ANDROGYNY AND MANAGERIAL EFFECTIVENESS IN A
TOTAL QUALITY MANAGEMENT ORGANIZATION

THESIS

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

Lori A. Byers, B.S.

Denton, Texas

August, 1994
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The majority of studies concerning psychological sex and management style have indicated that people consider the masculine style of managing to be the most popular. However, such studies are out of date and/or were usually measuring the perceptions of surveyed college students. Few studies have focused on successful managers in successful organizations. A modified version of the Bem Sex Role Inventory was distributed to 52 managers in a Total Quality Management organization. This study hypothesized that successful managers would be androgynous managers. The results of the study indicated that successful managers are androgynous managers, and that there is no significant difference in the number of female and male androgynous managers.
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CHAPTER I

INTRODUCTION

Introduction

Organizations are an integral part of the lives of human beings. From the day a person is born, daily contact with some type of organization is routine. Farace, Monge, and Russell (1977) noted that "the ability to organize—to routinely engage in interlocked behaviors that allow us to transcend our individual limitations—is one of humanity's most highly developed talents" (p. 3). Without the ability to form organizations, even the simplest of tasks would be difficult, if not impossible.

The research in organizational communication overwhelmingly supports the notion that communication is essential to the success of organizations (Bolton & Bolton, 1984; Clampitt, 1991; Goldhaber, 1986; Laughlin, 1984; Merrill & Reid, 1981). Farace, Monge, and Russell (1977) acknowledged the importance of communication in organizations when they stated that:

The communication system of an organization is an increasingly powerful determinant of the organization's overall effectiveness, and it may have a limiting effect on the ability of the organization to grow, to perform efficiently, or to survive. (p. 7)
Ineffective communication is regarded as the primary cause of organizational failure (Goldhaber, 1986; Miller & Hayslip, 1989). Without effective communication, organizations stagnate and experience entropy.

The present study was an attempt to examine the relationship between psychological sex and managerial effectiveness. This chapter states the problem and defines the terms that were used in the study. In addition, chapter one discusses the significance of the study.

**Statement of the Problem**

Traditionally, the management style of choice in organizations has been a masculine one (Powell & Butterfield, 1979, 1984, 1989; Schein, 1973, 1975). One plausible explanation for the preference for masculine styles of managing is the traditionally disproportionate number of men in management positions. Good managers are described in terms associated with traditionally masculine behaviors such as aggressive, domineering, autocratic, and independent. McGregor (1967) pointed out that:

The model of a successful manager in our culture is a masculine one. The good manager is aggressive, competitive, firm, just. He [sic] is not feminine; he [sic] is not soft or yielding or dependent or intuitive in the womanly sense. The very expression of emotion is widely viewed as a feminine weakness that would interfere with effective business practices. (p. 23)
Research has indicated that people perceive the masculine management style to be superior. In studies by Schein (1973, 1975), both female and male executives described a successful manager as one who is masculine. Similarly, Powell and Butterfield (1979, 1989) found that the "good manager" is described by business students as traditionally masculine. Consequently, it is not surprising that managers conform to and adopt a masculine style of management.

Birdsall (1980) found that both men and women tend to adopt traditionally masculine methods of managing and communicating. Gomez-Mejia (1983) discovered that occupational socialization tends to reduce sex differences in work related attitudes: the longer women are "taught" the traditionally masculine, autocratic way of management, the more likely they are to adopt it. Birdsall (1980) viewed the results as positive and stated that women adopting the traditionally masculine management/communication style and behaving "similarly to men as managers carried promising implications for organizational members" (p. 195).

Research has indicated, however, that using the stereotypically masculine style of behavior can have counterproductive results, especially for female managers. In a study of female nurses, managers who adopted the stereotypically masculine style had employees with lower morale (Camden & Kennedy, 1986). As DeWine (1987) pointed out, "imitating the male model of leadership results in a
rather sterile environment for males and females" (p. 19). Cann and Siegfried (1990) asserted that "the stereotype of a masculine leader represents a very narrow view that ignores an important dimension of effective leadership" (p. 418). Adopting a stereotypically masculine method of management and ignoring the potential benefits of adaptably using both masculine and feminine styles of management can have detrimental results.

Rosener (1990) noted that "the command-and-control leadership style associated with men is not the only way to succeed" (p. 119). Research suggests that effective managers should use both traditionally masculine and feminine management techniques, depending on the situation. A study by Coffman (1985) indicated that effective leaders utilize both task (traditionally masculine) and people (traditionally feminine) orientations. Yet men and/or the masculine style of management continue to be the standard by which all others are judged (Rosener, 1993).

The belief that the stereotypically masculine style of management should be archetypical in modern organizations is outmoded (Bem, 1974; DeWine, 1987; Rosener, 1990). As Kon (1975) pointed out, "the relaxation of rigid stereotyping of people according to sex extends the potential of individual self-expression, from which both society and the individual stand to gain" (p. 663). Berryman-Fink (1985) proposed that "management, which traditionally has been male-oriented,
might profit from examining the communication skills which women managers bring to organizations" (p. 312). Berryman-Fink continued by suggesting that "women already in management can help create androgynous or behaviorally flexible management practices by emphasizing their unique communication skills" (1985, p. 312). Theoretically a manager who is behaviorally flexible and who appropriately uses both feminine and masculine styles of behavior, or who is androgynous, should be a more effective manager than one who uses exclusively feminine or masculine styles of behavior.

Modern theorists agree that managers should be able to competently communicate in a wide variety of situations, especially since the role of the contemporary manager is becoming more difficult and complex (Eckhardt, 1984). This increased complexity of organizations as well as management also makes it essential for managers to exercise flexibility (Smith, 1989). According to Smith, "managers can no longer rely on simplistic, narrowly focused solutions to solve most of their problems; instead, they need to attack problems from multiple directions, developing solutions that take numerous perspectives into account" (1989, p. 51). Gates, Blanchard, and Hersey (1976) declared that successful leaders are those "who can adapt their behavior to meet the demands of their own unique environment" (p. 348). One way
to achieve this may be by behaving androgynously and practicing behavioral flexibility.

Managers of modern organizations who utilize an androgynous management style, situationally using both traditionally feminine and masculine methods of managing, should be more successful. The predominantly masculine style of managing is outmoded and the predominantly feminine style is disenchanting as well. The present study attempted to examine the relationship between psychological sex and managerial effectiveness.

Definition of Terms

**System.** A system is "any group of entities which are interrelated so as to perform some function, or reach some goal" (Elliott, 1980, p. 85).

**Sex-Role Stereotype.** Sex-role stereotype is the socially defined behavior deemed appropriate for one's biological sex.

**Psychological Sex.** Psychological sex represents the extent to which a person identifies with and behaves in a traditionally feminine (nurturing, expressive, relationship-oriented) and/or traditionally masculine (dominating, instrumental, task-oriented) manner.

**Masculine Behavior.** Masculine behavior is behavior traditionally described as appropriate for males (task-oriented). Masculine behavior is operationally defined by scores on a modified version of the Bem Sex-Role Inventory
Adjectives describing masculine behavior include dominant, assertive, competitive, and independent.

**Feminine Behavior.** Feminine behavior is that behavior traditionally deemed appropriate for females (relationship oriented). Feminine behavior is operationally defined by scores on a modified version of the Bem Sex-Role Inventory (Wheeless & Dierks-Stewart, 1981). Adjectives describing feminine behavior include understanding, sensitivity, sincere, and helpful.

**Androgynous Behavior.** Androgynous behavior is behavior that exhibits prominent feminine and masculine characteristics. Androgynous behavior is operationally defined by scores on a modified version of the Bem Sex-Role Inventory (Wheeless & Dierks-Stewart, 1981).

