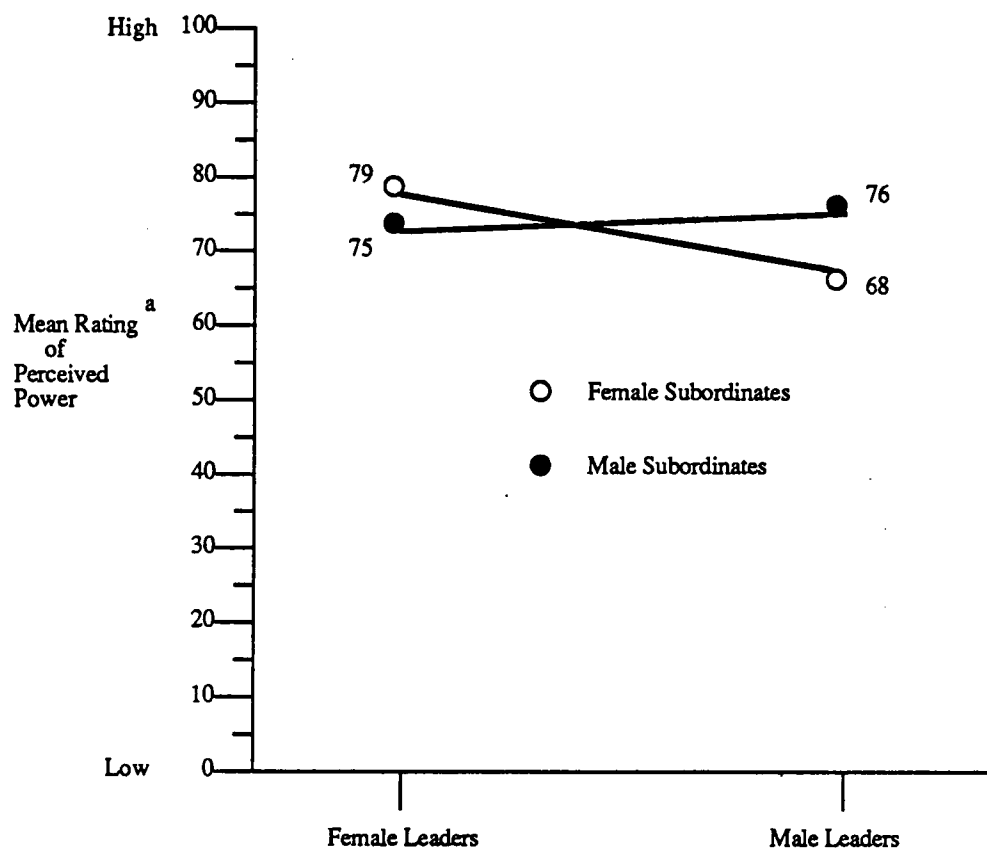


Figure 3. Mean Scores of Perceived Power for Male and Female Subordinates of Male and Female Leaders

^a Scale values recoded. High scores represent high values of power.

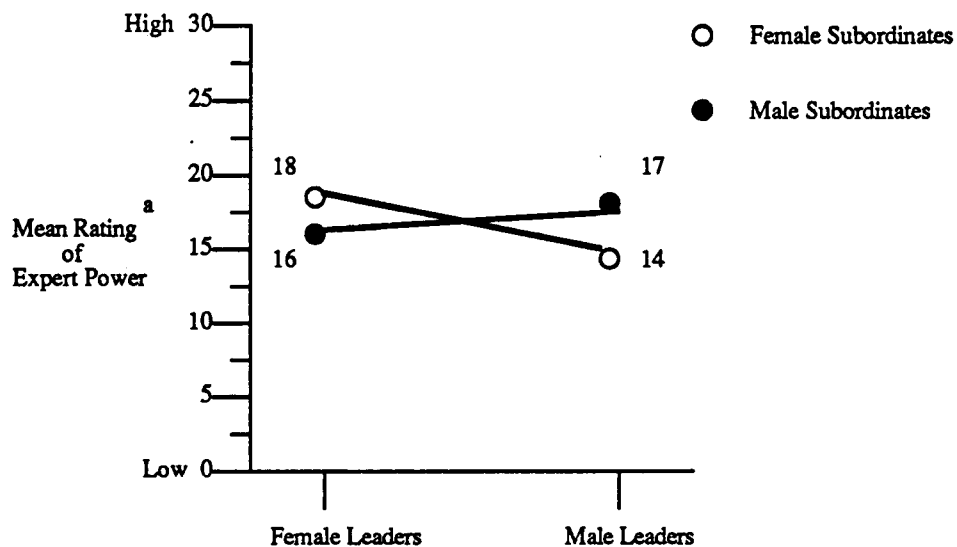


Figure 4. Mean Scores of Perceived Expert Power for Male and Female Subordinates of Male and Female Leaders.

^a Scale values recoded. High scores represent high values of power.

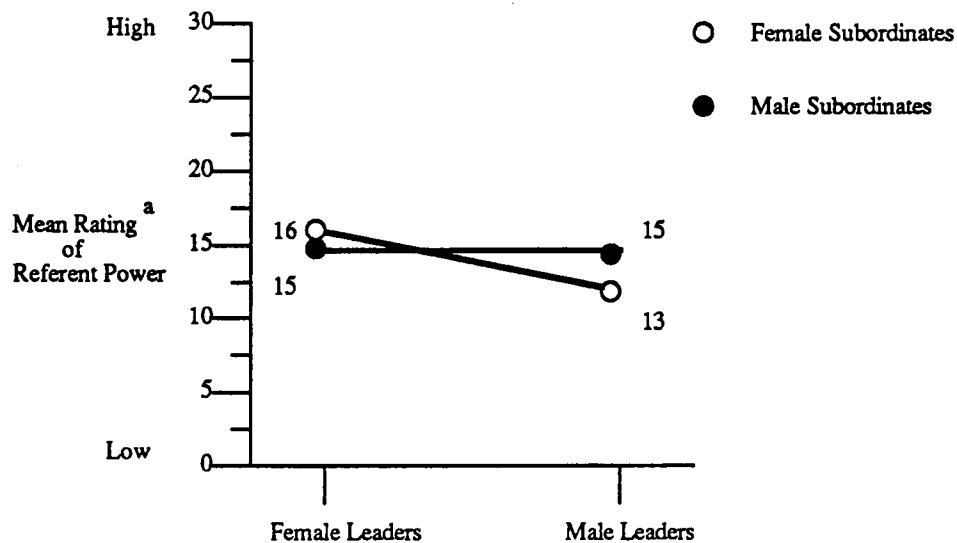


Figure 5. Mean Scores of Perceived Referent Power for Male and Female Subordinates of Male and Female Leaders.

^a Scale values recoded. High scores represent high values of power.

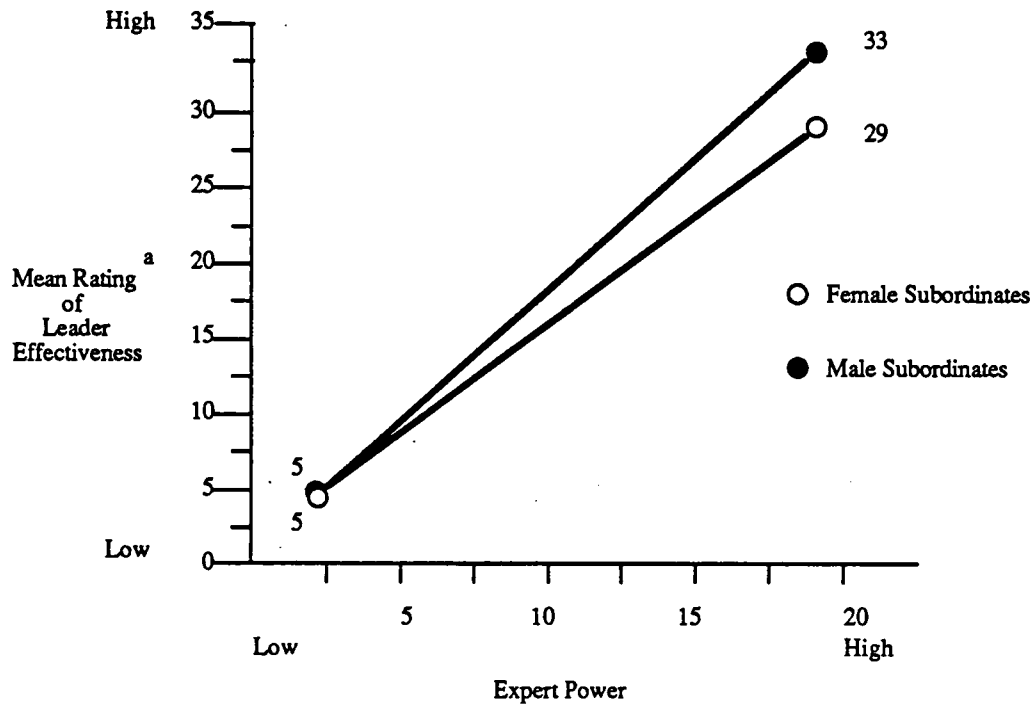


Figure 6. Mean Scores of Leader Effectiveness for Male and Female Subordinates Perceiving Leaders as Having Expert Power.

^a Scale values recoded. High scores represent high values of power.

Summary

In summary, post hoc analyses revealed that subordinate demographic variables did not have a significant relationship with subordinate ratings of leader effectiveness. Other analyses indicated that of the five perceived power subscales, only referent and expert power were found to be significantly related to ratings of leader effectiveness.

Analyses of the relationship between leader gender and perceived leader power indicated that female leaders were somewhat more likely to be perceived as having power than male leaders. This effect did not reach conventional levels of significance and dissipated when controlling for perceived leader effectiveness. Significant gender effects were, however, found for perceived expert power. Female leaders were significantly more likely to be perceived as having expert power than male leaders, even when controlling for perceived leader effectiveness.

Subordinate gender did not have a significant relationship with either perceived leader power or ratings of leader effectiveness. However, subordinate gender did significantly interact with leader gender; subordinates with leaders of the same gender were more likely to perceive their leaders as having power than subordinates with leaders of the opposite gender. Follow-up analyses revealed that these effects primarily occurred with expert power; subordinates with leaders of the same gender were more likely to perceive their leaders as having expert power than subordinates with leaders of the opposite gender.

The ramifications and implications of these findings are discussed in the following chapter.

CHAPTER IV

DISCUSSION

1. SUMMARY

The relationship between gender, perceived leader power and evaluations of leader effectiveness were investigated in a field survey study of 110 subordinates (55 male and 55 female) of 55 matched pairs of male and female supervisors in three organizations. To control for gender differences in leaders' positional power, leaders were matched by organizational level, department and, where possible, specialization.

Multiple regression analyses revealed support for the hypothesis that perceived leader power is more important than leader gender in subordinate evaluations of leader effectiveness. Counter to expectations, leader gender did not have a significant relationship with subordinate evaluations of leader effectiveness when holding perceived leader power constant. Support was not found for hypotheses regarding the gender-typing of perceived power; females using specific types of power did not receive significantly different evaluations than their male counterparts. In essence, leader gender was not found to be a significant factor in subordinate evaluations of leader effectiveness.

Post hoc analyses revealed that female leaders were more likely to be perceived as having expert power than male leaders, even when controlling for perceived leader effectiveness. Although subordinate gender did not have a significant main effect on either perceived power or ratings of leader effectiveness, subordinate gender did interact with leader gender; subordinates with leaders of the same gender were more likely to perceive their leaders as having power than subordinates with leaders of the opposite gender.

Follow-up analyses indicated that these effects primarily occurred with perceived expert power.

2. IMPLICATIONS FROM THE DATA

Theoretical Implications

The two primary findings in this study are that perceived leader power is a significant factor in subordinate evaluations of leader effectiveness and that ratings of female leaders may be influenced more by perceptions of power than by gender. Leader gender did not significantly influence subordinate ratings of leader effectiveness, even when holding perceived leader power constant. Moreover, there was a lack of support for the theory that power is gender-typed; male and female leaders received equivalent ratings for using the same types of power.

There are at least four theoretical implications that may be derived from these findings. The first is that subordinates' perception of a leader's power may be a more important factor in ratings of leader effectiveness than the sex-role stereotypes held by subordinates. Sex-role stereotypes have been found to be related to biased evaluations of females (e.g., Dipboye, Arvey & Terpstra, 1977; Dipboye, Fromkin & Wiback, 1975; Dipboye & Wiley, 1977; Cohen & Bunker, 1975) and have been implicitly used to explain gender differences in evaluations of leader effectiveness. The results of this study provide no support for this assumption. When power was held constant, female leaders did not receive significantly different evaluations from their male counterparts. One would not expect this finding if sex-role stereotypes were a primary factor in the evaluation of leader effectiveness. Although it is possible that the male and female subordinates participating in this study did not hold sex-role stereotypes, a more probable explanation for these findings is that the sex-role stereotypes were diluted with prolonged contact with powerful female leaders.

One topic for future investigation would be a direct comparison of the effects of subordinate's sex-role stereotypes and perceived leader power on ratings of leader effectiveness in a field setting.

The second implication of these findings relates to the gender congruency theory of leader power. This theory is based on the idea that subordinates use sex-role stereotypes to evaluate their leaders. According to the theory, leaders who are perceived as using types of power that are incongruent with sex-role stereotypes will receive lower evaluations than leaders who are perceived as using congruent forms of power. This study found no support for this theory; leaders who were perceived as using power received high evaluations, irrespective of the gender congruency of the type of power.

The third implication of these findings is that they may help to explain why the research on subordinate evaluations of female leaders has yielded such inconsistent findings over that last ten years. A re-examination of the research in this area reveals that gender differences in leadership evaluations were not found in studies that controlled for job level (e.g., Adams, 1978; Osborn & Vicars, 1976; Petty & Bruning, 1980; Rice, Instone & Adams, 1984; Terborg & Shingledecker, 1983). By controlling for job level, these researchers may have inadvertently controlled for some aspects of positional power. Along those same lines, the apparent discrepancy in findings from field and laboratory studies (cf. reviews by Dobbins & Platz, 1986; Osborn & Vicars, 1976) may be a function of differential control for leader power; field studies may be more likely to tap perceived leader power than laboratory studies. While leader power may be excluded in laboratory studies, it is implicitly embedded in field studies. In this sense, the findings of this study concur with Dobbins and Platz (1986) and Osborn and Vicars' (1976) conclusion that the research setting may be responsible for the inconsistent findings in this area. However, the research setting may be responsible only to the extent that it engenders different conditions of perceived leader power.

Researchers who fail to control for differences between the genders in power when comparing male and female leaders may essentially be comparing high-power with low-power groups. Since females tend to have less positional power than males in organizations, and are more likely to be clustered in low ranks and low-power departments (Kanter, 1977a; Halaby, 1977; Hill, 1980; Harlan & Weiss, 1982; Wolf & Fligstein, 1979), differences between the gender in leadership evaluations may reflect real differences in organizational power. Given that perceived power was found in this study to be strongly related to evaluations of leader effectiveness, there is a clear need to control for differential perceived leader power in future gender research in this area.