**Total Quality Management.** Total Quality Management (TQM) is "a comprehensive philosophy of living and working in organizations that emphasizes the relentless pursuit of continuous improvement" (Chaffee & Sherr, 1992, p. 1). TQM involves the attention and devotion to quality goods and services by every member of an organization, from top to bottom. The consummate goal of TQM is zero defects.

**Effective Management.** Effective management in this study is defined as management that has been recognized as superior and has met quality standards at a corporation practicing, and nationally recognized for, Total Quality
Management (TQM). Effective management was measured by the achievement of the Deming Prize for excellence in Total Quality Management, granted by the Union of Japanese Scientists and Engineers.

Significance of the Study

This study is significant to the communication discipline, to the study of organizational communication, and to organizations. For example, this study is relevant to the communication field because of its theoretical approach to organizational communication. Weick (1983) stated that theory "can give coherence and identity to a field" (p. 15). Corman, Banks, Bantz, and Mayer (1990) pointed out that theory is able to guide behavior and practice in the "real world." The present study attempted to examine organizational communication from a systems perspective. By examining organizational communication using systems theory, communication scholars are better able to predict and interpret organizational behavior. This study investigated the communication behaviors of effective managers in a successful organization. Theoretically, managers who behave in an androgynous manner should be more successful, yet the only way to establish the relevance of this theory is to test it on actual, successful managers. Rather than simply relying on speculation, this study systematically attempted to validate the theory that successful managers are androgynous. Therefore, this study
will add to the theoretical basis of the communication field, particularly to the study of organizational communication.

In 1977, Farace, Monge, and Russell challenged organizations to "rationalize and investigate the nature of the communication activities in the organization" (p. 45). Numerous studies have indicated that a manager's communication style is related to job satisfaction and organizational effectiveness (Adams, 1990; Bengston & Shields, 1985; Fish & Adams, 1985). Scandura and Graen (1984), for example, conducted research that analyzed the effects of managerial communication styles on job satisfaction and productivity. The results revealed that as the quality of the manager's interaction with subordinates improved, job satisfaction and productivity improved also. Managerial communication styles have also been linked to business unit performance (Slater, 1989) and task attraction (Wheeless & Reichel, 1990), two variables which are linked to job satisfaction as well.

The present study attempted to answer the challenge made by Farace, Monge, and Russell and attempted to examine and explore the nature of communication and the effects of communication within an organization. In addition, it is possible that by conducting studies that investigate the relationship between managerial communication style and
effectiveness that organizations will recognize the importance of communication behaviors in organizations.

Summary

This chapter stated the problem and defined the terms to be used in the study. In addition, Chapter One discussed the significance of the study. The subsequent chapter will review the pertinent literature on systems theory as it applies to organizational communication. Also, the study of organizational communication will be discussed, particularly the research on communication style and management. Finally, the measurement of psychological sex and of effective management will be addressed.
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Chapter One described the problem, the significance of the present study, and defined the terms used throughout the study. Chapter Two will review systems theory as it applies to organizational communication. In addition, the research on communication style and management will be discussed. Finally, the measurement of psychological sex and of effective management will be addressed.

Organizational Communication and Systems Theory

Goldhaber (1979) defined organizational communication as "the process of creating and exchanging messages within a network of interdependent relationships to cope with environmental uncertainty" (pp. 13-14). He identified the paradigm of organizational communication to have three consistent properties: (1) a complex, interdependent open system, (2) messages, and (3) "people and their attitudes, feelings, relationships, and skills" (Goldhaber, 1979, p. 13). Organizational communication occurs within an interdependent, open system because all components affect and are affected by the other components in the system. The messages are the communication acts that make it possible for the organization to operate and exist. It would be
impossible for organizations to exist in the absence of communication. Organizational communication occurs between "people and their attitudes, feelings, relationships, and skills" (Goldhaber, 1979, p. 13), which indicates that every aspect of a person's communicative behavior is pertinent to organizations.

Khailov (1968) stated that "in any field of knowledge, the study of interaction leads logically to the concept of system organization" (p. 47). Perhaps it is for this reason that systems theory is prevalent in studies of human communication. Organizations may be classified as social systems, and all social systems are comprised of the "patterned activities of a number of individuals" that are "complementary or interdependent with respect to some common output or outcome" (Katz & Kahn, 1966, p. 17).

The systems theory of communication focuses on the relationships and interdependence among the elements of a system (Katz & Kahn, 1966; Littlejohn, 1992; Monge, 1977). Systems theory describes the world as consisting of "interlinked sets of components hierarchically organized into structural wholes which interact through time and space, are self-regulating, yet capable of structural change" (Monge, 1977, p. 20). The primary focus of the systems theory of communication is the concept of organization (Monge, 1977). Laszlo (1972) explained that "contemporary general systems theory seeks to find common
features in terms of shared aspects of organization" (pp. 19-20).

Systems theory has been referred to as a general and unified theory of organizational communication (Grunig, 1975). Systems theory views organizations from an open-system approach, in contrast to traditional organizational theories, which tended to view human organizations as closed systems (Katz & Kahn, 1966). In an open-system approach, the components of an organization, including the persons who are involved and their behaviors, are viewed as interdependent. Therefore, every activity in an organization, including the communicative behaviors of its members, affects every other activity directly or indirectly. As Goldhaber (1979) pointed out, "every action has repercussions throughout the organization" (p. 43).

Katz and Kahn (1966) stressed the importance in recognizing the equifinality of an open system; that there is normally more than just one way to achieve a desired goal. Katz and Kahn insisted that flexibility, even more than stability, is an important requirement in the maintenance of organizations (1966). If Parsons' (1951) concept that organizations constantly adjust to achieve equilibrium is accepted, it is evident that flexibility is imperative. This postulate implies that it is necessary for organizations and their managers to behave in a flexible manner and to practice flexibility in communication styles.
Management Styles

One of the more prevalent areas of research in organizational communication concerns the study of management styles. According to Bantz (1983), management style "is one of the ongoing areas of research in organizational behavior and organizational communication" (p.62). Buckham (1990) defined management style as "the ways in which the leader of an organization deals with people inside and outside that organization so that the goals of the organization may be achieved" (p. 32).

One of the earliest models of management styles was proposed by Bales (1951, 1953) and included two classifications of leaders, those with a task orientation and those with a socioemotional orientation. These two leadership roles were viewed as complementary and both were considered essential for the successful functioning of the group. Hersey and Blanchard (1977) extended Bales's design and proposed the model of Situational Leadership.

The model of Situational Leadership similarly consists of task behaviors and relationship behaviors. Task behavior is defined as "the extent to which a leader engages in one-way communication by explaining what each subordinate is to do as well as when, where, and how tasks are to be accomplished" (Gates, Blanchard, & Hersey, 1976, p. 349). Relationship behavior is defined as "the extent to which a leader engages in two-way communication by providing socio-
emotional support, 'psychological strokes,' and facilitating behaviors" (Gates, Blanchard, & Hersey, 1976, p. 349).

According to Hersey and Blanchard (1977), the style of choice is a "coaching" style. When a manager uses the coaching style, both task and relationship behaviors are prominent. The coaching manager uses situationally appropriate behaviors. The model proposed by Hersey and Blanchard continues to be used in research today (Adams, 1990; Cullinae & Stacks, 1989; Harris, 1987a; 1987b; Keenan, Hurst, Dennis, & Frey, 1990; Long, 1987).

Numerous contemporary management theorists propose management styles similar to Hersey and Blanchard, stressing the importance of consolidating task behaviors and relationship behaviors (Argyris, 1971; Blake & Mouton, 1964; 1981; Ouchi, 1981; Peters & Waterman, 1982). Essentially, the management theorists discussed above illustrate management styles that integrate the best of traditionally masculine and traditionally feminine behavioral styles. Blanchard and Sargent (1984) pointed out that the extreme behaviors of autocratic (task-oriented) and democratic (relationship-oriented) managers are typically stereotypes based on biological sex.