The final theoretical implication of this study concerns the effects of perceived power on evaluations of leader effectiveness. In this study, perceived leader power accounted for 59% of the variance in perceived leadership effectiveness. This finding indicates a need for further theory development and research on the function of perceived power in the leader-subordinate relationship. For example, it would be interesting to assess the relationship between leadership prototypes (e.g., Rush, Thomas & Lord, 1977) and "power prototypes". Power prototypes may be defined as some idealized cognitive image of a powerful individual. An area worth investigating here may be the relationship between leadership and power prototypes, and such demographic characteristics as age, gender, race, and physical characteristics.

Another related area for future research is the relationship between "power attributions", perceived power, and leadership evaluations. One research question that may be addressed is whether subordinates use the antecedents of power or the consequences of power when making power attributions about their leader's power. For example, does the leader have to exercise power to be perceived as having it, or is the potential to exercise power sufficient? Further, using Weiner's (1972) taxonomy as a template, power attributions may be internal or external. Given the research on gender differences in

attribution, (e.g., Cash, Gillen & Burns, 1977; Deaux & Emswiller, 1974; Etaugh & Brown, 1975; Feather & Simon, 1975; Taynor & Deaux, 1975), females may be expected to receive external power attributions (i.e., affirmative action), while males may receive internal power attributions (i.e., skill and ability).

Finally, it would be interesting to compare the congruency between power attributions made by a given leader and his or her subordinate. Along similar lines, it may be enlightening to assess the relationship between the subordinate's perception of a leader's power, the leader's perception of his or her own power, and objective measures of the leader's power. The effects of leader and subordinate gender on the congruency of these power attributions and perceptions may also be assessed.

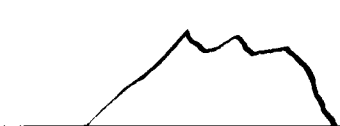
These topics for future investigation illuminate a major limitation of this study: the findings of this study have limited generalizability to subordinates' and leaders' behavior. A phenomenological approach was taken in this study in that both power and leadership effectiveness were investigated as perceptual constructs. Although perceptions of power were found to be related to perceptions of leadership effectiveness, no conclusion can be reached about behavioral manifestations. In other words, it remains for subsequent research to establish the link, if any, between subordinates' perception of leaders' effectiveness and power, and the leader's actual effectiveness and power. Although both power (Kaplowitz, 1978; Nagle, 1975; Provan, 1980) and leader theorists (Calder, 1977; Pfeffer, 1977) have taken the position that leadership and power are perceptual phenomenon that should be studied through the eyes of the subordinate, it would still be worthwhile to study the relationship between perception and behavior in this area, and to delineate the conditions under which perceptions become congruent with behaviors. The research conducted in the attitude theory area is an example of this research approach (cf., Deaux & Wrightsman, 1984).

The organizations used in this study also limit its generalizability. The research and development, weapons, and uranium enrichment organizations participating in this investigation were primarily male; only 15 of the 30 departments even had female supervisors, and there were only 70 salaried female supervisors and managers in the three facilities. The generalizability of the findings of this study to female leaders in gender-balanced or female-typed organizations is open to question. The female leaders in this sample may have faced certain barriers in attaining supervisory positions in a primarily male organization. Because of their scarcity, they represent a visible and salient minority that may face performance pressures associated with being in the "limelight" (cf. Kanter, 1977a, 1977b). Their ability to survive these barriers and pressures may represent a case of natural selection in the workplace; these women may be atypical of the female population as a whole and of female leaders in gender-balanced organizations. However, this sample may be generalizable to female managers, who are typically in the numerical minority in upper levels of organizations (Blau & Ferber, 1985).

Finally, the generalizability of this study may also be limited by the fact that female leaders in this study were, for the most part, college educated, and many had advanced degrees. The subordinates were also highly educated; nearly a third of the sample held advanced degrees. This highly educated sample may be atypical of other populations. To the extent that education may be related to increased acceptance of female leaders and an increased incidence of perceived expert power, the findings of this study may have limited applicability to a blue-collar workforce.

Applied Implications

In an applied sense, the findings of this study have both positive and negative implications. On the positive side, it is encouraging that female leaders in this study received equivalent ratings of leadership effectiveness as their male counterparts. Leader



gender accounted for only .3% of the variance in ratings of leader effectiveness; gender didn't just take a backseat to power, it wasn't even in the car. The message here may be that sex-role stereotypes and discriminatory attitudes may be overshadowed by a relatively long-term work relationship with a competent and powerful supervisor.

There is still another potentially positive ramification of these findings. If one makes the assumption that positive evaluations of leaders' effectiveness relates to subordinates' loyalty and support, given comparable leaders, female leaders may receive equivalent support from their subordinates as male leaders. By providing a loyal base of support, subordinates may increase their leader's power in the organization (Blackburn, 1981; Mechanic, 1962; Mowday, 1978; Weick, 1969). It has been theorized that power has the potential to be an upwardly spiralling function in the leader-subordinate relationship; increased leader power may lead to greater rewards and power for the subordinate, which may in turn increase subordinate's loyalty and their leader's power (Ragins & Sundstrom, 1987). If this "power begets power" hypothesis is true, the findings in this study may indicate that males and females *with equivalent power* may be equally likely to experience this upwardly spiralling power function. Female leaders having power may therefore be able to gain even more power in the organization.

However, on the negative side, females and males do not have equivalent power in organizations. Females are significantly less likely than males to hold powerful positions at upper levels in organizations (Kanter, 1977a; Halaby, 1977; Harlan & Weiss, 1982; Hill, 1980; Wolf & Fligstein, 1979). Females may therefore be more likely than males to experience a downward spiral of power; lack of leader power may erode the leader-subordinate relationship which may, in turn, decrease female leaders' power (Ragins & Sundstrom, 1987). Female leaders lacking power in organizations may therefore face a constant erosion of their resources for power.

In sum, while leader gender may not have a direct impact on evaluations of leader effectiveness, it may indirectly influence leader evaluations via gender differences in power in organizations. Organizational and interpersonal forces that limit female leaders' power in organizations may potentially have negative implications for the leader-subordinate relationship.

3. IMPLICATIONS FROM BEYOND THE DATA

The post hoc analyses revealed that female leaders were more likely to be perceived as having expert power than male leaders. Since the male and female leaders in this study were matched on variables assumed to be related to positional power (organizational level, department and specialization) it could be expected that female leaders, in the absence of distorted perceptions due to sex-role stereotypes, would be perceived as having equivalent positional power as male leaders. However, the male and female leaders in this study were not matched on personal forms of power -- referent power and expert power. Gender differences were not found with perceived referent power. One potential reason for this is that the perception of referent power may be based on characteristics of the subordinate that facilitate identification and role-modeling processes.

The finding that females were more likely to be perceived as having expert power than males is aligned with the finding that successful female executives tend to rely heavily upon expert power (Hennig & Jardim, 1977; Kane, Parsons and Associates, 1982; Keown & Keown, 1982). Compared to the other forms of power, expert power may be more likely to be under the direct control of the individual. Reward, coercive and legitimate power are associated with a position, and may be limited for female leaders (Harlan & Weiss, 1982; Hill, 1980; Kanter, 1977a; Wolf & Fligstein, 1979). Referent power may depend on the needs of the subordinate. Female leaders may rely upon expert power as a compensatory measure for the lack of access to other forms of power. This may have a positive impact for the female supervisor since expert power has been found to be

positively related to organizational effectiveness (Backman, Bowers & Marcus, 1968), and leadership evaluations (Podsakoff & Schreisheim, 1985).

Post hoc analyses also revealed that subordinate gender interacted with leader gender in perceptions of overall power and expert power; compared to subordinates with leaders of the opposite gender, subordinates with leaders of the same gender were more likely to perceive their leaders as having overall power and expert power. One implication of these findings is that since females tend to be clustered at lower levels in organizations (U.S. Department of Labor, 1979;1984), female managers may be less likely than male managers to have same-gender subordinates at upper levels of organizations, and may therefore be less likely to be perceived as having power. Although gender differences in perceived power did not approach conventional levels of significance in this study, it should be noted here that the balanced groups of male and female subordinates of male and female leaders used in this investigation may not be an accurate numerical representation of organizational realities.

4. CONCLUSIONS

In conclusion, perceived leader power is a critical factor in subordinate evaluations of leader effectiveness. Leaders who are perceived as powerful tend to also be perceived as being effective leaders. Moreover, given equivalent rank and position in organizations, leader gender may not, in itself, have a significant impact on subordinate evaluations of leader effectiveness. One potential implication of these findings is that gender equality in power in organizations may have a positive impact on leader-subordinate relationships.

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APPENDIXES

APPENDIX A

PRETEST RESULTS

Table A.1.

Pretest Descriptive Statistics for Perceived Power Items

Dimension	Item	Variable Name	Source	n	M ^a	SD	Item-total correlation ^b
Reward	My supervisor personally pays me a compliment when I do outstanding work.	REW1	LPI	50	2.86	1.81	.70
	My supervisor commends me when I do a better than average job.	REW2	LPI	50	2.78	1.71	.71
	My supervisor gives me special recognition when my work performance is especially good.	REW3	LPI	50	3.36	1.66	.74
	My supervisor rewards good work.	REW4 *	API	49	2.98	1.52	.80
	My supervisor gives credit where credit is due.	REW5 *	API	50	2.68	1.69	.79
	My supervisor offers inducements for good performance.	REW6	API	50	4.28	1.70	.54
	My supervisor recognizes achievement.	REW7 *	API	50	2.76	1.46	.72
	My supervisor is willing to use promotion as a reward for exceptional performance.	REW8	API	50	4.37	1.92	.60
Coercive	If my work was not up to par my supervisor would point it out to me.	COER1	LPI	50	2.18	1.33	.36
	My supervisor would reprimand me if my work was below standard.	COER2	LPI	50	2.84	1.68	.49
	My supervisor would let me know about it if I performed poorly.	COER3	LPI	50	2.26	1.26	.36
	My supervisor is overly critical.	COER4	API	50	5.22	1.84	.58
	My supervisor rules by might.	COER5 *	API	50	4.98	2.14	.72
	My supervisor is a disciplinarian.	COER6	API	50	4.64	1.96	.77
	My supervisor is retaliative.	COER7 *	API	48	4.56	2.17	.70
	My supervisor is strict.	COER8 *	API	50	4.28	2.10	.74

Table A.1. (continued)

Dimension	Item	Variable Name	Source	n	M ^a	SD	Item-total correlation ^b
Expert	My supervisor is highly skilled in all aspects of the tasks his or her subordinates perform.	EXP1	LPI	50	3.32	2.32	.70
	Nobody knows the job better in my department than my supervisor.	EXP2	LPI	50	3.96	2.02	.69
	Because of my supervisor's competence, I usually go along with his or her advice on how I should do my job	EXP3	LPI	50	2.88	1.41	.66
	My supervisor is very proficient.	EXP4 *	API	50	2.30	1.43	.73
	My supervisor is qualified to hold his or her position.	EXP5 *	API	50	2.08	1.55	.75
	My supervisor is very knowledgeable.	EXP6	API	50	2.16	1.36	.68
	My supervisor is experienced.	EXP7	API	50	2.02	1.24	.73
	I consider my supervisor to be very skilled.	EXP8 *	API	50	3.12	1.90	.83
Referent	My supervisor's enthusiasm is contagious.	REF1	LPI	50	3.82	1.83	.62
	My supervisor is my idea of a perfect manager.	REF2 *	LPI	50	4.26	1.96	.77
	My supervisor attracts a dedicate following.	REF3	LPI	50	3.76	1.80	.71
	My supervisor is a friendly person.	REF4	API	50	2.12	1.70	.63
	I admire my supervisor.	REF5 *	API	50	3.20	1.74	.81
	I respect my supervisor as a person.	REF6 *	API	50	2.38	1.82	.76
	My supervisor is a likable individual.	REF7	API	50	2.56	1.79	.68
	I identify with my supervisor.	REF8	API	50	4.02	1.85	.65

Table A.1 (continued)

Dimension	Item	Variable Name	Source	n	M ^a	SD	Item-total correlation ^b
Legitimate	My supervisor has the authority to tell me what to do.	LEG1 *	LPI	50	1.70	1.11	.68
	My supervisor has the right to tell me what to do.	LEG2 *	LPI	50	2.16	1.42	.80
	Considering her/his position, my boss has the right to expect that I will carry out the assignments she or he makes.	LEG3	LPI	50	1.58	.78	.48
	I am bound by duty to obey my supervisor.	LEG4	API	50	3.12	1.93	.57
	My supervisor has authority.	LEG5	API	50	1.98	1.10	.49
	I have an obligation to accept my supervisor's orders.	LEG6	API	50	2.54	1.64	.62
	My supervisor is entitled to direct my actions.	LEG7 *	API	50	2.48	1.40	.63
	My supervisor is authorized to command.	LEG8	API	49	2.88	1.81	.34

^a Means are based on a 7-point Likert rating scale, ranging from 1 (strongly agree) to 7 (strongly disagree).

^b Item-total correlations represent correlation between the item's score and the scale scores computed from the other items in the set.

^c Asterisks represent items selected from LISREL analysis for final instrument.

Table A.2.

Pretest Lisrel Results: Perceived Power.

Item	Lambda Initial / Final ^a	t value Initial/Final	Reliability Initial / Final
REW1	.71	5.55	.50
REW2	.77	6.22	.59
REW3	.78	6.42	.61
REW4 * ^b	.85 / .80	7.25 / 6.41	.72 / .63
REW5 *	.84 / .86	7.15 / 7.12	.71 / .74
REW6	.58	4.31	.34
REW7 *	.81 / .90	6.80 / 7.51	.66 / .80
REW8	.66	5.03	.43
COER1	.20	1.33	.04
COER2	.40	2.77	.16
COER3	.25	1.70	.06
COER4	.71	5.55	.51
COER5 *	.89 / .97	7.70 / 8.36	.79 / .95
COER6	.78	6.27	.60
COER7 *	.83 / .79	6.89 / 6.24	.68 / .62
COER8 *	.80 / .74	6.57 / 5.80	.64 / .55
EXPER1	.71	5.61	.51
EXPER2	.75	6.00	.56
EXPER3	.66	5.07	.44
EXPER4 *	.78 / .78	6.31 / 6.02	.60 / .60
EXPER5 *	.80 / .83	6.56 / 6.51	.63 / .68
EXPER6	.72	5.63	.51
EXPER7	.78	6.38	.61
EXPER8 *	.88 / .84	7.68 / 6.66	.77 / .71

Table A.2 (continued)

Item	Lambda Initial / Final	t value Initial/Final	Reliability Initial / Final
REF1	.65	4.04	.42
REF2 *	.85 / .84	7.19 / 6.95	.71 / .70
REF3	.71	5.56	.50
REF4	.60	4.46	.36
REF5 *	.88 / .91	7.63 / 7.79	.77 / .82
REF6 *	.84 / .84	7.06 / 7.02	.70 / .71
REF7	.66	5.10	.44
REF8	.73	5.82	.54
LEG1 *	.80 / .83	6.51 / 6.26	.65 / .70
LEG2 *	.85 / .81	7.12 / 6.09	.73 / .66
LEG3	.57	4.17	.33
LEG4	.60	4.40	.36
LEG5	.59	4.28	.34
LEG6	.62	4.56	.38
LEG7 *	.69 / .69	5.25 / 5.10	.48 / .48
LEG8	.44	3.04	.19

^a Initial estimates based on Congeneric Measurement Model using all 40 items.
Final estimates based on Congeneric Model of select 15 items.