Management Style and Biological Sex

The bipolar models of management style discussed above resemble the model of the division of labor in families proposed by Parsons (1955). Parsons contended that, in
nuclear families, females and males have complementary roles. According to this theory, the female role is expressive or socioemotional and the male role is task or instrumental. The divisions of labor are explicitly divided and the differences between men and women are accentuated and encouraged, and are viewed as pre-determined and necessary.

A study by Bartol and Wortman (1975) challenged Parsons' (1955) assumption about the female role when female subjects scored higher on traditionally masculine attributes than did male subjects. In fact, research has revealed few differences in the communicative behaviors of men and women (Thorne, Kramarae, & Henley, 1983). In 1980, Birdsall found that "male and female managers all used basically the same set of broadly defined communicative behaviors" to accomplish tasks (p. 194). Dobbins and Platz (1986) conducted a meta-analytic review of 17 studies examining sex differences in leadership. Results demonstrated no difference in the amounts of initiating structure (task oriented) and consideration (relationship oriented) behaviors exhibited by female and male managers. Also, both men and women managers were found to have subordinates who were equally satisfied.

MacDonald (1981) proposed that the differences between men and women do not exist in actual behavior, but in differing perceptions of the same behavior. Evidently,
perceived differences are more a function of sex-role stereotypes than biological sex. Research shows that sex-role stereotypes continue to thrive in today's organizations. Studies indicate that men continue to regard men to be the best managers (Brenner, Tomkeiwicz, & Schein, 1989; Izraeli, 1984; McCallister & Gaymon, 1989). These attitudes are reflected in a recent study in which, when compared to male MBAs of similar education, age, experience, and performance, female MBAs received lower salary increases and fewer management promotions (Cox & Harquail, 1991).

Fottler and Bain (1980) noted that:

at a time when external barriers to women are being cast aside through legislation and vocal disavowal of sex-role stereotypes in some quarters, there apparently are deep rooted attitudes that continue to direct both sexes toward traditional occupational roles. (p. 148)

It seems that sex stereotypes persist.

Studies have consistently shown that sex stereotypes, when tested for significance in real-life organizations, do not perform a legitimate function. Birdsall (1980) found no differences in the communication behaviors of female and male managers. Donnell and Hall (1980) in a study of sex differences in management personnel, found no differences in managerial philosophy between female and male managers, nor could a distinction be made between the way females and males manage an organization's technical and human
resources. In addition, Donnell and Hall (1980) discovered that men and women obtained similar results from subordinates. It is important to note, however, that while one may hope or expect that the female and male managers are similar because they are androgynous, studies show that both men and women tend to adopt traditionally masculine methods of managing (Birdsall, 1980).

Research indicates that women are adapting to the demands and expectations of organizational settings. Birdsall (1980) found that both female and male managers, on the average, rate themselves as masculine on the Bem Sex-Role Inventory. Since traditionally masculine roles are viewed by society as superior to traditionally feminine roles (Powell & Butterfield, 1979, 1989), it is possible that women and men may conform and adopt the socially desirable course of behavior (or at least report that they do).

When studying the managerial styles of 303 women, Moore and Rickel (1980) found the managerial behavior of women to differ across occupational levels and organizational settings. Women in non-traditional management roles and in higher occupational levels tend to adopt the traditionally masculine sex-role stereotype and behave in a masculine manner (Moore & Rickel, 1980). In studies by Schein (1973, 1975), both female and male executives described a successful manager as one who is masculine. Similarly,
Powell and Butterfield (1979, 1989) found that the "good manager" is described by business students as traditionally masculine, so it is not surprising that managers adopt a masculine style of management.

Gomez-Mejia (1983) discovered that occupational socialization tends to reduce sex differences in work related attitudes: the longer women are "taught" the traditionally masculine, autocratic way of management, the more likely they are to adopt it. However, research has indicated that practicing the stereotypically masculine style of behavior can have negative results such as low employee satisfaction, especially for female managers (Camden & Kennedy, 1986).

Management Style and Psychological Sex

Researchers agree that adhering to a masculine style of communicating and managing is restrictive (Bem, 1974; Cann & Siegfried, 1990; DeWine, 1987; Rosener, 1990; 1993). A study by Coffman (1985) indicated that effective leaders utilize both task (traditionally masculine) and people (traditionally feminine) orientations. Korabik (1982b) proposed that "leadership style is more closely related to sex-role orientation than to biological sex" (p. 329). It may be helpful, therefore, to investigate the concept of psychological sex, rather than biological sex, as it relates to management style and leadership behavior.
In 1974, Bem developed a sex-role inventory that measures masculine, feminine, undifferentiated, and androgynous behaviors. Bem (1974) proposed that an androgynous person could behave either in a masculine or feminine manner, depending on the situation and the appropriateness of the behavior. Bem also suggested that persons adhering strictly to the stereotypically feminine or masculine modes of behavior "might be seriously limited" (1974, p. 155).

Psychological sex has been shown to contribute to an individual's personal and social effectiveness (Quackenbush, 1987). Research suggests that psychological sex is a better predictor of management style and leadership behavior than is biological sex (Korabik, 1981, 1982a, 1982b, 1990; Korabik & Ayman, 1987). According to Bem (1974, 1975), androgynous persons are capable of appropriately adapting to varying situations. They are described as behaviorally flexible.

Pearson, Turner, and Todd-Mancillas (1991) defined behavioral flexibility as "the ability to change and alter behavior to adapt to new situations and relate in new ways as necessary" (p. 26). According to Pearson et al. (1991), behavioral flexibility promotes successful communication. Persons who are able to adapt to different situations are believed to be more effective communicators. Androgynous
persons, then, who are by definition behaviorally flexible, can be characterized as more effective communicators.

Merrill and Reid (1981) identified a concept similar to the Pearson et al. (1991) notion of behavioral flexibility: versatility. Merrill and Reid defined versatility as "the extent to which others see us as adaptable, resourceful, and competent; it is behavior that...accommodates" (1981, p. 44). In addition, Merrill and Reid (1981) stated that versatility "represents how others view a person's ability to adapt to others and deal with relationships effectively" (p. 89). A relationship that is versatile "increases the effectiveness and productivity of both parties" (Merrill & Reid, 1981, p. 89). Androgynous persons, who are particularly adaptable, can perhaps enhance effectiveness and productivity with such versatility and flexibility.

Expanding on Merrill and Reid's model, Bolton and Bolton (1984) identified "style flex" as the goal of effective work relationships. Bolton and Bolton (1984) maintain that a person practicing style flex behaves appropriately for the situation. They explain that "doing what is appropriate is the essence of style flex. The person who uses style flex well reads situations accurately and responds in ways that are fitting" (1984, p. 54). Theoretically, therefore, persons who behave in a flexible and versatile manner do practice style flex as described by

According to Bem (1974, 1975), androgynous persons are more likely than masculine, feminine, or undifferentiated persons to demonstrate behavioral adaptability across situations. This should indicate that persons using an androgynous management style may be more effective in organizations, since effective management has been described as both flexible and adaptable by researchers (Adams, 1990; Goldhaber, 1979, 1986; Goulet, 1991; Keenan et al., 1990). Rosener (1990) stated that a "nontraditional leadership style is well suited to the conditions of some work environments and can increase an organization's chances of surviving in an uncertain world...there is strength in a diversity of leadership styles" (p. 120). According to Cann and Siegfried (1990) effective leaders "must have the flexibility to engage in behaviors associated with both masculine and feminine styles" (p. 418). Androgynous managers are best suited for this task.

In 1984, Blanchard and Sargent argued that most managers continue to behave either autocratically (task-oriented) or democratically (relationship-oriented). Without "recognizing the importance of both results and people," managers are functioning as merely "half managers" (Blanchard & Sargent, 1984, p. 83). Because of this, business and industry have been deprived of "valuable human
resources and managerial talent" (Bolton & Humphreys, 1977, p. 234). Rosener (1990) suggested that organizations "should expand their definition of effective leadership" beyond the traditional masculine mode of leadership (p. 125). One promising possibility to improve leadership is to include feminine modes of leadership as well as masculine modes of leadership, or to adopt an androgynous leadership/management style.