^b Represents items selected from the pretest for use in the final instrument.

Table A.3.
Pretest Descriptive Statistics for Functional Power Items

Dimension	Item	Variable Name	n	M ^a	SD	Item-total correlation ^b
Functional Global	My supervisor uses his or her influence in the organization to provide for my work related needs.	FGLOB1	50	3.58	1.59	.57
	My supervisor meets my work-related needs.	FGLOB2	50	3.66	1.52	.53
	My supervisor uses his or her personal influence over others in the organization to provide for my work-related needs.	FGLOB3	49	4.10	1.66	.58
	My supervisor uses his or her position in the organization to provide for my work-related needs.	FGLOB4	50	4.00	1.62	.60
Functional Reward	My supervisor provides for my work-related needs by complimenting me on a job well done.	FREW1	50	3.40	1.48	.27
	My supervisor provides for my work-related needs by helping me advance in the organization.	FREW2 ^c	50	4.12	1.85	.65
	My supervisor provides for my work-related needs by assigning me desirable tasks.	FREW3 *	50	3.50	1.57	.57
	My supervisor provides for my work-related needs by rewarding me for effective performance.	FREW4 *	49	4.06	1.68	.71
	My supervisor provides for my work-related needs by recommending pay raises for effective performance.	FREW5	50	3.98	1.92	.47
Functional Coercive	My supervisor provides for my work-related needs by setting strict standards of performance.	FCOER1	49	3.90	1.81	.58
	My supervisor provides for my work-related needs by reprimanding my co-workers for inadequate performance.	FCOER2	49	4.61	1.82	.71
	My supervisor provides for my work-related needs by letting me know when my performance is not up to par.	FCOER3 *	47	3.64	1.71	.79

Table A.3. (Continued)

Dimension	Item	Variable Name	n	M ^a	SD	Item-total correlation ^b
Functional Expert	My supervisor provides for my work-related needs by reprimanding me for inadequate performance.	FCOER4 *	49	4.45	1.65	.69
	My supervisor provides for my work-related needs by letting my co-workers know when their performance is not up to par.	FCOER5 *	49	4.29	1.87	.77
	My supervisor's skills provides for my work-related needs.	FEXP1 *	50	3.80	1.44	.73
	My supervisor's experience provides for my work-related needs.	FEXP2 *	49	3.65	1.38	.72
	My supervisor provides for my work-related needs by being an expert in his or her field.	FEXP3 *	50	3.42	1.67	.73
Functional Referent	My supervisor provides for my work-related needs by being recognized as knowledgeable and qualified by members of the organization.	FEXP4	50	3.26	1.70	.64
	My admiration for my supervisor provides for my work-related needs.	FREF1 *	50	4.46	1.75	.84
	My respect for my supervisor provides for my work-related needs.	FREF2 *	50	4.12	1.80	.78
	My interpersonal relationship with my supervisor provides for my work-related needs.	FREF3	49	3.98	1.55	.63
	My personal liking of my supervisor provides for my work-related needs.	FREF4	50	3.58	1.68	.70
	My identification with my supervisor provides for my work-related needs.	FREF5 *	50	4.20	1.76	.79

Table A.3 (continued)

Dimension	Item	Variable Name	N	M ^a	SD	Item-total correlation ^b
Functional Legitimate	My supervisor provides for my work-related needs by increasing my status in the organization.	FLEG1 *	50	4.24	1.67	.56
	My supervisor provides for my work-related needs by being authorized to command.	FLEG2	50	3.98	1.71	.51
	My supervisor provides for my work-related needs by providing me with visibility in the organization.	FLEG3 *	49	3.69	1.67	.64
	My supervisor provides for my work-related needs by being in a position of authority in the organization.	FLEG4 *	44	3.39	1.70	.53
	My supervisor provides for my work-related needs by standing up for me in front of others	FLEG5	50	3.72	1.66	.34

^a Means are based on a 7-point Likert rating scale, ranging from 1 (strongly agree) to 7 (strongly disagree)

^b Item - total correlations represent correlation between the item's score and the scale scores computed from the other items in the set.

^c Astericks represent items selected from LISREL analysis for final instrument.

Table A.4.

Pretest Lisrel Results: Functional Power

Item	Lambda Initial / Final ^a	t value Initial / Final	Reliability Initial / Final
FGLOB1	.66	4.52	.44
FGLOB2	.61	4.08	.37
FGLOB3	.70	4.80	.48
FGLOB4	.71	5.01	.53
FREW1	.32	2.10	.10
FREW2 * ^b	.79 / .76	5.93 / 7.85	.63 / .62
FREW3 *	.69 / .76	4.97 / 7.85	.47 / .53
FREW4 *	.79 / .76	5.88 / 7.85	.62 / .56
FREW5	.55	3.84	.31
FCOER1	.64	4.74	.40
FCOER2	.76	6.073	.58
FCOER3 *	.85 / .83	7.07 / 8.53	.72 / .75
FCOER4 *	.77 / .83	6.12 / 8.53	.59 / .66
FCOER5 *	.84 / .83	6.91 / 8.53	.70 / .61
FEXP1 *	.87 / .85	7.27 / 8.71	.76 / .74
FEXP2 *	.87 / .85	7.24 / 8.71	.76 / .79
FEXP3 *	.72 / .85	5.57 / 8.71	.52 / .47
FEXP4	.63	4.70	.40
FREF1 *	.96 / .92	8.91 / 9.32	.92 / .91
FREF2 *	.91 / .92	8.09 / 9.32	.82 / .84
FREF3	.58	4.32	.33
FREF4	.70	5.48	.48
FREF5 *	.79 / .92	6.49 / 9.32	.62 / .58

Table A.4 (continued)

Item	Lambda Initial / Final ^a	t value Initial /Final	Reliability Initial / Final
FLEG1 *	.72 / .73	5.18 / 7.50	.52 / .52
FLEG2	.49	3.28	.24
FLEG3 *	.85 / .73	6.19 / 7.50	.71 / .65
FLEG4 *	.56 / .73	3.84 / 7.50	.31 / .29
FLEG5	.44	2.94	.19

a Initial estimates based on Congeneric Measurement Model using all 28 items.
Final estimates based on Parallel Measurement Model of select 15 items.

b Represents items selected from pretest for use in final instrument.

Table A.5. Coefficient Alphas for Perceived Power and Functional Power Pretest Items

Power Dimension	Perceived Power		Functional Power	
	All Items	Select Items ^a	All Items	Select Items
Reward	.90	.88	.76	.80
Coercive	.86	.87	.88	.86
Expert	.91	.85	.86	.84
Referent	.91	.89	.90	.91
Legitimate	.83	.81	.75	.72
Total ^b	.90 (40)	.75 (15)	.95 (28)	.93 (15)

^a Select items are the three pretest items selected by LISREL analyses

^b Represents the entire instrument. Numbers in parentheses are the number of items.

Table A.6
Pretest Descriptive Statistics for Leadership Evaluation Items

Dimension	Item	Variable Name	n	M ^a	SD	Item-total correlation ^b
Global	My supervisor is an effective leader.	G1	50	2.82	1.67	.89
	My supervisor displays effective leader behaviors.	G2	50	2.90	1.56	.80
	My supervisor displays strong leadership abilities.	G3	50	3.24	1.77	.88
	My supervisor is one of the best leaders I have ever had.	G4	50	3.74	2.13	.87
	My supervisor is one of the best leaders in my organization.	G5	50	3.70	2.07	.86
Consideration	My supervisor is friendly and approachable.	CON1	50	2.30	1.47	.48
	My supervisor is concerned about my well being.	CON2	50	2.76	1.36	.82
	My supervisor will go out of his or her way to help me.	CON3	50	2.80	1.55	.82
	My supervisor will stand up for me in front of others.	CON4	50	3.00	1.56	.75
	My supervisor encourages me to express my ideas and opinions.	CON5	50	2.62	1.75	.77
Motivation	My supervisor motivates me.	MOT1	50	3.20	1.65	.69
	My supervisor sets achievable goals.	MOT2	50	2.34	1.17	.56
	My supervisor doesn't ask more of me than I can give.	MOT3	50	2.82	1.66	.55
	My supervisor rewards me when I do a good job.	MOT4	50	3.56	1.58	.66
	My supervisor encourages me to do my best.	MOT5	50	2.36	1.24	.74
	My supervisor gives me feedback on my performance.	MOT6	50	2.86	1.82	.65
Functional	My supervisor helps me achieve my goals.	FUNC1	50	3.00	1.51	.77
	My supervisor helps me get the job done.	FUNC2	50	3.00	1.31	.64

Table A.6 (Continued).

Dimension	Item	Variable Name	n	M	SD	Item-total correlation
Power	My supervisor helps my work group achieve its goals.	FUNC3	50	3.12	1.46	.75
	My supervisor contributes to my effective job performance.	FUNC4	50	3.00	1.58	.68
	My supervisor contributes to the effectiveness of my work group.	FUNC5	50	3.20	1.37	.70
	My supervisor uses his or her influence in the organization for my benefit.	POW1	50	3.52	1.39	.59
	My supervisor uses his or her influence in the organization to help my work group.	POW2	49	3.29	1.44	.75
	My supervisor uses his or her influence in the organization to get needed resources for our work group.	POW3	50	3.00	1.47	.77
	My supervisor effectively influences his/her subordinates.	POW4	50	3.12	1.45	.66
	My supervisor effectively uses his or her influence over others to get the job done.	POW5	50	3.04	1.18	.68
Delegation	My supervisor assigns the right people to the right task.	DEL1	50	3.26	1.65	.79
	My supervisor may change a task to fit the skills and ability of the individual.	DEL2	50	3.26	1.61	.53
	My supervisor makes sure that I have the skills and abilities necessary to do a task before assigning it to me.	DEL3	50	2.84	1.33	.68
	My supervisor delegates tasks effectively.	DEL4	49	2.82	1.76	.84
	My supervisor knows when to delegate and when to do the job him/ herself.	DEL5	50	2.84	1.64	.78
Planning	My supervisor is an effective planner.	PLAN1	49	3.00	1.54	.81
	My supervisor decides what should be done and how it should be done.	PLAN2	50	2.76	1.36	.58

Table A.6 (Continued).

Dimension	Item	Variable Name	n	M ^a	SD	Item-total correlation ^b
Decision Making	My supervisor schedules work activities.	PLAN3	50	3.32	1.63	.53
	My supervisor lets me know what is expected of me.	PLAN4	49	2.51	1.37	.63
	My supervisor plans ahead.	PLAN5	49	3.06	1.81	.80
	My supervisor generally makes good decisions.	DEC1	50	2.80	1.47	.82
	My supervisor effectively implements decisions.	DEC2	50	3.00	1.69	.85
	My supervisor effectively uses input from subordinates in making decisions.	DEC3	50	3.16	1.66	.73
	My supervisor can make tough decisions when necessary.	DEC4	50	2.68	1.52	.60
	My supervisor knows when to ask for input in decision making and when to make decisions by him/herself.	DEC5	50	2.88	1.76	.73
Problem Solving	My supervisor anticipates problems before they occur.	PROB1	50	3.16	1.59	.67
	My supervisor handles problems in a calm and rational manner.	PROB2	50	2.60	1.61	.61
	My supervisor effectively analyzes problems.	PROB3	50	2.96	1.62	.78
	My supervisor is an effective problem solver.	PROB4	50	2.96	1.46	.80
	My supervisor effectively consults with others when solving problems.	PROB5	50	3.04	1.71	.76

Table A.6 (Continued).

Dimension	Item	Variable Name	n	M ^a	SD	Item-total correlation ^b
Team Building	My supervisor effectively settles conflicts among co-workers.	TEAM1	50	3.70	1.64	.74
	My supervisor can get people to work together as a team.	TEAM2	50	3.10	1.73	.85
	My supervisor can get every member of a work group to contribute.	TEAM3	50	3.22	1.76	.90
	My supervisor can gain commitment from members of a work group.	TEAM4	50	2.90	1.51	.80
	My supervisor can effectively focus work groups.	TEAM5	50	3.04	1.54	.84

^a Means are based on a 7-point Likert rating scale, ranging from 1 (strongly agree) to 7 (strongly disagree)

^b Item-total correlations represent the correlation between the item's score and the scale scores computed from the other items.

Table A.7.

Coefficient Alphas for Leadership Evaluation Pretest Items

Leadership Dimension	Alpha	Number of Items
Global	.95	5
Consideration	.88	5
Motivation	.85	6
Functional	.88	5
Power	.87	5
Delegation	.88	5
Planning	.85	5
Decision Making	.89	5
Problem Solving	.88	5
Team Building	.93	5
Total (Global and Specific Dimensions)	.98	51

Table A.8.