In the same vein, Berryman-Fink and Fink (1985) maintained that successful management possesses an androgynous future. They stated:

Progressive managers--male and female--no longer concentrate on male-typical traits and behaviors. The trend is toward a blending of male (task-oriented) and female (people-oriented) styles. Managers today and in the future must possess a repertoire of gender-flexible, or androgynous, behavior that combines competition and cooperation, confrontation and collaboration, telling and asking, empathy and detachment, logic and emotion, discipline and compassion, aggression and support. (p. 27)

Accordingly, DeWine (1987) stated that "leaders should pay particular attention to...androgynous traits" (p. 22). DeWine also asserted that "we need androgynous leaders to meet the demands of a changing society" (1987, p. 26).

Overcoming the sex-role stereotypes that have dominated the
thinking of society is necessary in order to move on. One way of doing this is to recognize the importance of broadening society’s definition of the effective manager to include behaviorally versatile individuals who incorporate both feminine and masculine styles of behavior into their repertoire of skills.

As a result of the literature, the following research hypotheses were formulated:

$H_1$: The number of androgynous effective managers will be significantly greater than feminine effective managers in a TQM organization.

$H_2$: The number of androgynous effective managers will be significantly greater than masculine effective managers in a TQM organization.

$H_3$: The number of androgynous effective managers will be significantly greater than the summed total of feminine and masculine effective managers in a TQM organization.

In addition to the above hypotheses, the following research question will be considered:

$RQ_1$: Is there a significant difference between the number of female androgynous managers and the number of male androgynous managers in a TQM organization?

**Measurement of Psychological Sex**

One of the first, and most popular, assessments formulated to measure psychological sex was the Bem Sex-Role Inventory (Bem, 1974). The original, full-length Bem Sex-
Role Inventory (BSRI) measured femininity, masculinity, and androgyny using an adjective checklist containing 20 feminine adjectives, 20 masculine adjectives, and 20 sex-neutral adjectives. For each adjective, there is a 7-point Likert rating scale with the endpoints labelled "never or almost never true" at one end and "always or almost always true" at the other end.

The BSRI treated femininity and masculinity as two separate continua, rather than as opposite ends of a single continuum. The BSRI scored femininity by averaging the score resulting from the 20 feminine adjectives and scored masculinity by averaging the 20 masculine adjectives. A person scoring high on femininity and low on masculinity was classified as feminine and a person scoring high on masculinity and low on femininity was considered masculine. A person scoring high on both femininity and masculinity is classified as androgynous. A person scoring low on both femininity and masculinity was classified as undifferentiated.

Bem (1974) tested the reliability and consistency of the Sex-Role Inventory and concluded that it was valid and reliable ($r = .80$ and $.82$ for femininity and $r = .86$ and $.86$ for masculinity). Further studies have both accepted (Montgomery & Burgoon, 1980; Putnam & McCallister, 1980) and questioned (Locksley & Colten, 1979; Pedhazur & Tetenbaum, 1979) the reliability and validity of the instrument.
In an attempt to improve and update the Bem Sex-Role Inventory, Wheeless and Dierks-Stewart (1981) proposed a modified version of the Bem Sex-Role Inventory that included twenty items: ten measuring femininity and ten measuring masculinity. In a study by Wheeless and Duran (1982), the modified measure was found to be reliable ($r = .91$ for femininity and $r = .88$ for masculinity).

Measurement of Effective Management

This study examined effective management using a Total Quality Management organization. Total Quality Management (TQM) has been defined as "the integration of quality and management methods, practices, concepts, and beliefs into the culture of an organization to bring about continuous improvement" (Anderson & Daigh, 1991, p. 21). TQM is "a comprehensive philosophy of living and working in organizations that emphasizes the relentless pursuit of continuous improvement" (Chaffee & Sherr, 1992, p. 1). TQM, according to Anderson and Daigh (1991), is "most appropriately defined as a system or a process rather than a program" (p. 21).

TQM necessitates altered perceptions in the role of the manager. The most successful TQM systems are those that shift from traditional attitudes about managing to more modern, adaptable styles (Dawson, 1992). Authoritarian management styles contradict TQM methods of managing. TQM is a participative management style that empowers the
workforce (Chaffee & Sherr, 1992; Dawson, 1992; Macchia, 1992).

Many improvements in organizations practicing TQM may be attributed to TQM management techniques including: a 30% decline in sick leave (Thorn, 1988), a 20% reduction in debt, assembly time cut almost in half, and the highest earnings in the history of an organization (McDonnell, 1992). In addition, a study by Mangan (1992) indicated that employees feel better about their jobs and communication was improved in organizations that adopt TQM.

Effective management in this study is management that has been recognized as superior and has met quality standards at a corporation practicing, and nationally recognized for, achievements in Total Quality Management. Effective management was measured by the achievement of the Deming Prize for excellence in Total Quality Management, granted by the Union of Japanese Scientists and Engineers. In order to be identified as an effective manager, it was necessary that the manager had achieved the Deming Prize.

Summary

The preceding chapter reviewed the literature concerning systems theory as it applies to organizational communication. In addition, the study of organizational communication was discussed, particularly the research on communication style and management. Finally, the measurement of psychological sex and of effective management
were examined. Chapter Three will address the method by which the study will be conducted.
CHAPTER III

METHODOLOGY

Introduction

The previous chapter reviewed the literature pertaining to the study. Specifically, Chapter Two discussed the study of organizational communication, particularly the research concerning management style and biological sex, management style and psychological sex, the measurement of psychological sex, and the measurement of effective management. This chapter will discuss the variables, the participants who were used in the study, and the method by which the study was conducted.

Variables

The hypotheses of this study predicted that psychological sex would affect managerial effectiveness. The manager's psychological sex was identified as the independent variable and managerial effectiveness was identified as the dependent variable.

Participants

Participants in this study included managers of a large organization practicing Total Quality Management. The managers used in this study have been recognized for their effective management practices. Effective management was defined as management in an internationally successful TQM
organization that has been recognized for excellence in TQM practices. Effective management was measured by the achievement of the Deming Prize for excellence in Total Quality Management, granted by the Union of Japanese Scientists and Engineers. Each participant was asked to complete a demographic questionnaire (See Appendix A). In addition, it was important to the purpose of this study that a representative sample of male and female managers be surveyed. According to the U.S. Department of Labor, Bureau of Labor Statistics (1994), there are 53 percent males and 47 percent females in executive, administrative, and managerial positions. This study attempted to correspond with the national percentages. In order to have a representative sample that was also statistically powerful, the study needed at least at least five participants per cell. With a total of three cells (feminine, masculine, and androgynous), at least 15 participants were necessary to test the hypotheses. A total of 27 males (52%) and 25 females (48%) were surveyed, resulting in a representative, statistically powerful sample.

Instrumentation

In addition to the demographic questionnaire, participants were provided with the Wheeless and Dierks-Stewart (1981) modified version of the Bem Sex-Role Inventory (Bem, 1974) (See Appendix B). The Bem Sex-Role
Inventory (BSRI) is the most popular instrument used to measure femininity, masculinity, and androgyny.

The BSRI scores femininity by averaging the score resulting from the 20 feminine adjectives and scores masculinity by averaging the 20 masculine adjectives. A person scoring high on femininity (above the mean, $M = 4.44$) and low on masculinity (below the mean, $M = 4.57$) is classified as feminine. A person scoring high on masculinity (above the mean, $M = 4.57$) and low on femininity (below the mean, $M = 4.44$) is considered masculine. A person scoring low on both femininity and masculinity is classified as undifferentiated. A person scoring high on both femininity and masculinity is classified as androgynous.

The Bem Sex-Role Inventory is one of the most widely used instruments in communication research (Beere, King, & King, 1991). The BSRI was tested by Bem (1974) for reliability and consistency of the Sex-Role Inventory and was found to be valid and reliable ($r = .80$ for femininity and $r = .86$ for masculinity). However, results using the BSRI have been inconsistent (Locksley & Colten, 1979; Montgomery & Burgoon, 1980; Pedhazur & Tetenbaum, 1979; Putnam & McCallister, 1980). Attempting to improve the BSRI, Wheeless and Dierks-Stewart (1981) revised the Bem Sex-Role Inventory to include adjectives that best described females and males in American society. The revised version
includes ten adjectives that measure femininity and ten adjectives that measure masculinity. Wheeless and Duran (1982) found the modified measure to be reliable ($r = .91$ for femininity and $r = .88$ for masculinity). Psychological sex was measured in this study using the Wheeless and Dierks-Stewart modified BSRI (1981). The mean for measuring femininity was 4.44 and the mean for masculinity was 4.57.

**Procedure**

After receiving approval from the University of North Texas Institutional Review Board for the Protection of Human Subjects Research (IRB), the questionnaires were administered by a proctor on the premises of the organization. The participants were told that their participation was requested for a study of successful managers in a Total Quality Management organization. The managers were told that the purpose of the study was to examine characteristics of managers who have been recognized for excellence in Total Quality Management.

Each participant was asked to read and sign a written consent form (See Appendix C). The questionnaires took approximately ten minutes to complete. The questionnaire included three elements: the written consent form, the demographic questionnaire, and the Wheeless and Dierks-Stewart (1981) modified version of the BSRI (Bem, 1974).

All respondents were guaranteed anonymity and confidentiality. To help reduce researcher bias, the
questionnaire required minimal personal interaction between the proctor and the participants. Instructions were written on the questionnaire in an effort to standardize the interaction process. In addition, the proctor exercised care in order to ensure that only she and the participants were present in the survey area.

Analysis of Data

Scoring of the modified BSRI. In order to calculate the psychological sex of the participants, the Bem (1974) method of scoring the BSRI was used. A person's feminine score was calculated by averaging the sum of the ratings for the feminine items and the person's masculine score was calculated by averaging the sum of the ratings for the masculine items. A person scoring above the mean on femininity ($M = 4.44$) and below the mean on masculinity ($M = 4.57$) was rated as feminine. A person scoring above the mean on masculinity ($M = 4.57$) and below the mean on femininity ($M = 4.44$) was rated as masculine. A person scoring below the mean on both femininity and masculinity was rated as undifferentiated. A person who scored above the mean on both femininity and masculinity was rated as androgynous. Feminine items included the descriptors gentle, tender, understanding, warm, sensitive to the needs of others, compassionate, sincere, helpful, eager to soothe hurt feelings, and friendly. Masculine items included the descriptors acts as a leader, has leadership abilities,
dominant, aggressive, willing to take a stand, forceful, assertive, strong personality, competitive, and independent.

The objective of the current study was to examine the relationship between androgyny and managerial effectiveness. For the purposes of this study, femininity, masculinity, and androgyny scores were of specific interest. However, undifferentiated scores were not.

**Chi-square.** Chi-square analyses test for significant differences between observed and theoretical values and was used to examine the hypotheses in this study. To calculate chi-square, the expected frequency of an occurrence for each category is subtracted from the observed frequency, then squared and divided by the expected frequency. The resulting figures for each category are then summed.

The chi-square test is a discrepancy statistic (Williams, 1992) used in research to "determine whether two frequency distributions differ significantly from one another" (Borg & Gall, 1989, p. 356). The purpose of this study was to investigate the relationship between psychological sex and managerial effectiveness. The chi-square test for significance was most applicable to determine significant relationships with nominal data. Chi-square analyses help to determine if significant differences exist between/among categories made up of nominal data. The significance level of the chi-square tests were set at $p < .05$. 
Summary

The purpose of this chapter was to describe the participants used in the study, the instrumentation and procedure, and the analysis of the data. Chapter Four will present the results of the study.
CHAPTER IV

RESULTS

Introduction

The purpose of this study was to examine the relationship between psychological sex and managerial effectiveness. Chapter Three described the method by which the study was conducted. This chapter will include a description of the manner by which the data was collected and a description of the participants. In addition, it will include the tests of the three hypotheses and the research question.

Description of the Participants

The participants of this study included 52 managers from a large, internationally known organization. All of the managers were based in an organizational site located in a large, metropolitan community. Separated by sex, 25 of the managers were female (48%) and 27 were male (52%). Segregated by ethnicity, 42 (80.8%) participants were Caucasian, 3 (5.7%) were Asian American, 3 (5.7%) were Mexican American, 2 (3.8%) were Hispanic, and 2 (5.7%) were African American (See Figure 4.1).

Classified according to age, 5 (9.6%) of the managers were under 30, 18 (34.6%) were between the ages of 30 and
Figure 4.1. Frequency of Race

40, 19 (36.5%) were between the ages of 41 and 50, 9 (17.3%) were between the ages of 51 and 60, and 1 (1.9%) was between the ages of 61 and 70. Formal education ranged from 6 (11.5%) managers with a high school education, 5 (9.6%) with an Associate's (2-year) degree, 18 (34.6%) with a Bachelor's degree, 19 (36.5%) with a Master's degree, and 4 (7.7%) managers with a Doctorate (See Figure 4.2).
Figure 4.2. Frequency of Education

34.62%

Education

- Doctorate
- Bachelor's
- Master's
- Two-year Associates
- High School

The average length of employment at the organization was 6.5 years. Official positions in the organization included such titles as quality director, quality facilitator, quality engineer, senior quality trainer, senior quality consultant, TQM facilitator, TQM manager, and TQM analyst. In summary, the average participant surveyed
could be described as a white male between the ages of 30 and 50 possessing an advanced degree with several years experience with the company.

The survey was distributed to 52 managers who were identified as effective. All 52 completed surveys were collected for a response rate of 100%, an extremely high response rate. The successful response rate was due in part to survey administration by a proctor who picked up the survey in person at a specified time. In addition, all of the managers had been notified by the public relations director that the survey would be administered to them and their cooperation would be appreciated.

Reliability

As stated earlier, the Wheeless and Dierks-Stewart modified version of the Bem (1974) Sex-Role Inventory was used in this study to measure femininity, masculinity, and androgyny. Wheeless and Duran (1982) found the modified measure to be reliable (r = .91 for femininity and r = .88 for masculinity). The reliability of the Wheeless and Dierks-Stewart (1981) modified version of the BSRI was tested for the current study using Cronbach's Alpha coefficient. The instrument was found to be reliable (r = .89 for femininity and r = .85 for masculinity). The sample resulted in a large effect size (.50) at an alpha level of .05, with a power of .86 with 2 degrees of freedom.
(Cohen, 1977). Because of the large effect size, only large differences between groups and categories were apparent.

Tests of Hypotheses

Hypothesis One. Hypothesis One predicted that the number of androgynous effective managers would be significantly greater than feminine effective managers. Hypothesis one was supported (See Table 4.1). The proportion of subjects who described themselves as androgynous was significantly above random ($p < .05$). Managers who classified themselves as androgynous accounted for 77% of the participants (40 managers). Managers who classified themselves as feminine accounted for 19% of the participants (10 managers). Chi-square analysis of subjects’ scores equaled 46.7 with 2 degrees of freedom ($p < .05$).

Hypothesis Two. The second hypothesis predicted that the number of androgynous effective managers would be significantly greater than masculine effective managers. Hypothesis two was also supported (see Table 4.1). The proportion of subjects who described themselves as androgynous was significantly above random ($p < .05$). Androgynous managers consisted of 77% of the participants, while masculine managers accounted for only 4% of the participants (2 managers).