Intercorrelations Among Pretest Perceived Power and Functional Power Items: Variables REW1 through COER3

Item	1	2	3	4	5	6	7	8	9	10	11
1. REW1	1.00										
2. REW2	.61**	1.00									
3. REW3	.63**	.65**	1.00								
4. REW4	.62**	.61**	.68**	1.00							
5. REW5	.52**	.68**	.60**	.68**	1.00						
6. REW6	.47**	.50**	.58**	.47**	.47**	1.00					
7. REW7	.51**	.63**	.61**	.71**	.77**	.36	1.00				
8. REW8	.44*	.35	.45*	.65**	.64**	.37*	.51**	1.00			
9. COER1	.23	.20	.12	.14	.40*	.14	.35	.26	1.00		
10. COER2	.07	-.06	-.07	-.10	.12	.01	-.05	.11	.58**	1.00	
11. COER3	-.10	-.02	-.03	-.07	.22	-.06	.28	.19	.68**	.49**	1.00
12. COER4	-.16	-.26	-.18	-.30	-.40*	-.01	-.47**	-.23	.12	.18	.05
13. COER5	-.29	-.46**	-.19	-.39*	-.52**	-.03	-.46**	-.09	-.01	.25	.10
14. COER6	-.05	-.29	.05	-.16	-.07	.05	-.12	.13	.35	.42*	.42*
15. COER7	-.07	-.27	-.06	-.24	-.33	.08	-.30	.02	.06	.34	.10
16. COER8	-.23	-.39*	-.15	-.35	-.27	-.08	-.29	-.06	.29	.36	.30
17. EXPER1	.24	.37*	.27	.37*	.54**	.33	.41*	.26	.30	.19	.14
18. EXPER2	.24	.30	.35	.38*	.37*	.43*	.27	.38*	.25	.12	.21
19. EXPER3	.13	.22	.15	.26	.45*	.12	.38*	.12	.38*	.03	.36*
20. EXPER4	.17	.48**	.35	.43*	.55**	.46**	.53**	.43*	.36	.14	.38*
21. EXPER5	.19	.40*	.35	.41*	.55**	.17	.58**	.27	.38*	.15	.30
22. EXPER6	.30	.59**	.40*	.38*	.47**	.25	.41*	.17	.15	-.02	.07
23. EXPER7	.09	.22	.19	.23	.41*	.32	.41*	.30	.46**	.27	.39*
24. EXPER8	.40*	.44*	.50**	.45*	.50**	.47**	.45*	.37*	.33	.14	.25
25. REF1	.23	.35	.38*	.33	.49**	.38*	.43*	.42*	.21	.12	.24
26. REF2	.37*	.48**	.37*	.43*	.60**	.34	.54**	.55**	.28	.24	.23
27. REF3	.16	.47**	.35	.27	.57**	.28	.47**	.43*	.34	.18	.41*
28. REF4	.27	.57**	.41*	.42*	.54**	.20	.44*	.21	-.06	-.10	.01
29. REF5	.39*	.50**	.34	.47**	.65**	.34	.62**	.41*	.26	.14	.17
30. REF6	.30	.55**	.33	.28	.66**	.26	.54**	.31	.34	.27	.25
31. REF7	.32	.63**	.36	.38	.59**	.26	.43*	.25	-.04	-.08	-.07
32. REF8	.26	.42*	.17	.28	.47**	.31	.42*	.31	.24	.21	.21
33. LEG1	.02	.16	.07	-.02	.18	.10	.12	.07	.05	.15	.03
34. LEG2	-.04	.07	.10	-.10	.04	.11	-.10	-.15	-.06	-.01	-.02
35. LEG3	-.11	.13	.10	.06	.08	.15	.21	.19	-.10	-.10	.18
36. LEG4	-.11	.11	-.01	-.06	-.06	.08	-.16	-.17	-.01	.11	.05
37. LEG5	-.10	.08	.17	.04	.30	.29	.16	.29	.09	.18	.17
38. LEG6	-.05	.17	.07	-.04	.05	.25	-.03	-.04	.03	.14	.14
39. LEG7	-.11	.02	-.12	-.19	-.01	-.01	-.01	-.20	.07	.13	.15
40. LEG8	-.11	-.13	.04	-.27	-.23	.14	-.28	-.25	-.01	.03	.01
41. FGLOBAL1	.26	.02	.38*	.16	.22	.38*	.32	.33	.15	.03	.19
42. FGLOBAL2	.41*	.25	.53**	.39*	.44*	.29	.45*	.48**	.15	.16	.07
43. FGLOBAL3	.24	.31	.30	.03	.09	.22	.03	.24	.15	.15	.07
44. FGLOBAL4	.38*	.14	.23	.27	.28	.23	.28	.41*	.29	.09	.12
45. FREW1	.51**	.58**	.58**	.51**	.58**	.45*	.48**	.51**	.24	.18	-.07
46. FREW2	.30	.15	.33	.23	.37*	.13	.27	.56**	.26	.13	.29
47. FREW3	.39*	.23	.38*	.28	.25	.15	.29	.25	.15	.06	-.03
48. FREW4	.40*	.39*	.50**	.33	.37*	.31	.35	.47**	.11	-.08	-.02
49. FREW5	.27	.29	.23	.24	.26	.33	.25	.48**	.11	-.06	.09
50. FCOER1	.15	-.01	.19	.05	.17	.14	.23	.22	.46**	.37*	.30
51. FCOER2	.20	.15	.23	.08	.16	.17	.14	.22	.27	.31	.25
52. FCOER3	.51**	.27	.49**	.33	.46*	.42*	.41*	.52**	.53**	.44*	.40*
53. FCOER4	.35	.25	.42*	.16	.24	.32	.05	.30	.36	.35	.34
54. FCOER5	.24	.11	.21	.08	.20	.19	.21	.30	.31	.30	.27
55. FEXP1	.40*	.46**	.47**	.34	.36	.41*	.31	.38*	.16	.05	.14
56. FEXP2	.44*	.42*	.47**	.32	.31	.49**	.22	.33	.20	.09	.08
57. FEXP3	.31	.37*	.37*	.34	.50**	.37*	.52**	.43*	.20	-.04	.20
58. FEXP4	.16	.25	.22	.28	.48**	.26	.44*	.44*	.22	.09	.31
59. FREF1	.45**	.44*	.47**	.44*	.56**	.46**	.39*	.56**	.23	.21	.11
60. FREF2	.31	.35	.35	.37*	.57**	.37*	.39*	.59**	.32	.23	.17
61. FREF3	.47**	.52**	.50**	.32	.45*	.26	.47*	.23	.37*	.14	.11
62. FREF4	.44*	.43*	.44*	.40*	.58**	.46**	.45*	.40*	.40*	.21	.19
63. FREF5	.62**	.52**	.49**	.38*	.54**	.52**	.40*	.50**	.21	.14	-.02
64. FLEG1	.32	.24	.42*	.23	.45*	.33	.37*	.42*	.23	.12	.11
65. FLEG2	.04	.02	.13	-.03	.04	.18	-.01	.19	-.04	.11	.17
66. FLEG3	.21	.21	.40*	.31	.31	.22	.38*	.41*	.13	-.06	.15
67. FLEG4	-.11	-.01	.12	.02	-.02	.25	.04	.15	-.12	-.01	.05
68. FLEG5	.48**	.24	.27	.37*	.26	.29	.36	.37*	.06	.25	.14

Note: n = 50 ** p < .001 * p < .01

Table A.9.

Intercorrelations Among Pretest Perceived Power and Functional Power Items: Variables COER4 through EXPER6

Item	12	13	14	15	16	17	18	19	20	21	22
1. REW1											
2. REW2											
3. REW3											
4. REW4											
5. REW5											
6. REW6											
7. REW7											
8. REW8											
9. COER1											
10. COER2											
11. COER3											
12. COER4	1.00										
13. COER5	.69**	1.00									
14. COER6	.45**	.65**	1.00								
15. COER7	.67**	.77**	.62**	1.00							
16. COER8	.50**	.72**	.72**	.58**	1.00						
17. EXPER1	-.07	-.23	.08	-.13	-.15	1.00					
18. EXPER2	-.10	-.08	.07	-.16	.09	.49**	1.00				
19. EXPER3	-.11	-.26	.10	-.26	-.03	.69**	.46**	1.00			
20. EXPER4	-.15	-.18	.08	-.06	-.03	.53**	.56**	.52**	1.00		
21. EXPER5	-.40*	-.39*	-.01	-.33	-.19	.60**	.45*	.55**	.64**	1.00	
22. EXPER6	-.24	-.28	-.05	-.33	-.21	.53**	.50**	.49**	.52**	.59**	1.00
23. EXPER7	-.21	-.12	.15	-.23	-.03	.50**	.60**	.48**	.69**	.68**	.51**
24. EXPER8	-.21	-.23	.09	-.14	-.12	.60**	.78**	.51**	.65**	.70**	.66**
25. REF1	-.28	-.22	-.02	-.09	-.05	.36*	.61**	.33	.48**	.45**	.36
26. REF2	-.41*	-.27	.09	-.09	-.15	.48**	.51**	.29	.47**	.54**	.52**
27. REF3	-.31	-.28	.05	-.22	-.27	.34	.34	.37*	.45*	.53**	.44*
28. REF4	-.50**	-.54**	-.35	-.44*	-.49**	.19	.27	.22	.29	.48**	.47**
29. REF5	-.41*	-.39*	-.10	-.27	-.26	.49**	.46**	.43*	.48**	.68**	.56**
30. REF6	-.32	-.43*	-.07	-.28	-.25	.52**	.34	.29	.47**	.68**	.46**
31. REF7	-.50**	-.63**	-.45*	-.53**	-.53**	.22	.24	.17	.24	.35	.44*
32. REF8	-.37*	-.28	.02	-.24	-.19	.64**	.51**	.51**	.47**	.53**	.57**
33. LEG1	-.11	-.01	.03	.01	.18	.18	.19	.15	.26	.20	.34
34. LEG2	.06	.06	.10	.02	.16	.13	.30	.21	.20	.13	.46**
35. LEG3	-.25	.02	.15	.04	.10	.08	.29	.18	.50**	.25	.31
36. LEG4	.21	.10	.03	-.01	.01	.20	.30	.28	.34	.26	.47**
37. LEG5	-.12	.08	.15	.00	.19	.24	.31	.10	.41*	.24	.21
38. LEG6	.07	.02	-.03	-.01	-.03	.23	.38*	.21	.36	.30	.48**
39. LEG7	-.02	-.06	.12	.08	.13	.29	.22	.46**	.30	.27	.32
40. LEG8	.19	.32	.47**	.32	.306	-.06	-.02	.08	-.14	-.19	.08
41. FGLOB1	.03	.28	.42*	.20	.21	.15	.20	.13	.26	.12	.20
42. FGLOB2	-.16	-.02	.29	.07	.03	.37*	.32	.13	.11	.31	.17
43. FGLOB3	.18	.30	.26	.22	.21	.06	.32	-.01	.07	.07	.24
44. FGLOB4	-.20	.05	.21	.07	.22	.23	.43*	.32	.19	.29	.20
45. FREW1	-.14	-.13	-.05	-.04	-.18	.27	.14	.11	.24	.23	.23
46. FREW2	-.12	-.04	.25	.06	.05	.20	.29	.16	.14	.31	.17
47. FREW3	-.16	-.14	.07	-.03	-.16	.01	.08	-.09	-.10	.23	.18
48. FREW4	.02	-.02	.09	.02	-.03	.20	.39*	.19	.25	.29	.14
49. FREW5	-.09	-.11	-.01	-.08	-.11	.11	.21	-.14	.23	.11	-.03
50. FCOER1	.29	.37*	.53**	.34	.58**	.16	.12	.11	.21	.16	.10
51. FCOER2	.19	.27	.38*	.32	.30	.24	.20	.12	.06	.18	.19
52. FCOER3	.13	.21	.49**	.28	.37	.30	.37	.27	.40*	.27	.23
53. FCOER4	.32	.25	.46**	.30	.31	.25	.28	.24	.25	.13	.23
54. FCOER5	.06	.24	.41*	.25	.42*	.18	.24	.09	.07	.11	.04
55. FEXP1	-.14	-.05	.14	.01	-.01	.38*	.55**	.30	.38*	.30	.44*
56. FEXP2	-.01	-.03	.19	-.01	.01	.31	.48**	.27	.38*	.25	.47**
57. FEXP3	-.22	-.10	.20	-.16	-.02	.55**	.39*	.45*	.48**	.41*	.46**
58. FEXP4	-.34	-.14	.16	-.12	.10	.37*	.44*	.48**	.60**	.43*	.37*
59. FREF1	-.20	-.21	.08	-.10	-.11	.47**	.66**	.25	.34	.41*	.38*
60. FREF2	-.19	-.16	.14	-.09	-.12	.51**	.53**	.26	.34	.38*	.28
61. FREF3	-.14	-.31	-.04	-.08	-.18	.41*	.34	.29	.29	.43*	.27
62. FREF4	-.31	-.42*	-.06	-.21	-.22	.27	.42*	.15	.22	.27	.17
63. FREF5	-.14	-.17	.03	-.04	-.10	.48**	.50**	.27	.39*	.31	.33
64. FLEG1	-.11	-.06	.09	.06	-.02	.29	.26	.11	.11	.26	.12
65. FLEG2	-.01	.21	.42*	.21	.27	.21	.30	.18	.16	.09	.13
66. FLEG3	-.13	-.02	.15	.03	-.06	.24	.35	.30	.25	.38*	.07
67. FLEG4	-.05	.22	.24	.10	.24	.23	.52**	.21	.31	.12	.20
68. FLEG5	-.15	-.09	-.01	.14	.05	.24	.40*	.19	.25	.29	.09

Note: n = 50 ** p < .001 * p < .01

Table A.10

Intercorrelations Among Pretest Perceived Power and Functional Power Items: Variables *EXPER7* through *LEG1*

Item	23	24	25	26	27	28	29	30	31	32	33
1. REW1											
2. REW2											
3. REW3											
4. REW4											
5. REW5											
6. REW6											
7. REW7											
8. REW8											
9. COER1											
10. COER2											
11. COER3											
12. COER4											
13. COER5											
14. COER6											
15. COER7											
16. COER8											
17. EXPER1											
18. EXPER2											
19. EXPER3											
20. EXPER4											
21. EXPER5											
22. EXPER6											
23. EXPER7	1.00										
24. EXPER8	.66**	1.00									
25. REF1	.39*	.60**	1.00								
26. REF2	.45*	.66**	.59**	1.00							
27. REF3	.47**	.51**	.56**	.62**	1.00						
28. REF4	.23	.36*	.45*	.41*	.59**	1.00					
29. REF5	.50**	.63**	.60**	.76**	.57**	.46**	1.00				
30. REF6	.43*	.53**	.43*	.71**	.55**	.46**	.76**	1.00			
31. REF7	.17	.31	.43*	.42*	.52**	.86**	.55**	.58**	1.00		
32. REF8	.47**	.60**	.41*	.68**	.47**	.31	.65**	.66**	.44*	1.00	
33. LEG1	.17	.27	.38*	.34	.13	.11	.33	.23	.11	.26	1.00
34. LEG2	.20	.40*	.21	.21	.06	.11	.13	.04	.08	.16	.68**
35. LEG3	.24	.36*	.20	.39*	.26	.15	.26	.17	.07	.34	.56**
36. LEG4	.32	.38*	.34	.10	.20	.06	.20	.06	-.01	.16	.39*
37. LEG5	.36*	.30	.47**	.41*	.32	.11	.28	.29	.13	.29	.65**
38. LEG6	.37*	.48**	.48**	.22	.31	.19	.24	.14	.10	.21	.41*
39. LEG7	.22	.34	.38*	.31	.07	-.02	.34	.26	.00	.37*	.58**
40. LEG8	-.05	.09	-.04	-.01	.11	-.12	-.16	-.21	-.22	-.05	.23
41. FGLOB1	.23	.32	.18	.29	.20	-.09	.13	.07	-.18	.04	.11
42. FGLOB2	.16	.42*	.32	.54**	.30	.19	.31	.34	.16	.36	.07
43. FGLOB3	.06	.31	.18	.29	.25	.09	.08	.18	.04	.15	.07
44. FGLOB4	.25	.43*	.35	.33	.08	-.01	.25	.08	-.11	.27	.12
45. FREW1	.17	.19	.37*	.27	.33	.30	.30	.27	.30	.26	.14
46. FREW2	.20	.39*	.22	.51**	.35	.13	.27	.36*	.07	.22	-.09
47. FREW3	-.01	.29	.03	.36	.19	.04	.33	.32	.08	.17	-.11
48. FREW4	.17	.42*	.37*	.36	.36	.28	.33	.31	.25	.19	-.15
49. FREW5	.18	.16	.06	.25	.19	.03	.20	.30	.14	.10	-.20
50. FCOER1	.25	.22	.03	.19	.04	-.20	.02	.09	-.20	.09	.26
51. FCOER2	.06	.35	.28	.37*	.29	.06	.12	.20	-.04	.18	.15
52. FCOER3	.36	.46*	.27	.25	.20	.01	.23	.21	-.03	.22	.22
53. FCOER4	.15	.33	.13	.09	.25	.14	-.10	.07	.02	.06	.04
54. FCOER5	.11	.19	.19	.23	.07	-.09	.04	.13	-.11	.11	.08
55. FEXP1	.34	.61**	.37*	.55**	.44*	.25	.29	.22	.19	.35	.01
56. FEXP2	.39*	.55**	.19	.36	.31	.15	.19	.17	.11	.26	-.01
57. FEXP3	.51**	.43*	.31	.45**	.33	.07	.34	.34	.06	.46**	.09
58. FEXP4	.49**	.481**	.45*	.46**	.45**	.10	.39*	.23	.07	.47**	.18
59. FREF1	.42*	.64**	.49**	.70*	.43*	.25	.58**	.52**	.30	.49**	.10
60. FREF2	.48**	.53**	.40*	.64**	.42*	.12	.53**	.52**	.20	.53**	.10
61. FREF3	.25	.49**	.48**	.42*	.37*	.31	.42*	.46**	.35	.37*	.05
62. FREF4	.31	.51**	.35	.52**	.40*	.33	.47**	.48**	.50**	.39*	-.02
63. FREF5	.38*	.55**	.36	.55**	.31	.24	.46**	.44*	.33	.48**	.24
64. FLEG1	.19	.38*	.32	.47**	.30	.08	.39*	.39*	.13	.18	-.09
65. FLEG2	.16	.30	.26	.39*	.26	.05	.13	.11	-.06	.13	.19
66. FLEG3	.27	.37*	.33	.31	.31	.19	.26	.22	.06	.25	-.29
67. FLEG4	.36	.31	.38	.16	.12	-.03	.03	-.13	-.15	.12	.10
68. FLEG5	.08	.44*	.35	.34	.04	.06	.32	.17	.03	.33	.01