Hypothesis Three. The third hypothesis predicted that the number of androgynous effective managers will be
Table 4.1
Managers Scores Classified by Biological Sex

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>All Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Androgynous</td>
<td>19</td>
<td>70</td>
<td>21</td>
</tr>
<tr>
<td>Masculine</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Feminine</td>
<td>8</td>
<td>30</td>
<td>2</td>
</tr>
</tbody>
</table>

Chi-square = 46.7 with 2 degrees of freedom (p < .05)

significantly greater than the summed total of feminine and masculine effective managers. This hypothesis was supported as well (see Table 4.1). The proportion of subjects who described themselves as androgynous was significantly above random (p < .05). As stated previously, 77% of the managers questioned rated themselves as androgynous (40 managers). The summed total of feminine and masculine managers accounted for 23% of the participants (12 managers).

Research Question. The single research question asked by this study was: "Is there a significant difference between the number of female androgynous managers and the number of male androgynous managers?" Of the 52 managers
surveyed, 21 females (84% of the females and 40% of the sample) and 19 males (70% of the males and 37% of the sample) claimed to behave androgynously in interactions with subordinates (See Table 4.2). There was not a significant difference between the number of female managers and the number of male managers who reported themselves to be androgynous at the .05 level of significance. However, the difference was significant at the .10 alpha level. Although the results were not significant at the \textit{a priori} alpha level of .05, the difference at .01 should not be ignored. One reason for the lack of significance may be the moderate effect size (.30) at the alpha level .05, with a power of .56 with one degree of freedom. The difference between female and male androgyny scores were small, so they were not apparent at .05. It is possible that with an
increased sample size the difference would have been larger. If such is the case, female managers rated themselves more androgynously than did the male managers.

Individuals' self-descriptions were examined. The Bem Sex-Role Inventory (1974) was constructed by finding adjectives which were judged as more desirable for a man, as well as adjectives considered more desirable for a woman. Traditional sex-role stereotypes predict that females would score themselves significantly higher on femininity than on masculinity and males would score themselves significantly higher on masculinity than on femininity. Table 4.3 presents the means and standard deviations of the managers' BSRI scores by sex. Contradicting traditional sex-role

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th>Males</th>
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<tbody>
<tr>
<td></td>
<td>Femininity</td>
<td>Masculinity</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Femininity</td>
<td>5.40</td>
<td>8.15</td>
</tr>
<tr>
<td>Masculinity</td>
<td>5.29</td>
<td>7.11</td>
</tr>
<tr>
<td>Males</td>
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</tbody>
</table>
stereotypes, male managers scored higher on femininity (M = 5.33) than masculinity (M = 5.12). Females scored only slightly higher on femininity (M = 5.40) than masculinity (M = 5.30).

Summary

This chapter presented the results of the study, described the participants of the study, and submitted the tests of the hypotheses and the research question. Chapter Five will scrutinize the results of the study.
CHAPTER V

DISCUSSION OF RESULTS

Introduction

The preceding chapter presented the results of the current study. Chapter Four also described the participants and revealed the outcome of the tests of the hypotheses and research question. This chapter will discuss the results of the study and will present the limitations as well as the implications for future research.

Total Quality Management

Effective management in this study was defined as management that had been recognized as superior within an organization internationally recognized for their achievements in Total Quality Management (TQM) by winning the Deming Prize. An organization succeeding in Total Quality Management was used since TQM, quality, and excellence have been recognized as essential parts of success for the last 20 years (Robson, 1988). Also, in order to remain globally competitive, it is necessary that organizations compete for quality awards (Haavind, 1989). That a TQM organization can accomplish the strenuous task involved with applying for and achieving a quality award such as the Deming indicates that the organization is exceptional. Managers within that organization who are
recognized with awards for their TQM efforts are exceptional as well.

TQM is a "long-term, organization-wide strategy" that involves "the integration of quality and management methods, practices, concepts, and beliefs into the culture of an organization to bring about continuous improvement" (Anderson & Daigh, 1991, p. 21). TQM is a holistic approach to managing organizations. Therefore, it is essential to the success of TQM that both instrumental or task (masculine) and interpersonal or relationship (feminine) orientations are employed by managers. TQM is extremely task oriented, working constantly toward zero defects. But TQM is also interpersonally oriented, emphasizing employee involvement, employee empowerment, and employee satisfaction (Anderson & Daigh, 1991). A TQM organization's management team would need to encompass both feminine and masculine modes of managing in order to successfully work toward error-free goals. Adopting either a predominantly feminine or a predominantly masculine management style would theoretically be detrimental to the TQM process.

Because masculine modes of managing are contrary to TQM methods of managing, one should not be surprised at the results of the present study. TQM organizations advocate a participative management style (Chaffee & Sherr, 1992; Macchia, 1992) requiring that managers be more flexible in their range of behaviors (Dawson, 1992). In order to be
more flexible in their range of behaviors, the managers must first possess a variety or wide range of behaviors. Not only must the manager be independent, assertive, and act as a leader, but the manager must also be supportive, be sincere, and be understanding. In other words, it is necessary that the manager behave androgynously. The findings of this study supported the notion that the successful TQM manager must possess a wide range of behavior and be flexible. In other words, the findings of this study indicated that the successful TQM manager behaves androgynously.

Organizational Communication

According to the systems theory of organizations, all components of a system affect and are affected by other components in the system, or are interdependent. Goldhaber (1979) asserted that "every action has repercussions throughout the organization" (p. 43). TQM organizations recognize the importance of systems theory as it applies to organizations by operating under the premise that no event is isolated (Klusman, 1989). All components of the system are interdependent. As stated by Darling (1992), "the leader in quality management influences the organization's behavior" (p. 3). Every activity in an organization, including the communicative behaviors of the organization members, affects every other activity directly or indirectly.
Dawson (1992) stated that in order for Total Quality Management to succeed, it is necessary for organizations to alter their perceptions. One way in which perceptions need to be altered is by recognizing the importance of communication in organizations. Communication is overwhelmingly viewed as an essential element of Total Quality Management organizations (for example, see Collett & Hall, 1987; Mills, 1987; Ray, 1988; Reynolds, 1992; Thorn, 1988). The importance of communication is reflected by research indicating that the quality of communication within an organization is correlated with job satisfaction and productivity (Scandura & Graen, 1984), business unit performance (Slater, 1989), and task attraction (Wheeless & Reichel, 1990). Attention to communication clearly should not be neglected by organizations.

As stated in Chapter One, Farace, Monge, and Russell (1977) challenged organizations to "investigate the nature" of communication within the organization (p.45). The current study attempted the task by investigating effective managers in an actual organization, rather than relying on the perceptions of college students for meaningful information. This study examined communication within a Total Quality Management organization by investigating the psychological sex of the managers as it related to their behavior with their subordinates.
Data Collection

The researcher contacted the public relations manager of the Total Quality Management organization by letter explaining the present study and asking for permission to research that organization. After granting permission, the public relations manager compiled a list of all of the company's managers. All managers received a memo from the public relations manager explaining that a research survey would be administered and asking for their cooperation.

Afterwards, the list was restricted to include only those managers who had been recognized by the organization as superior in the Total Quality Management process by achievement of the Deming Prize. A proctor then took the survey around to 52 of the managers who had been recognized as effective, left the survey with them, and told them that she would return in an hour to collect the survey. Data collection took approximately two days to complete.

Demographics of the Sample

This study corresponded with the national percentages of females and males in executive, administrative, and managerial positions. The sample was representative and statistically powerful, comprised of 25 females (48%) and 27 males (52%). The percentage of female managers, as compared to the percentage of male managers, reflects the growing number of women in management positions. As stated in Chapter One, men traditionally dominated managerial
positions (McGregor, 1967). However, as women have increased in the workforce, so too have they achieved more supervisory positions.