Note: $n = 50$ ** $p < .001$ * $p < .01$

Table A.11
Intercorrelations Among Pretest Perceived Power and Functional Power Items: Variables LEG2 through FGLOB4

Item	34	35	36	37	38	39	40	41	42	43	44
1. REW1											
2. REW2											
3. REW3											
4. REW4											
5. REW5											
6. REW6											
7. REW7											
8. REW8											
9. COER1											
10. COER2											
11. COER3											
12. COER4											
13. COER5											
14. COER6											
15. COER7											
16. COER8											
17. EXPER1											
18. EXPER2											
19. EXPER3											
20. EXPER4											
21. EXPER5											
22. EXPER6											
23. EXPER7											
24. EXPER8											
25. REF1											
26. REF2											
27. REF3											
28. REF4											
29. REF5											
30. REF6											
31. REF7											
32. REF8											
33. LEG1											
34. LEG2	1.00										
35. LEG3	.48**	1.00									
36. LEG4	.53**	.18	1.00								
37. LEG5	.45*	.42*	.25	1.00							
38. LEG6	.52**	.24	.75**	.31	1.00						
39. LEG7	.57**	.39*	.48**	.32	.46**	1.00					
40. LEG8	.55**	.27	.13	.16	.18	.30	1.00				
41. FGLOB1	.17	.26	-.04	.22	-.02	-.01	.29	1.00			
42. FGLOB2	-.01	.08	-.24	.25	-.13	-.04	.10	.45*	1.00		
43. FGLOB3	.14	.11	.07	.10	.03	.01	.27	.48**	.36	1.00	
44. FGLOB4	.01	.13	-.05	.03	.01	.12	.11	.44*	.46**	.53**	1.00
45. FREW1	-.13	-.15	.07	.11	.14	-.14	-.16	.19	.37*	.28	.32
46. FREW2	-.04	.04	-.17	.11	-.06	-.06	.06	.47**	.56**	.54**	.51**
47. FREW3	-.16	-.08	-.21	-.07	-.16	-.11	.01	.37*	.56**	.45*	.36*
48. FREW4	-.17	-.03	-.05	-.01	-.02	-.13	-.09	.39*	.56**	.58**	.47**
49. FREW5	-.31	.04	-.35	-.04	-.32	-.34	-.19	.26	.35	.27	.18
50. FCOER1	.14	.16	-.02	.28	-.06	.02	.12	.51**	.40*	.31	.32
51. FCOER2	.06	.08	.11	.12	.14	.19	.16	.41*	.53**	.54**	.41*
52. FCOER3	.02	.16	-.05	.21	.04	.02	.09	.51**	.49**	.44*	.56**
53. FCOER4	.13	.04	.07	.12	.15	-.01	.26	.42*	.30	.59**	.36
54. FCOER5	-.12	.04	-.21	.13	-.09	.05	.07	.48**	.56**	.57**	.63**
55. FEXP1	.26	.25	.16	.15	.23	.04	.27	.40*	.55**	.52**	.51**
56. FEXP2	.23	.21	.14	.02	.30	.01	.34	.48**	.40*	.47**	.48**
57. FEXP3	-.02	.22	.01	.26	.05	.08	-.01	.59**	.48**	.36	.53**
58. FEXP4	.09	.36	.14	.34	.19	.16	.05	.38*	.33	.18	.47**
59. FREF1	.05	.08	.04	.24	.15	.06	-.02	.33	.67**	.46**	.53**
60. FREF2	-.05	.05	-.02	.24	.05	.07	-.08	.29	.60**	.36	.44*
61. FREF3	-.13	-.10	.06	.03	.05	.06	-.15	.15	.35	.41*	.35
62. FREF4	-.015	.03	-.17	.06	.02	-.13	-.03	.15	.40*	.21	.29
63. FREF5	.04	.17	.03	.22	.02	.01	-.08	.36	.54**	.49**	.55**
64. FLEG1	-.12	-.12	-.17	.11	-.09	-.08	-.03	.52**	.68**	.44*	.45*
65. FLEG2	.28	.34	.09	.26	.16	.30	.49**	.52**	.42*	.52**	.39*
66. FLEG3	-.27	-.04	-.10	-.02	-.12	-.11	-.15	.36	.58**	.45*	.50**
67. FLEG4	.13	.29	.12	.24	.23	.15	.24	.47*	.29	.43*	.47*
68. FLEG5	-.14	.16	-.08	-.10	-.01	-.01	-.25	.19	.31	.27	.64**

Note: n = 50 ** p < .001 * p < .01

Table A.12.

Intercorrelations Among Pretest Perceived Power and Functional Power Items: Variables FREW1 through FEXP1

Item	45	46	47	48	49	50	51	52	53	54	55
1. REW1											
2. REW2											
3. REW3											
4. REW4											
5. REW5											
6. REW6											
7. REW7											
8. REW8											
9. COER1											
10. COER2											
11. COER3											
12. COER4											
13. COER5											
14. COER6											
15. COER7											
16. COER8											
17. EXPR1											
18. EXPR2											
19. EXPR3											
20. EXPR4											
21. EXPR5											
22. EXPR6											
23. EXPR7											
24. EXPR8											
25. REF1											
26. REF2											
27. REF3											
28. REF4											
29. REF5											
30. REF6											
31. REF7											
32. REF8											
33. LEG1											
34. LEG2											
35. LEG3											
36. LEG4											
37. LEG5											
38. LEG6											
39. LEG7											
40. LEG8											
41. FGLOB1											
42. FGLOB2											
43. FGLOB3											
44. FGLOB4											
45. FREW1	1.00										
46. FREW2	.16	1.00									
47. FREW3	.17	.58**	1.00								
48. FREW4	.40*	.60**	.52**	1.00							
49. FREW5	.12	.47**	.35	.44*	1.00						
50. FCOER1	.12	.25	.16	.20	.05	1.00					
51. FCOER2	.23	.44*	.36	.35	.07	.49**	1.00				
52. FCOER3	.46*	.48**	.29	.41*	.27	.61**	.59**	1.00			
53. FCOER4	.29	.45*	.19	.37*	.14	.41*	.57**	.71**	1.00		
54. FCOER5	.26	.49**	.40*	.38*	.30	.50**	.72**	.68**	.61**	1.00	
55. FEXP1	.21	.48**	.26	.49**	.32	.25	.351	.32	.39*	.31	1.00
56. FEXP2	.27	.47**	.35	.47**	.36	.26	.22	.46*	.53**	.35	.79**
57. FEXP3	.35	.47**	.27	.46**	.42*	.29	.24	.43*	.33	.46**	.57**
58. FEXP4	.28	.30	.14	.35	.23	.24	.15	.34	.19	.28	.55**
59. FREF1	.38*	.61**	.57**	.64**	.50**	.13	.33	.42*	.28	.438*	.63**
60. FREF2	.44*	.55**	.46**	.54**	.51**	.13	.27	.43*	.18	.38*	.48**
61. FREF3	.48**	.31	.41*	.55**	.22	.20	.29	.40*	.36	.30	.325
62. FREF4	.31	.37*	.42*	.40*	.36*	.12	.04	.33	.19	.21	.44*
63. FREF5	.48**	.44*	.36*	.62**	.48**	.31	.30	.58**	.42*	.44*	.56**
64. FLEG1	.31	.74**	.65**	.67**	.48**	.25	.49**	.43*	.25	.51**	.47**
65. FLEG2	-.01	.48**	.19	.31	.30	.21	.51**	.33	.47**	.57**	.56**
66. FLEG3	.37*	.61**	.46**	.76**	.43*	.09	.29	.33	.27	.40*	.44*
67. FLEG4	.10	.23	.07	.38	.25	.13	.16	.23	.28	.46*	.46*
68. FLEG5	.29	.33	.28	.32	.27	.18	.34	.45*	.25	.45*	.35

Note: $n = 50$ ** $p < .001$ * $p < .01$

Table A.13.

Intercorrelations Among Pretest Perceived Power and Functional Power Items: Variables FEXP2 through FLEGS

Item	56	57	58	59	60	61	62	63	64	65	66	67	68
1. REW1													
2. REW2													
3. REW3													
4. REW4													
5. REW5													
6. REW6													
7. REW7													
8. REW8													
9. COER1													
10. COER2													
11. COER3													
12. COER4													
13. COER5													
14. COER6													
15. COER7													
16. COER8													
17. EXPER1													
18. EXPER2													
19. EXPER3													
20. EXPER4													
21. EXPER5													
22. EXPER6													
23. EXPER7													
24. EXPER8													
25. REF1													
26. REF2													
27. REF3													
28. REF4													
29. REF5													
30. REF6													
31. REF7													
32. REF8													
33. LEG1													
34. LEG2													
35. LEG3													
36. LEG4													
37. LEG5													
38. LEG6													
39. LEG7													
40. LEG8													
41. FGLOB1													
42. FGLOB2													
43. FGLOB3													
44. FGLOB4													
45. FREW1													
46. FREW2													
47. FREW3													
48. FREW4													
49. FREW5													
50. FCOER1													
51. FCOER2													
52. FCOER3													
53. FCOER4													
54. FCOER5													
55. FEXP1													
56. FEXP2	1.00												
57. FEXP3	.62**	1.00											
58. FEXP4	.47**	.67**	1.00										
59. FREF1	.61**	.55**	.47**	1.00									
60. FREF2	.48**	.59**	.48**	.88**	1.00								
61. FREF3	.28	.33	.28	.52**	.47**	1.00							
62. FREF4	.48**	.26	.26	.66**	.60**	.56**	1.00						
63. FREF5	.58**	.59**	.43*	.74**	.68**	.67**	.60**	1.00					
64. FLEG1	.38*	.48**	.35	.71**	.67**	.43*	.46**	.52**	1.00				
65. FLEG2	.51**	.45*	.38*	.43*	.36*	.15	.12	.35	.37*	1.00			
66. FLEG3	.31	.54**	.47**	.53**	.53**	.46**	.29	.45*	.64**	.31	1.00		
67. FLEG4	.53**	.61**	.58**	.45*	.38	.15	.10	.32	.28	.64**	.47*	1.00	
68. FLEG5	.24	.23	.29	.40*	.30	.52**	.40*	.53**	.32	.16	.41*	.13	1.00

Note: n = 50 ** p < .001 * p < .01

Table A.14

Intercorrelations Among Pretest Global and Specific Leadership Effectiveness Items: Variables G1 Through MOT4.

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. G1	1.00													
2. G2	.80**	1.00												
3. G3	.88**	.83**	1.00											
4. G4	.80**	.67**	.77**	1.00										
5. G5	.78**	.68**	.75**	.92**	1.00									
6. CON1	.58**	.51**	.50**	.55**	.49**	1.00								
7. CON2	.59**	.55**	.55**	.54**	.49**	.48**	1.00							
8. CON3	.54**	.49**	.46**	.47**	.41*	.46**	.84**	1.00						
9. CON4	.62**	.57**	.61**	.56**	.58**	.37*	.71**	.66**	1.00					
10. CON5	.49**	.52**	.45**	.36*	.38*	.40*	.66**	.72**	.74**	1.00				
11. MOT1	.75**	.76**	.78**	.74**	.65**	.58**	.68**	.64**	.72**	.57**	1.00			
12. MOT2	.45*	.69**	.48**	.39*	.35	.41*	.47**	.36*	.374*	.43*	.48**	1.00		
13. MOT3	.44*	.38*	.40*	.38*	.39*	.46**	.53**	.51**	.43*	.44*	.41*	.48**	1.00	
14. MOT4	.52**	.44*	.45*	.57**	.56**	.43*	.67**	.66**	.71**	.66**	.57**	.23	.47**	1.00
15. MOT5	.72**	.67**	.64**	.63**	.60**	.45**	.69**	.59**	.66**	.58**	.71**	.52**	.53**	.52**
16. MOT6	.47**	.53**	.44*	.48**	.44*	.24	.61**	.58**	.61**	.65**	.51**	.49**	.32	.65**
17. FUNC1	.71**	.66**	.68**	.58**	.59**	.39*	.60**	.65**	.80**	.70**	.72**	.30	.47**	.69**
18. FUNC2	.61**	.57**	.49**	.45**	.44*	.47**	.59**	.64**	.54**	.63**	.59**	.39*	.64**	.63**
19. FUNC3	.65**	.57**	.63**	.56**	.58**	.43*	.59**	.56**	.61**	.54**	.54**	.43*	.50**	.50**
20. FUNC4	.66**	.76**	.67**	.61**	.62**	.54**	.63**	.58**	.63**	.65**	.76**	.72**	.56**	.47**
21. FUNC5	.69**	.54**	.65**	.58**	.63**	.41*	.48**	.52**	.55**	.49**	.50**	.43*	.44*	.45*
22. POW1	.53**	.53**	.51**	.45**	.42*	.33	.63**	.54**	.67**	.59**	.50**	.29	.33	.64**
23. POW2	.62**	.53**	.59**	.55**	.57**	.34	.62**	.63**	.70**	.55**	.63**	.21	.45*	.51**
24. POW3	.61**	.50**	.60**	.46**	.52**	.14	.54**	.52**	.60**	.47**	.51**	.19	.42*	.53**
25. POW4	.77**	.66**	.73**	.62**	.66**	.49**	.54**	.50**	.57**	.45**	.61**	.41*	.51**	.55**
26. POW5	.61**	.61**	.61**	.54**	.57**	.17	.37*	.36*	.50**	.32	.55**	.30	.22	.29
27. DEL1	.70**	.56**	.62**	.58**	.69**	.47**	.59**	.48**	.53**	.46**	.50**	.39*	.54**	.40*
28. DEL2	.40*	.30	.30	.36	.41*	.26	.56**	.60**	.49**	.56**	.35	.18	.40*	.49**
29. DEL3	.56**	.60**	.57**	.51**	.55**	.52**	.55**	.53**	.68**	.53**	.65**	.51**	.40**	.39*
30. DEL4	.75**	.69**	.66**	.52**	.56**	.39*	.55**	.50**	.52**	.52**	.56**	.63**	.62**	.32
31. DEL5	.72**	.73**	.68**	.50**	.55**	.41*	.59**	.47**	.57**	.57**	.60**	.61**	.47**	.40*
32. PLAN1	.72**	.80**	.66**	.63**	.63**	.37*	.58**	.55**	.67**	.49**	.73**	.56**	.42*	.41*
33. PLAN2	.48**	.53**	.44*	.41*	.35	.17	.17	.24	.24	.12	.48**	.41*	.12	.14
34. PLAN3	.38*	.41*	.35	.18	.26	-.11	.09	.10	.18	-.01	.21	.20	.10	-.03
35. PLAN4	.65**	.72**	.67**	.50**	.55**	.23	.39*	.29	.58**	.53**	.61**	.47**	.20	.39*
36. PLAN5	.73**	.74**	.63**	.59**	.61**	.28	.56**	.52**	.63**	.47**	.69**	.52**	.42*	.34
37. DEC1	.86**	.78**	.79**	.79**	.77**	.50**	.59**	.53**	.66**	.51**	.81**	.54**	.47**	.50**
38. DEC2	.81**	.69**	.76**	.64**	.69**	.43*	.53**	.51**	.59**	.46**	.67**	.37*	.57**	.51**
39. DEC3	.72**	.64**	.71**	.62**	.64**	.47**	.57**	.55**	.63**	.66**	.67**	.40*	.55**	.60**
40. DEC4	.64**	.58**	.61**	.59**	.58**	.20	.23	.25	.24	.11	.51**	.18	.11	.26
41. DEC5	.71**	.66**	.69**	.59**	.60**	.47**	.55**	.46**	.47**	.50**	.65**	.54**	.39*	.37*
42. PROB1	.64**	.54**	.64**	.70**	.63**	.35	.50**	.47**	.45*	.46**	.67**	.36*	.37*	.46**
43. PROB2	.36	.51**	.40*	.43*	.40*	.48**	.42*	.37*	.36	.34	.43*	.57**	.44*	.36*
44. PROB3	.57**	.51**	.48**	.64**	.58**	.53**	.53**	.47**	.40*	.44*	.54**	.56**	.54**	.43*
45. PROB4	.73**	.73**	.70**	.69**	.67**	.48**	.50**	.47**	.53**	.48**	.66**	.49**	.41*	.48**
46. PROB5	.69**	.59**	.67**	.52**	.54**	.50**	.57**	.51**	.46**	.55**	.59**	.50**	.52**	.43*
47. TEAM1	.74**	.70**	.73**	.68**	.76**	.49**	.49**	.38*	.56**	.48**	.59**	.42*	.38*	.43*
48. TEAM2	.65**	.58**	.69**	.50**	.63**	.48**	.40*	.30	.42*	.44*	.43*	.50**	.47**	.28
49. TEAM3	.85**	.71**	.83**	.70**	.78**	.46**	.46**	.43*	.56**	.43*	.67**	.46**	.39*	.37*
50. TEAM4	.72**	.64**	.70**	.52**	.61**	.37*	.48**	.43*	.58**	.49**	.55**	.42*	.45*	.40*
51. TEAM5	.68**	.53**	.65**	.51**	.61**	.36*	.45**	.34	.44*	.42*	.48**	.45*	.49**	.32

Note: n = 50 * p < .01 ** p < .001

Table A.15

Intercorrelations Among Pretest Global and Specific Leadership Effectiveness Items: Variables MOT5 Through DEL2.

Item	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1. G1														
2. G2														
3. G3														
4. G4														
5. G5														
6. CON1														
7. CON2														
8. CON3														
9. CON4														
10. CON5														
11. MOT1														
12. MOT2														
13. MOT3														
14. MOT4														
15. MOT5	1.00													
16. MOT6	.52**	1.00												
17. FUNC1	.64**	.58**	1.00											
18. FUNC2	.63**	.46**	.65**	1.00										
19. FUNC3	.56**	.73**	.65**	.49**	1.00									
20. FUNC4	.72**	.46**	.63**	.59**	.52**	1.00								
21. FUNC5	.56**	.54**	.59**	.41*	.80**	.53**	1.00							
22. POW1	.55**	.48**	.61**	.58**	.50**	.50**	.33	1.00						
23. POW2	.51**	.54**	.69**	.53**	.82**	.49**	.70**	.53**	1.00					
24. POW3	.54**	.53**	.73**	.57**	.72**	.44*	.68**	.55**	.73**	1.00				
25. POW4	.61**	.47**	.64**	.59**	.62**	.57**	.60**	.49**	.53**	.58**	1.00			
26. POW5	.44*	.49**	.62**	.40*	.65**	.48**	.59**	.37*	.64**	.66**	.61**	1.00		
27. DEL1	.50**	.40*	.56**	.49**	.68**	.54**	.69**	.32	.71**	.55**	.52**	.54**	1.00	
28. DEL2	.51**	.55**	.54**	.50**	.58**	.44*	.54**	.39*	.57**	.46**	.37*	.37*	.51**	1.00
29. DEL3	.58**	.36*	.58**	.54**	.53**	.70**	.50**	.38*	.66**	.43*	.45**	.37*	.60**	.46**
30. DEL4	.62**	.48**	.60**	.55**	.64**	.69**	.74**	.39*	.60**	.58**	.64**	.51**	.75**	.48**
31. DEL5	.65**	.50**	.68**	.50**	.64**	.67**	.71**	.42*	.59**	.55**	.61**	.46**	.71**	.42*
32. PLAN1	.72**	.52**	.74**	.59**	.61**	.68**	.51**	.65**	.64**	.59**	.65**	.72**	.57**	.41*
33. PLAN2	.20	.36	.34	.31	.33	.27	.39*	.11	.28	.30	.44*	.57**	.28	.07
34. PLAN3	.20	.09	.23	.25	.27	.17	.27	.04	.34	.33	.30	.52**	.35	.14
35. PLAN4	.48**	.67**	.62**	.31	.58**	.54**	.50**	.39*	.44*	.45*	.58**	.68**	.47**	.34
36. PLAN5	.79**	.54**	.68**	.56**	.64**	.66**	.57**	.51**	.65**	.60**	.60**	.68**	.57**	.49**
37. DEC1	.73**	.47**	.67**	.61**	.59**	.74**	.65**	.50**	.61**	.59**	.76**	.66**	.60**	.38*
38. DEC2	.65**	.45*	.69**	.60**	.66**	.60**	.63**	.45**	.67**	.62**	.74**	.49**	.66**	.40*
39. DEC3	.62**	.57**	.65**	.57**	.66**	.61**	.65**	.60**	.65**	.54**	.66**	.54**	.59**	.40*
40. DEC4	.26	.26	.39*	.30	.35	.26	.38*	.14	.40*	.39*	.47**	.53**	.48**	.15
41. DEC5	.59**	.48**	.48**	.48**	.48**	.62**	.60**	.34	.49**	.33	.68**	.44*	.59**	.39*
42. PROB1	.61**	.49**	.52**	.42*	.52**	.58**	.57**	.38*	.45*	.44*	.57**	.51**	.42*	.351
43. PROB2	.48**	.31	.27	.41*	.33	.58**	.32	.40*	.26	.21	.31	.07	.21	.13
44. PROB3	.65**	.41*	.43*	.46**	.47**	.70**	.40*	.41*	.31	.21	.43*	.18	.41*	.41*
45. PROB4	.62**	.48**	.59**	.50**	.55**	.63**	.61**	.46**	.51**	.51**	.63**	.50**	.48**	.27
46. PROB5	.57**	.39*	.48**	.54**	.50**	.66**	.63**	.43*	.49**	.42*	.57**	.32	.59**	.37*
47. TEAM1	.56*	.31	.62**	.44*	.58**	.68**	.66**	.53**	.61**	.48**	.62**	.57**	.76**	.401*
48. TEAM2	.38*	.32	.50**	.32	.60**	.61**	.69**	.30	.48**	.48**	.65**	.45*	.74**	.28
49. TEAM3	.60**	.42*	.61**	.51**	.69**	.67**	.77**	.42*	.63**	.65**	.77**	.68**	.73**	.37*
50. TEAM4	.58**	.54**	.62**	.47**	.80**	.55**	.79**	.45**	.68**	.78**	.70**	.67**	.61**	.31
51. TEAM5	.58**	.40*	.49**	.44*	.62**	.53**	.79**	.30	.55**	.60**	.59**	.45*	.72**	.34

Note: $n = 50$ * $p < .01$ ** $p < .001$

Table A.16
Intercorrelations Among Pretest Global and Specific Leadership Effectiveness Items: Variables DEL3 Through PROBI.

Item	29	30	31	32	33	34	35	36	37	38	39	40	41	42
1. G1														
2. G2														
3. G3														
4. G4														
5. G5														
6. CON1														
7. CON2														
8. CON3														
9. CON4														
10. CON5														
11. MOT1														
12. MOT2														
13. MOT3														
14. MOT4														
15. MOT5														
16. MOT6														
17. FUNC1														
18. FUNC2														
19. FUNC3														
20. FUNC4														
21. FUNC5														
22. POW1														
23. POW2														
24. POW3														
25. POW4														
26. POW5														
27. DEL1														
28. DEL2														
29. DEL3	1.00													
30. DEL4	.66**	1.00												
31. DEL5	.57**	.85**	1.00											
32. PLAN1	.62**	.67**	.65**	1.00										
33. PLAN2	.33	.51**	.43*	.48**	1.00									
34. PLAN3	.36*	.40*	.28	.47**	.50**	1.00								
35. PLAN4	.41*	.57**	.58**	.60**	.56**	.36	1.00							
36. PLAN5	.61**	.74**	.69**	.92**	.47**	.52**	.61**	1.00						
37. DEC1	.58**	.73**	.66**	.79**	.57**	.38*	.64**	.77**	1.00					
38. DEC2	.63**	.71**	.70**	.66**	.40*	.47**	.57**	.68**	.77**	1.00				
39. DEC3	.55**	.63**	.59**	.59**	.37*	.20	.64**	.57**	.68**	.71**	1.00			
40. DEC4	.25	.39*	.40*	.45*	.62**	.52**	.50**	.42*	.63**	.66**	.38*	1.00		
41. DEC5	.57**	.71**	.75**	.58**	.46**	.26	.55**	.59**	.65**	.67**	.71**	.44*	1.00	
42. PROBI	.40*	.55**	.48**	.56**	.43*	.16	.53**	.60**	.68**	.57**	.75**	.38*	.63**	1.00
43. PROB2	.55**	.39*	.381*	.40*	.18	.01	.21	.38*	.40*	.44*	.32	.13	.33	.32
44. PROB3	.57**	.56**	.52**	.51**	.25	.12	.36	.55**	.56**	.58**	.52**	.21	.53**	.64**
45. PROB4	.60**	.67**	.59**	.64**	.52**	.39*	.58**	.64**	.77**	.82**	.70**	.59**	.64**	.65**
46. PROB5	.62**	.76**	.67**	.48**	.34	.31	.47**	.52**	.59**	.71**	.77*	.34	.80**	.66**
47. TEAM1	.51**	.67**	.69**	.67**	.24	.31	.50**	.60**	.71**	.65**	.62**	.46**	.59**	.54**
48. TEAM2	.50**	.71**	.72**	.44*	.27	.23	.52**	.39*	.57**	.65**	.59**	.38*	.63**	.42*
49. TEAM3	.58**	.75**	.72**	.64**	.50**	.39*	.65**	.67**	.78**	.75**	.68**	.56**	.72**	.59**
50. TEAM4	.49**	.69**	.70**	.56**	.41*	.35	.60**	.63**	.68**	.69**	.64**	.42*	.52**	.50**
51. TEAM5	.54**	.78**	.78**	.44*	.36	.280	.46**	.54**	.54**	.64**	.61**	.34	.72**	.50**

Note: $n = 50$ * $p < .01$ ** $p < .001$

Table A.17
Intercorrelations Among Pretest Global and Specific Leadership Effectiveness Items: Variables PROB2 Through TEAM5.

Item	43	44	45	46	47	48	49	50	51
1. G1									
2. G2									
3. G3									
4. G4									
5. G5									
6. CON1									
7. CON2									
8. CON3									
9. CON4									
10. CON5									
11. MOT1									
12. MOT2									
13. MOT3									
14. MOT4									
15. MOT5									
16. MOT6									
17. FUNC1									
18. FUNC2									
19. FUNC3									
20. FUNC4									
21. FUNC5									
22. POW1									
23. POW2									
24. POW3									
25. POW4									
26. POW5									
27. DEL1									
28. DEL2									
29. DEL3									
30. DEL4									
31. DEL5									
32. PLAN1									
33. PLAN2									
34. PLAN3									
35. PLAN4									
36. PLAN5									
37. DEC1									
38. DEC2									
39. DEC3									
40. DEC4									
41. DEC5									
42. PROB1									
43. PROB2	1.00								
44. PROB3	.68**	1.00							
45. PROB4	.59**	.64**	1.00						
46. PROB5	.51**	.63**	.74**	1.00					
47. TEAM1	.34	.49**	.62**	.61**	1.00				
48. TEAM2	.35	.42*	.58**	.69**	.76**	1.00			
49. TEAM3	.35	.46**	.65**	.69**	.73**	.79**	1.00		
50. TEAM4	.37*	.36	.61**	.54**	.57**	.70**	.83**	1.00	
51. TEAM5	.38*	.46**	.55**	.73**	.61**	.77**	.82**	.79**	1.00

Note: $n = 50$ * $p < .01$ ** $p < .001$

Table A.18.

Intercorrelations Among Pretest Perceived Power and Leader Effectiveness Items

Item	G1	G2	G3	G4	G5
REW1	.21	.20	.14	.37*	.33
REW2	.34	.32	.25	.40*	.38*
REW3	.28	.36	.26	.23	.17
REW4	.42*	.37*	.30	.33	.36
REW5	.63**	.55**	.48**	.58**	.58**
REW6	.29	.19	.23	.39*	.36
REW7	.59**	.63**	.50**	.49**	.48**
REW8	.53**	.49**	.47**	.49**	.49**
COER1	.39*	.43*	.34	.38*	.40*
COER2	.25	.16	.24	.34	.31
COER3	.40*	.51**	.41*	.33	.33
COER4	-.34	-.30	-.28	-.31	-.32
COER5	-.25	-.15	-.11	-.27	-.27
COER6	.20	.19	.24	.09	.11
COER7	-.12	-.07	.01	-.08	-.11
COER8	-.06	-.01	-.06	-.18	-.11
EXPER1	.41*	.35	.48**	.49**	.49**
EXPER2	.46**	.41*	.44*	.41*	.39*
EXPER3	.38*	.41*	.40*	.30	.34
EXPER4	.58**	.55**	.53**	.51**	.46**
EXPER5	.67**	.63**	.64**	.55**	.43*
EXPER6	.41*	.45*	.35	.43*	.38*
EXPER7	.65**	.60**	.60**	.57**	.50**
EXPER8	.60**	.61**	.62**	.58**	.51**
REF1	.55**	.59**	.58**	.50**	.44*
REF2	.73**	.70**	.75**	.82**	.81**
REF3	.67**	.65**	.67**	.61**	.55**
REF4	.46**	.42*	.33	.39*	.32
REF5	.70**	.60**	.69**	.75**	.66**
REF6	.57**	.51**	.58**	.70**	.60**
REF7	.40*	.32	.26	.43*	.41*
REF8	.56**	.52**	.61**	.65**	.65**
LEG1	.18	.28	.24	.26	.28
LEG2	.01	.17	.04	.10	.09
LEG3	.31	.35	.37*	.29	.30
LEG4	.10	.16	.16	.06	.01
LEG5	.38*	.41*	.41*	.33	.38*
LEG6	.15	.36*	.24	.18	.12
LEG7	.13	.24	.28	.19	.18
LEG8	-.16	-.04	-.06	-.08	-.04

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

Table A.19.