The sample reflected an educated management team. Since education is strongly encouraged by the organization researched by this study, the education level of the sample is not necessarily representative of managers in general. The organization studied has a reputation of hiring persons with advanced degrees and of encouraging further education once with the company. In addition, since the sample consisted of managers recognized by the organization as effective, it is possible that more educated managers are frequently viewed as more effective.

All of the managers with no formal degree beyond high school had been employed by the corporation beyond the average employment of 6.5 years. This may be a reflection of the fact that few new employees of the corporation have only a high school degree. This may also reflect the possibility that the more experience the person has, the less formal education is an essential element in managerial success.

It is possible that there is a positive relationship between education level and androgyny scores. This study demonstrated a significantly more androgynous managers than the sum of masculine and feminine managers. Holleran (1981) reported statistically significant increases in androgyny
scores among women enrolled in a women's studies course. One possibility is that as education increases, androgyny levels increase also. Since the sample of managers used for this study are almost all college educated, it is possible that college classrooms and/or college experiences may contribute to more androgynous orientations. It is also possible that some of the managers may have been exposed to the Bem Sex-Role Inventory in college and were familiar with the socially desirable answers.

Also, in a study of gifted high school girls, gifted girls were found to endorse androgynous characteristics (Howard-Hamilton & Robinson, 1991). Parallel to these findings, Benz, Pfeiffer, and Newman (1981) found that high achievers are perceived to behave androgynously. If the results of these two studies are accurate, one explanation for the high percentage of androgynous effective managers may be that people who are high achievers or gifted may be more likely to become successful managers.

**Psychological Sex**

**Masculinity.** The management style of choice has traditionally been a masculine one described in such terms as domineering, autocratic, and independent (McGregor, 1967; Powell & Butterfield, 1979, 1984, 1989; Schein, 1973, 1975). Research has suggested that people perceive the masculine style of managing to be superior (McGregor, 1967; Powell & Butterfield, 1979, 1984, 1989; Rosener, 1993; Schein, 1973,
1975). In addition, studies have indicated that both men and women manage in a masculine manner (Birdsall, 1980; Gomez-Mejia, 1983).

The results of the current study did not support the opinion that the masculine style of managing is superior nor did it support the research stating that men and women practice masculine styles of managing. On the contrary, no men rated themselves to be masculine and only 2 women reported themselves to be masculine (4% of the total sample).

One interesting observation concerning the present study is the distribution of male managers. Contrary to research indicating that managers are masculine (Powell & Butterfield, 1979; 1989; Schein, 1973; 1975), not one male manager rated himself as masculine in the present study. Of 27 male managers, 19 rated themselves as androgynous (70%) and 8 rated themselves as feminine (30%). One explanation for this occurrence may be the perceived social desirability of responses. In traditional organizations the management style of choice was traditionally masculine. However, Total Quality Management (TQM) organizations necessitate moving beyond the stereotypically masculine mode of behaving. They also require managers to include feminine behaviors as well. TQM organizations emphasize relations with employees in addition to task-related concerns. The possibility exists that the male managers were overcompensating because of an
assumed negative evaluation by the organization of their actual behaviors, which may be more masculine than reported.

**Androgynous Managers.** The results of this study reinforced the assertion by many researchers that the stereotypically masculine style of management is outmoded (Bem, 1974, 1975, 1979; DeWine, 1977; Rosener, 1990; Rosener, 1993). Bem (1975) predicted that androgyny would someday "define a new and more human standard of psychological health" (p. 643). The present study reinforced this prediction and reinforced assertions made by researchers such as Blanchard and Sargent (1984) and Berryman-Fink and Fink (1985) that progressive and successful managers are androgynous. As Berryman-Fink and Fink stated:

> Managers today and in the future must possess a repertoire of gender-flexible, or androgynous, behavior that combines competition and cooperation, confrontation and collaboration, telling and asking, empathy and detachment, logic and emotion, discipline and compassion, aggression and support. (p. 27)

Managers must recognize the importance of both results and people in order to succeed in today’s business environment. Peters and Waterman referred to this as "productivity through people" (1982).

Another important aspect of androgyny is the ability to behave situationally. The entire range of behaviors are
available for the androgynous manager to access, rather than just a few limited behaviors. The androgynous manager has a broader spectrum of behaviors to choose from in varying situations. Research has indicated that a positive relationship exists between androgyny and flexibility (Bem, 1975; Kapalka & Lachenmeyer, 1988). Numerous researchers have maintained the notion that it is necessary to utilize both feminine and masculine traits (Bem, 1974, 1975, 1977; Coffman, 1985; Gates, Blanchard, & Hersey, 1976; Smith, 1989). The results of this study support this research. The majority of effective managers rated themselves as androgynous, indicating a relationship between perceived psychological androgyny and managerial effectiveness.

Sex Composition of Androgynous Managers. When Bem (1974) originally constructed the Bem Sex-Role Inventory, research indicated that persons generally conformed to traditional sex-role stereotypes. Further research provided explanation for conformity to traditional sex-role stereotypes by suggesting that stereotypically feminine or masculine behavior may be the result of suppressing behaviors not considered desirable or appropriate (Bem, 1974, 1977). For example, traditionally men have been ostracized for behaving in a stereotypically feminine manner and women have been reprimanded for behaving in a stereotypically masculine manner.
However, women have faced a double-bind upon entering the workforce: effective management has been traditionally viewed as masculine. As a result, previous research has indicated that female managers tend to adopt masculine styles of managing (Gomez-Mejia, 1983; Moore & Rickel, 1980). With traditional sex roles relaxing to include a broader range of behavior for both men and women, women are behaving more androgynously. The results of this study are congruous with the findings by Statham (1987) that female managers are both task (masculine) and relationship (feminine) oriented.

In addition, this study supported the findings by Donnell and Hall (1980) that, in general, men and women do not differ in their management behaviors. The results of the present study supported Donnell and Hall (1980) since the majority of men and women reported that they behave androgynously. The results of the current study also support the theory that effective managers are androgynous managers.

The results of this study indicate that, as stated in Chapter One, sex stereotypes do not perform a legitimate function in real-life organizations. This study supports the findings by researchers such as Donnell and Hall (1980), Birdsall (1980) and MacDonald (1981), who have all suggested that there are few, if any differences in the managerial behavior of men and women. If differences are reported by
subordinates, the differences may not reflect actual behavior but instead reflect perceived differences of the same behavior.

Limitations of the Study

Self-Report Instruments. A notable concern of all self-report instruments is the potential for subjects to record socially desirable responses. Social desirability has been reported to be associated with self-reports of androgyny (Wheeless & Wheeless, 1981). Social desirability of responses may be an issue with the results of the current study. TQM organizations emphasize the need for both task and relationship orientations. It is very possible that the managers in the present study recorded responses that are considered socially desirable by the TQM organization, thus producing a preponderance of androgynous managers.

In addition, with self-report measures, there is always the possibility of a discrepancy between how the participant perceives her or his behavior and how others perceive the participant’s behavior. No person has the ability to objectively judge their own behavior. Consequently, the likelihood of the participants reporting their perception of their psychological sex rather than their actual behavior is eminent. Attitudes, feelings, and beliefs impede true objectivity. Conversely, self-report is advantageous with regard to the relatively small amount of time needed to
administer the instrument and to the assurance of anonymity and confidentiality.

Psychological Sex as a Theoretical Construct. Perhaps we have moved beyond using outdated, traditional sex-roles to categorize, describe, and/or predict behavior. Fourteen years ago, Donnell and Hall (1980) asserted that "the way management is practiced is not related to the sex of the manager---the issue is generic rather than gender-bound" (p. 76). Yet social science research, including the present study, continues to use instruments such as the Bem Sex-Role Inventory that measure constructs based on antiquated traditional, stereotypical sex roles. Social and psychological differences between the sexes are fading, but presently we still depend on instruments based on those very differences to produce valid and reliable research.

If social and psychological differences between the sexes are fading, then when we measure the constructs of femininity, masculinity, and androgyny what is it that we are actually measuring? As researchers approach the year 2000, perhaps we need to abandon outmoded terminology rooted in stereotypical sex-roles and realize what constructs we are actually attempting to measure. Camden and Witt (1983) noted that "socialization processes may be so varied that gender uniformity for social roles is no longer present" (p. 265). If distinction in social roles is diminishing for the sexes, then why the continued usage of
"sexual" terminology such as feminine, masculine, and androgynous?

Research has demonstrated that psychological femininity and masculinity are related to the consideration and structuring dimensions of leadership, respectively (Cann & Siegfried, 1990; Serafini & Pearson, 1984). In addition, when one measures "femininity" the focus is not actually on how feminine the person is, but on interpersonal affiliation. When a researcher measures "masculinity," the researcher is not concerned with how masculine the subject is, but on task-relatedness instead. Also, when studies such as this one examine "androgyny," the interest is actually in how adaptable or versatile the participants are. If this is the case, then why not measure the constructs of adaptability and/or versatility? As Baril, Elbert, Mahar-Potter, and Reavy (1989) argued, using the terms femininity and masculinity is "inappropriate for both the measurement and conceptualization typically associated with them" and referring to "instrumental behavior as 'masculine' and to an interpersonal orientation as 'feminine' demeans both women and men and supports cultural stereotypes that contribute to discrimination" (p.246). Although the methodology used in this study is still sound, perhaps it is time to graduate from the nomenclature of sex-role inventories to inventories utilizing more contemporary terms such as interpersonal affiliation and instrumental
affiliation. Perhaps existing sex-role inventories can be revised to reflect the changed times and use alternative, updated terminology.

**Implications for Future Research**

In addition to the limitations of the present study, the need for future research is also acknowledged. Considering the aforementioned limitations, the most salient suggestion for future research is to migrate away from studies identifying differences in people as psychological sex differences. While the differences may indeed exist, continuing to regard "psychological sex-roles" as noteworthy in the study of human behavior may perpetuate traditional sex-role stereotypes and hinder the actualization of authentic equality among the sexes. Therefore, new terms need to be assigned to labels such as "feminine," "masculine," and "androgynous" to navigate away from traditional sex stereotypes.

Another notable suggestion for future research deals with the use of other-report instruments rather than self-report instruments. The limitations of self-report instruments were discussed earlier and include: the potential for subjects to record socially desirable responses, the possibility of a discrepancy between how the participant perceives her or his behavior and how others perceive the participant’s behavior, and the discrepancy between subjective perceptions and actual behavior.
What a person reports their behavior to be and what that behavior actually is are often two very different conditions. Of particular interest may be the comparison of how people see their own behavior compared to how others perceive their behavior. Some instruments such as the Merrill and Reid (1981) Social Style Profile utilize up to five other-reports to describe a person's behavior. Sharp distinctions often exist between self- and other-report results.

In addition, it would be beneficial to study more than one organization. While the findings of the current study support a strong relationship between androgyny and managerial effectiveness, the same study using effective managers from several successful TQM organizations throughout the country would have more external validity. It would be interesting to survey effective managers from every organization that had won either the Deming Award or the Baldrige Award for quality, and then compare the self-report of the managers to the other-reports of their subordinates.

Another suggestion would be to investigate the relationship between education level and androgyny scores. It is likely that the more educated one becomes, the more likely one is to score androgynously on the Bem Sex-Role Inventory. Explanations may include possibilities such as being more familiar with socially desirable responses, being
exposed to the actual Bem Sex-Role Inventory (or a similar instrument), or that the college environment encourages androgynous behaviors.

**Management Model of the Future**

The results of this study suggest that traditional sex-role stereotypes do not necessarily apply to effective managers. The present study supports the theory posed by researchers that effective managers are those who transcend stereotypical, restrictive modes of behavior and who behave situationally and adaptably (Berryman-Fink & Fink, 1985; Cann & Siegfried, 1990; Coffman, 1985; Korabik, 1981, 1982a, 1982b, 1990; Rosener, 1990, 1993). As Garen (1982) stated, the management model of the future "must fully use the skills and abilities of both men and women in corporations" (p. 49). In addition, the management model of the future must practice versatility and appropriately exercise both task-oriented and interpersonal-oriented behaviors. To do less would be not realizing full management potential.

**Summary**

The purpose of this study was to investigate the relationship between psychological sex and managerial effectiveness. Chapter One stated the problem, defined the terms, and explained the significance of the study. Chapter Two reviewed the relevant literature concerning organizational communication, management style, and the measurement of psychological sex and effective management.
Chapter Three examined the method by which the study was conducted. The results of the study were presented in Chapter Four. Finally, Chapter Five discussed the results of the study, including the limitations of the study and the implications for future research.
APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE
Sex:

   Female ____  Male ____

Age:

   Under 30 ____  30-40 ____  41-50 ____  51-60 ____
   61-70 ____  Over 70 ____

Race:  Caucasian__  Asian American__  African American__
       Native American__  Hispanic__  Mexican American__
       Other (please specify)__ ________________________

Years and months in present organization: ________________

Official position in organization: ________________________

Years and months in present position: ______________________

Highest degree earned:

   High School ___  2-year college ___
   Bachelor of Science/Arts ___
   Master of Science/Arts ___
   Ph.D. ___
APPENDIX B

MODIFIED BEM SEX-ROLE INVENTORY
I, __________________________ agree to participate in a study of successful AT&T supervisors. The purpose of the study is to examine characteristics of supervisors who have been recognized for excellence in Total Quality Management.

As a participant, I understand that my responses will be kept completely confidential, both from AT&T and the researcher. With this understood, I agree that any information obtained from this research may be used in any way thought best for education and publication.

I understand that there is no personal risk or discomfort directly involved with this research and that I am free to withdraw my consent and discontinue participation in this study at any time. A decision to withdraw will in no way have a negative effect on me.

If I have any questions or problems that arise in connection with my participation in this study, I should contact Dr. Jill Rhea, the project director, at (817)565-2586.

__________________________  __________________________
(Date)  (Signature of Participant)

__________________________  __________________________
(Date)  (Signature of Investigator)

THIS PROJECT HAS BEEN REVIEWED BY THE UNIVERSITY OF NORTH TEXAS COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS (Phone: 817-565-3940).
The purpose of this survey is to investigate how you would describe yourself as a supervisor/manager. Below you will find a list of twenty adjectives. Please react to each adjective using the following scale. The left end of the scale (1) represents an adjective that is never or almost never true of your behavior with your subordinates. The scale progresses to adjectives that you feel are always or almost always true of your behavior with subordinates (7).

Please answer the survey as honestly and carefully as possible. Remember, no one else will see your survey: answers are entirely confidential.

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___GENTLE___

___ACTS AS A LEADER___

___TENDER___

___UNDERSTANDING___

___HAS LEADERSHIP ABILITIES___

___WARM___

___DOMINANT___

___AGGRESSIVE___

___SENSITIVE TO NEEDS OF OTHERS___

___WILLING TO TAKE A STAND___

___COMPASSIONATE___

___SINCERE___

___FORCEFUL___

___ASSERTIVE___

___HELPFUL___

___EAGER TO SOOTHE HURT FEELINGS___

___STRONG PERSONALITY___

___COMPETITIVE___

___INDEPENDENT___

___FRIENDLY___
REFERENCES


Powell, G. N., & Butterfield, D. A. (1984). If "good managers" are masculine, what are "bad managers"? *Sex Roles, 10*(7/8), 477-484.


Rosener, J. B. (1993, February). Maximizing the value of diversity. In J. Monday (Chair), The personal is political: Leadership, challenge, and change. Symposium conducted at the annual meeting of Southern Methodist University's Women's Symposium, Dallas, TX.