Intercorrelations Among Pretest Functional Power and Leader Effectiveness Items

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Item	G1	G2	G3	G4	G5
FGLOB1	.25	.25	.23	.31	.23
FGLOB2	.47**	.41*	.45*	.37*	.41*
FGLOB3	.13	.0542	.13	.17	.09
FGLOB4	.29	.2174	.23	.21	.21
FREW1	.31	.28	.26	.28	.25
FREW2	.40*	.40*	.41*	.43*	.37*
FREW3	.28	.17	.23	.27	.23
FREW4	.40*	.31	.33	.29	.18
FREW5	.26	.03	.18	.36*	.32
FCOER1	.29	.31	.16	.18	.24
FCOER2	.33	.27	.38*	.22	.27
FCOER3	.39*	.33	.33	.32	.32
FCOER4	.14	.13	.09	.14	.14
FCOER5	.30	.15	.23	.21	.30
FEXP1	.36*	.35	.32	.36*	.36*
FEXP2	.25	.26	.16	.35	.33
FEXP3	.46**	.41*	.43*	.46**	.45*
FEXP4	.60**	.53**	.50**	.47**	.48**
FREF1	.57**	.39*	.49**	.62**	.58**
FREF2	.57**	.42*	.55**	.62**	.60**
FREF3	.40*	.35	.40*	.42*	.37*
FREF4	.48**	.38*	.34	.55**	.57**
FREF5	.46**	.30	.39*	.58**	.57**
FLEG1	.40*	.30	.38*	.44*	.37*
FLEG2	.26	.19	.33	.30	.35
FLEG3	.52**	.40*	.51**	.30	.21
FLEG4	.25	.20	.24	.18	.16
FLEG5	.33	.26	.34	.34	.36

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

APPENDIX B

QUESTIONNAIRE AND LETTERS TO PARTICIPANTS

November 20, 1986

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Belle Rose Ragins
Industrial-Organizational Psychology Program
413 Stokely Management Center
University of Tennessee
Knoxville, TN. 37996-0545

Dear Dr./Mr./Ms.:

I would greatly appreciate your assistance. I am a graduate student in the Industrial-Organizational Program at the University of Tennessee. For my dissertation, I am conducting a study of male and female managers and their subordinates at

The study is designed to gain a better understanding of the relationships between supervisors and their subordinates in organizations. I am also interested in understanding the mentoring relationship - how it is formed, the functions it serves, and its' importance to professional and personal growth in organizations. Hopefully, with your assistance, this study could provide insights into how to meet the individual needs of employees in your organization.

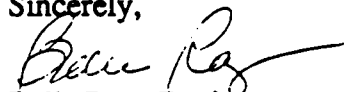
Your supervisor and some of your co-workers have also been asked to participate in this study and will receive their own copy of the survey. Since your group represents half of a matched set of male and female managers and their subordinates, your response to this survey is very important.

The enclosed survey goes very quickly. The questions are interesting and it should take no more than 15-20 minutes to complete. It may take even less time since you may not be asked to answer all of the questions. I think you will find the survey very thought provoking.

Although _____ has been very supportive in approving my research project, please rest assured that the results of the study are entirely confidential. Your responses will remain anonymous. I will be the only person to have access to the questionnaires. There will be no analysis of individual responses since I am only using group-level data.

I need your input and greatly appreciate your cooperation. Please call me if you have any questions (school: 974-3161 _____). Thank you again for your assistance.

Sincerely,



Belle Rose Ragins

To avoid the holiday delay, please return your surveys as soon as possible to :
Belle Ragins
c/o Marty Schweitzer

I.D #:

December 8, 1986

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Belle Rose Ragins
Industrial-Organizational Psychology Program
413 Stokely Management Center
University of Tennessee
Knoxville, TN 37996-0545

Dear Participant:

Thank you so much for participating in my dissertation study. If you cannot locate or did not receive a copy of the survey, please leave me a message at _____, and I will send one to you as soon as possible. If you would like to participate in this study but have not had the chance to complete your survey, please try to send it to me before the holidays. I am taking a job in Milwaukee the first of the year and would like to receive your survey before that time. Please rest assured that your survey will be held in strictest confidence, and in an out-of-state location !

Thank you again for your time and help. I really do appreciate it.

Sincerely,

A handwritten signature in cursive script, appearing to read "Belle Ragins".

Belle Rose Ragins

Belle Rose Ragins
Industrial-Organizational Psychology Program
413 Stokely Management Center
University of Tennessee
Knoxville, TN. 37996-0545

Dear

I need your help. Your response to this questionnaire is critical for the completion of my dissertation. You have been matched to another employee at the same level in the organization, but with a different gender supervisor. Although your match has returned his/her survey, I cannot use it unless I have your completed survey. I know your schedule must be pretty hectic, but I would greatly appreciate your response to this questionnaire.

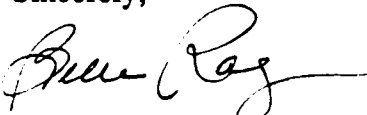
Your responses will be entirely confidential. The code numbers on the survey are for matching and research design purposes. Since I am using matched sets of male and female supervisors and their subordinates, I need to be able to identify the level and gender of your work group. The code numbers are for that purpose. I am the only person who will have access to the questionnaires, and I am taking them out of state when I move to my new job in Milwaukee. Surveys received after the first week in January will be forwarded to me in Milwaukee. Although the surveys will not be opened before they are forwarded, if you prefer to send your survey to me directly please use the following address:

Belle Rose Ragins
Department of Management
Marquette University
Milwaukee, WI 53233
(414) 224-7146

If you would like to participate in the study, even if you won't be able to complete your survey for another month, please send it to me -- either at _____ or in Milwaukee. Please feel free to call me at _____ before January 5, or at Marquette after that time.

Thank you so much for your help.

Sincerely,


Belle Rose Ragins

FINAL INSTRUMENT

(Version B: To be completed by subordinates only)

A Study of Supervisors and Mentors

This study is designed to increase our understanding of the relationships among supervisors, mentors and employees in organizations.

Please return this survey to :
Belle Rose Ragins
c/o Marty Schweitzer
[REDACTED]

Thank you for your help. Your cooperation is greatly appreciated.

General Instructions

Most of the questions in this survey ask you to rate a statement using a 7 point scale. Please write your answer in the space provided at the left of the statement.

Example:

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

2 It is important for me to advance in my organization.

There are six sections in this survey. Specific instructions are given at the beginning of each section. If you wish to comment on any question or qualify your answers, please use the margins or the back page of this survey. Please note that the numbers in the left margins are for coding purposes and can be ignored.

This survey takes about 20 minutes to complete, but it goes quickly and you may not be asked to answer all of the questions. However, please answer all of the questions you are asked to consider. I think you will find it interesting and thought provoking. Please keep in mind that your answers are completely confidential.

Thank you again for your participation in this study.

(01-06) Code # _____

Section 1: Supervisory Description

The following statements are about qualities your supervisor might possess, actions s/he might take, and your personal feelings toward him or her. Please indicate how accurate these phrases are in describing your supervisor using the following scale:

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

-
- (07) ____ 1. My supervisor is very proficient.
- (08) ____ 2. My supervisor is qualified to hold his or her position.
- (09) ____ 3. My supervisor rewards good work.
- (10) ____ 4. My supervisor gives credit where credit is due.
- (11) ____ 5. I admire my supervisor.
- (12) ____ 6. My supervisor has the authority to tell me what to do.
- (13) ____ 7. I respect my supervisor as a person.
- (14) ____ 8. My supervisor rules by might.
- (15) ____ 9. My supervisor has the right to tell me what to do.
- (16) ____ 10. My supervisor recognizes achievement.
- (17) ____ 11. My supervisor is my idea of a perfect manager.
- (18) ____ 12. My supervisor is entitled to direct my actions.
- (19) ____ 13. My supervisor is retaliative.
- (20) ____ 14. My supervisor is strict.
- (21) ____ 15. I consider my supervisor to be very skilled.

4

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

I comply with my supervisor's requests because:

- (46) ____ 23. s/he can decide not to recommend my promotion.
- (47) ____ 24. our organization frowns upon uncooperative attitudes and behaviors.
- (48) ____ 25. complying with the requests is in the best interest of the overall task.
- (49) ____ 26. I can achieve personal goals if I comply with my supervisor's requests.
- (50) ____ 27. I respect my supervisor as a person.
- (51) ____ 28. I don't want things to be difficult for my supervisor.
- (52) ____ 29. I want my supervisor to look good in front of his/her peers.
- (53) ____ 30. I want to carry out my supervisor's directives.

Section 3: Work-Related Needs

The following statements deal with the extent to which your supervisor meets your *work-related needs*. Work-related needs are what you require to feel better about yourself, your job, or the people you work with. Although work-related needs differ from one individual to the next, they generally relate to what you expect from your job- such as pay, personal development and advancement, and what you require to perform your job more effectively - such as information, resources and support.

Please indicate the extent to which you agree or disagree with the statements listed below using the following scale:

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

- (54) ____ 1. My supervisor provides for my work-related needs by reprimanding me for inadequate performance.
- (55) ____ 2. My supervisor provides for my work-related needs by increasing my status in the organization.
- (56) ____ 3. My admiration for my supervisor provides for my work-related needs.
- (57) ____ 4. My respect for my supervisor provides for my work-related needs.
- (58) ____ 5. My supervisor provides for my work-related needs by letting me know when my performance is not up to par.
- (59) ____ 6. My supervisor's skills provide for my work-related needs.

5

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

- (61) ____ 7. My supervisor provides for my work-related needs by helping me advance in the organization.
- (62) ____ 8. My supervisor provides for my work-related needs by assigning me desirable tasks.
- (63) ____ 9. My supervisor's experience provides for my work-related needs.
- (64) ____ 10. My supervisor provides for my work-related needs by being in a position of authority in the organization.
- (65) ____ 11. My supervisor provides for my work-related needs by being an expert in his or her field.
- (66) ____ 12. My supervisor provides for my work-related needs by rewarding me for effective performance.
- (67) ____ 13. My identification with my supervisor provides for my work-related needs.
- (68) ____ 14. My supervisor provides for my work-related needs by providing me with visibility in the organization.
- (69) ____ 15. My supervisor provides for my work-related needs by letting my co-workers know when their performance is not up to par.

(80=1)

Section 4: Supervisor Power

Your supervisor may use the following three types of power to ensure your compliance with his or her directives:

1. **REWARD POWER:** Your supervisor may rely upon the use of rewards - raises, promotions, praise or favorable work assignments - to gain your compliance with his/her requests. You follow your supervisor's directives because you know you will be rewarded if you do.
2. **LEGITIMATE POWER:** Your supervisor may use his/her legitimate position or role in the organization to gain your compliance. You follow your supervisor's directives because s/he has the legitimate right to tell you what to do.
3. **EXPERT POWER:** Your supervisor may use his/her knowledge or expertise to gain your compliance. You follow your supervisor's directives because they know what they're talking about.

Please compare the extent to which your supervisor uses these types of power. For each of the three pairs listed below, indicate the degree to which your supervisor uses one type of power versus the other type of power. Using whole numbers, split 99 points between the members of each pair. For example, if your supervisor relies primarily upon reward power to gain your compliance and rarely uses expert power, your answer might be:

Example: reward : 85
 expert : 14
 Total = 99

(07-08) 1. legitimate : _____
 (09-10) expert : _____
 Total = 99

(11-12) 2. reward : _____
 (13-14) legitimate : _____
 Total = 99

(15-16) 3. reward : _____
 (17-18) expert : _____
 Total = 99

Section 5: Mentors

The following questions ask about mentors. A mentor generally can be defined as a high-ranking, influential member of your organization who has advanced experience and knowledge and who is committed to providing upward mobility and support to your career.

(Please note that the following group of questions ask you to check either a "yes" or a "no" for your response).

A. Current Mentors

- (19) 1. Do you currently have a mentor? (Check one)
 (1) _____ yes
- (20) (0) _____ no 2. Have you ever had a mentor?
- (21) (1) _____ yes (if you checked "yes" please skip to Part B, question # 7 on the next page)
 (0) _____ no (if you checked "no" please skip to page 9 - Part D)
- (22) 3. Is your current mentor your immediate supervisor?
 (1) _____ yes
 (0) _____ no
- (23-24) 4. How long has this relationship existed?
 (25-26) _____ # of years _____ # of months
- (27) 5. Is your current mentor male or female?
 (1) _____ male
 (0) _____ female
- (28) 6. Did you initiate your current mentoring relationship?
 (1) _____ yes
 (0) _____ no
 (3) _____ not sure

Section 6: Evaluation of Supervisor.

The following statements ask your opinion of your supervisor's effectiveness as a leader. Please indicate the extent to which you agree or disagree with the statements listed below using the following scale:

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

My supervisor:

- (07) ____ 1. is an effective leader.
- (08) ____ 2. displays effective leader behaviors.
- (09) ____ 3. displays strong leadership abilities.
- (10) ____ 4. is one of the best leaders I have ever had.
- (11) ____ 5. is one of the best leaders in my organization.

Demographic Information

(This information is for classification purposes only. Please circle the number of your answer)

- (12) 1. Your supervisor's sex:
1 male
0 female
- (13-14) 2. Length of time you have been supervised by current supervisor:
(15-16) _____ # of years _____ # of months
- (17) 3. Your employment status:
1 full-time employee
2 part-time employee
- (18-19) 4. Length of your employment at current company:
(20-21) _____ # of years _____ # of months
- (22) 5. Your Job Title: _____
- (23-24) 6. Your age: _____ years
- (25) 7. Your highest level of education:
1 Completed high school
2 Technical school
3 Some college
4 Completed college
5 Some graduate work
6 MA/MS/MBA/JD
7 Ph.D
8 Other: _____
- (26) 8. Your sex:
1 male
0 female

14

- (27) 9. Your race: (responding to this question is optional)
- | | |
|------------|-------------------------------------|
| 1 White | 4 Asian or Pacific Islander |
| 2 Black | 5 American Indian or Alaskan Native |
| 3 Hispanic | 6 Other: _____ |
- (28) 10. Marital Status:
- | | |
|----------------------------------|-------------|
| 1 Single, never married | 4 Separated |
| 2 Married | 5 Divorced |
| 3 Cohabiting/Living with someone | 6 Widowed |

Are there any questions or comments about the survey you just completed? If so, please use this space for that purpose.

Thank you. Your contribution to this study is greatly appreciated.

PRETEST INSTRUMENT

General Instructions

Most of the questions in this survey ask you to rate a statement using a 7 point scale. Please write your answer in the space provided at the left of the statement.

Example:

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

2 It is important for me to advance in my organization.

There are six sections in this survey. Specific instructions are given at the beginning of each section. Please answer all of the questions. If you wish to comment on any question or qualify your answers, please use the margins or the back page of this survey. Please note that the numbers in the left margins are for coding purposes and can be ignored.

This survey takes about 40 minutes to complete, but it goes quickly and you may not be asked to answer all of the questions. I think you will find it interesting and thought-provoking. Please keep in mind that your answers are completely confidential.

Thank you again for your participation in this study.

Section 1: Supervisory Description

The following questions are about possible qualities of your supervisor, actions s/he might take, or your personal feelings toward him or her. Please indicate how accurate these phrases are in describing your supervisor using the following scale:

strongly agree	moderately agree	slightly agree	neither agree nor disagree	slightly disagree	moderately disagree	strongly disagree
1	2	3	4	5	6	7

-
- (05) ____ 1. My supervisor is very proficient.
- (06) ____ 2. If my work was not up to par my supervisor would point it out to me.
- (07) ____ 3. My supervisor is qualified to hold his or her position.
- (08) ____ 4. My supervisor rewards good work.
- (09) ____ 5. My supervisor is a friendly person.
- (10) ____ 6. My supervisor is highly skilled in all aspects of the tasks his or her subordinates perform.
- (11) ____ 7. My supervisor gives credit where credit is due.
- (12) ____ 8. My supervisor would reprimand me if my work was below standard.
- (13) ____ 9. My supervisor personally pays me a compliment when I do outstanding work.
- (14) ____ 10. My supervisor is overly critical.
- (15) ____ 11. I admire my supervisor.
- (16) ____ 12. My supervisor has the authority to tell me what to do.
- (17) ____ 13. My supervisor is very knowledgeable.
- (18) ____ 14. My supervisor commends me when I do a better than average job.
- (19) ____ 15. I respect my supervisor as a person.
- (20) ____ 16. My supervisor rules by might.
- (21) ____ 17. Nobody knows the job better in my department than my supervisor.
- (22) ____ 18. My supervisor's enthusiasm is contagious.
- (23) ____ 19. My supervisor has the right to tell me what to do.
- (24) ____ 20. I am bound by duty to obey my supervisor.

strongly agree	moderately agree	slightly agree	neither agree nor disagree	slightly disagree	moderately disagree	strongly disagree
1	2	3	4	5	6	7

- 15) ____ 21. My supervisor is a likeable individual.
- 16) ____ 22. My supervisor has authority.
- 17) ____ 23. My supervisor offers inducements for good performance.
- 18) ____ 24. I have an obligation to accept my supervisor's orders.
- 19) ____ 25. My supervisor recognizes achievement.
- 17) ____ 26. My supervisor is my idea of a perfect manager.
- 11) ____ 27. My supervisor is willing to use promotion as a reward for exceptional performance.
- 2) ____ 28. Considering his/her position, my boss has the right to expect that I will carry out the assignments he/she makes.
- 3) ____ 29. My supervisor attracts a dedicated following.
- 4) ____ 30. My supervisor is a disciplinarian.
- 5) ____ 31. My supervisor is entitled to direct my actions.
- 6) ____ 32. My supervisor is retaliative.
- 7) ____ 33. My supervisor is authorized to command.
- 1) ____ 34. Because of my supervisor's competence, I usually go along with his/her advice on how I should do my job.
- 7) ____ 35. I identify with my supervisor.
- 7) ____ 36. My supervisor is experienced.
- 1) ____ 37. My supervisor is strict.
- 7) ____ 38. My supervisor would let me know if I performed poorly.
- 1) ____ 39. My supervisor gives me special recognition when my work performance is especially good.
- 1) ____ 40. I consider my supervisor to be very skilled.

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
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I comply with my supervisor's requests because:

- (33) ____ 64. I want my supervisor to look good in front of his/her peers.
 (34) ____ 65. s/he can recommend promotions.
 (35) ____ 66. I want to carry out my supervisor's directives.

Section 3: Work-Related Needs

The following questions deal with the extent to which your supervisor meets your work-related needs. Work-related needs are what you require to feel better about yourself, your job, or the people you work with. Although work-related needs differ from one individual to the next, they generally relate to what you expect from your job - such as pay, personal development and advancement, and what you require to perform your job more effectively - such as information, resources and support.

Please indicate the extent to which you agree or disagree with the statements listed below using the following scale:

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

- (36) ____ 1. My supervisor provides for my work-related needs by setting strict standards of performance.
 (37) ____ 2. My supervisor uses his or her influence in the organization to provide for my work-related needs.
 (38) ____ 3. My supervisor provides for my work-related needs by complimenting me on a job well done.
 (39) ____ 4. My supervisor provides for my work-related needs by reprimanding my co-workers for inadequate performance.
 (40) ____ 5. My supervisor meets my work-related needs.
 (41) ____ 6. My supervisor provides for my work-related needs by increasing my status in the organization.
 (42) ____ 7. My admiration for my supervisor provides for my work-related needs.
 (43) ____ 8. My respect for my supervisor provides for my work-related needs.
 (44) ____ 9. My supervisor provides for my work-related needs by letting me know when my performance is not up to par.

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

- (45) ____ 10. My supervisor's skills provide for my work-related needs.
- (46) ____ 11. My supervisor provides for my work-related needs by helping me advance in the organization.
- (47) ____ 12. My interpersonal relationship with my supervisor provides for my work-related needs.
- (48) ____ 13. My personal liking of my supervisor provides for my work-related needs.
- (49) ____ 14. My supervisor provides for my work-related needs by reprimanding me for inadequate performance.
- (50) ____ 15. My supervisor provides for my work-related needs by assigning me desirable tasks.
- (51) ____ 16. My supervisor's experience provides for my work-related needs.
- (52) ____ 17. My supervisor provides for my work-related needs by being authorized to command.
- (53) ____ 18. My supervisor uses his or her personal influence over others to provide for my work-related needs.
- (54) ____ 19. My supervisor provides for my work-related needs by being an expert in his or her field.
- (55) ____ 20. My supervisor provides for my work-related needs by rewarding me for effective performance.
- (56) ____ 21. My identification with my supervisor provides for my work-related needs.
- (57) ____ 22. My supervisor provides for my work-related needs by providing me with visibility in the organization.
- (58) ____ 23. My supervisor provides for my work-related needs by recommending raises for effective performance.
- (59) ____ 24. My supervisor provides for my work-related needs by being an expert in his or her field.
- (60) ____ 25. My supervisor provides for my work-related needs by being recognized as knowledgeable and qualified by members of the organization.
- (61) ____ 26. My supervisor provides for my work-related needs by being in a position of authority in the organization.
- (62) ____ 27. My supervisor provides for my work-related needs by letting my co-workers know when their performance is not up to par.
- (63) ____ 28. My supervisor provides for my work-related needs by standing up for me in front of others.
- (64) ____ 29. My supervisor uses his or her position in the organization to provide for my work-related needs.

Section 4: Supervisor Power

The following question asks you to rate the extent to which your supervisor uses three types of power:

1. Reward power: Your supervisor may rely upon the use of rewards - raises, promotions, praise or favorable work assignments - to get you to comply with his/her requests. You follow your supervisor's directives because you know you will get rewarded if you do.

2. Legitimate power: Your supervisor may use his/her legitimate position or role in the organization to gain your compliance. You follow your supervisor's directives because s/he has the legitimate right to tell you what to do.

3. Expert power: Your supervisor may use his/her knowledge or expertise to gain your compliance. You follow your supervisor's directives because they know what they're talking about.

Please compare the extent to which your supervisor uses these types of power. Using whole numbers, split 99 points between the members of each pair. For example, if your supervisor relies primarily upon reward power to gain your compliance and rarely uses expert power, your answer might be:

Example: reward : 85
 expert : 14
 Total = 99

(65-66) 1. legitimate : _____

(67-68) expert : _____
 Total = 99

(69-70) 2. reward : _____

(71-72) legitimate : _____
 Total = 99

(73-74) 3. reward : _____

(75-76) expert : _____
 Total = 99

(80=2)

Section 5: Mentors

The following questions ask about mentors. A mentor can generally be defined as a high-ranking, influential member of your organization who has advanced experience and knowledge and who is committed to providing upward mobility and support to your career.

(Please note that the following group of questions ask you to check either a "yes" or a "no" for your response).

A. Current Mentors

(05) 1. Do you currently have a mentor? (Check one)

(1) _____ yes

(06) (0) _____ no - 2. Have you ever had a mentor?

(1) _____ yes (if you checked "yes" please skip to question # 7)

(0) _____ no (if you checked "no" please skip to page 38)

(07) 3. Is your current mentor your immediate supervisor?

(1) _____ yes

(0) _____ no

13

Section 6: Evaluation of Supervisor.

The following questions ask your opinion of your supervisor's effectiveness as a leader. Please indicate the extent to which you agree or disagree with the statements listed below using the following scale:

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
------------------------	--------------------------	------------------------	------------------------------------	---------------------------	-----------------------------	---------------------------

My supervisor:

- 15) ____ 1. handles problems in a calm and rational manner. (80-4)
- 16) ____ 2. sets achievable goals.
- 17) ____ 3. displays effective leader behaviors.
- 18) ____ 4. effectively analyzes problems.
- 19) ____ 5. uses his or her influence in the organization for my benefit.
- 10) ____ 6. effectively influences his or her subordinates.
- 11) ____ 7. will stand up for me in front of others.
- 2) ____ 8. doesn't ask more of me than I can give.
- 3) ____ 9. knows when to ask for input in decision making and when to make decisions by him/herself.
- 4) ____ 10. effectively consults with others when solving problems.
- 5) ____ 11. schedules work activities.
- 6) ____ 12. is an effective problem solver.
- 7) ____ 13. can get people to work together as a team.
- 1) ____ 14. contributes to my effective job performance.
- 1) ____ 15. plans ahead.
- 1) ____ 16. delegates tasks effectively.
- 1) ____ 17. can effectively focus work groups.
- 1) ____ 18. contributes to the effectiveness of my work group.
- 1) ____ 19. is an effective leader.
- 1) ____ 20. makes sure that I have the skills and abilities necessary to do a task before assigning it to me.
- 1) ____ 21. uses his or her influence in the organization to help my work group.
- 1) ____ 22. motivates me.
- 1) ____ 23. helps me get the job done.
- 1) ____ 24. effectively implements decisions.

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
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My supervisor:

- (29) ____ 25. may change a task to fit the skills and abilities of the individual.
- (30) ____ 26. is concerned about my well being.
- (31) ____ 27. is an effective planner.
- (32) ____ 28. will go out of his or her way to help me.
- (33) ____ 29. decides what should be done and how it should be done.
- (34) ____ 30. helps me achieve my goals.
- (35) ____ 31. encourages me to express my ideas and opinions.
- (36) ____ 32. knows when to delegate and when to do the job him/herself.
- (37) ____ 33. uses his or her influence in the organization to get needed resources for our work group.
- (38) ____ 34. can gain commitment from members of a work group.
- (39) ____ 35. displays strong leadership abilities.
- (40) ____ 36. encourages me to do my best.
- (41) ____ 37. effectively uses input from subordinates in making decisions.
- (42) ____ 38. anticipates problems before they occur.
- (43) ____ 39. effectively settles conflicts among coworkers.
- (44) ____ 40. is one of the best leaders in my organization.
- (45) ____ 41. generally makes good decisions.
- (46) ____ 42. can get every member of a work group to contribute.
- (47) ____ 43. is friendly and approachable.

strongly agree 1	moderately agree 2	slightly agree 3	neither agree nor disagree 4	slightly disagree 5	moderately disagree 6	strongly disagree 7
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- 11) ____ 44. gives me feedback on my performance.
- 12) ____ 45. helps my work group achieve its goals.
- 13) ____ 46. lets me know what is expected of me.
- 14) ____ 47. rewards me when I do a good job.
- 15) ____ 48. effectively uses his or her influence over others to get the job done.
- 16) ____ 49. is one of the best leaders I have ever had.
- 17) ____ 50. assigns the right people to the right task.
- 18) ____ 51. can make tough decisions when necessary.

Demographic Information (This information is for classification purposes only)

- (56) 1. Your supervisor's sex:
1 male
0 female
- (57-60) 2. Length of time supervised by current supervisor:
_____ years _____ months
- (61) 3. Employment Status:
1 full-time employee
2 part-time employee
- (62-65) 4. Length of employment at current company:
_____ years _____ months
- (66) 5. Job Title: _____
- (67-68) 6. Your age: _____ years
- (69) 7. Your highest level of education (Circle the number of your answer)
1 Completed high school 5 Some graduate work
2 Technical school 6 MA/MS/MBA/JD
3 Some college 7 Ph.D.
4 Completed college 8 Other: _____
- (70) 8. Your sex: (Circle number)
1 male
0 female
- (71) 9. Your ethnic background: (Circle number)
1 Caucasian 4. Asian or Pacific Islander
2 Black 5. American Indian or Alaskan Native
3 Hispanic 6. Other: _____
- (72) 10. Marital Status: (Circle number)
1 Single, never married 4 Separated
2 Married 5 Divorced
3 Cohabiting/Living with someone 6 Widowed

VITA

Belle Rose Ragins was born and raised in Chicago, Illinois. She attended Solomon Elementary School and graduated from Mather High School in May of 1973. During high school, and for the subsequent year, she was employed as the coordinator of a citywide youth drug crisis intervention service in Chicago.

Belle entered Southern Illinois University at Carbondale in September of 1974, and graduated summa cum laude with a B.A. in Psychology in May of 1977. During that time, she was employed as a part-time program developer and training coordinator for the university. Following graduation, she served as a program director and trainer for various social service programs in Austin, Texas and Downers Grove, Illinois.

In the fall of 1979, she entered the Masters in Social Work Administration, Policy and Organization Program at the University of Illinois at Chicago. While pursuing her Masters, she held a public policy analyst internship with the Illinois State Legislature. Belle graduated summa cum laude in May of 1981, and entered the Doctoral Program in Industrial-Organizational Psychology at the University of Tennessee in the fall of that year. During her graduate studies, she held adjunct teaching positions at Northeastern Illinois University, Triton College and Maryville College. She also served as a research consultant for Oak Ridge National Laboratory. She received the Ph.D in Industrial and Organizational Psychology in August of 1987.

Belle is a member of Phi Kappa Phi, the Academy of Management, and Division 14 of the American Psychological Association. She is currently employed as an Assistant Professor of Management at Marquette University. She and her pets (Sam, Mazel and Sophie) reside in Milwaukee, Wisconsin.