Relationships between Leader Characteristics, Planned Change and Organizational Culture in a Dynamic Manufacturing Environment

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RELATIONSHIPS BETWEEN LEADER CHARACTERISTICS, PLANNED CHANGE AND ORGANIZATIONAL CULTURE IN A DYNAMIC MANUFACTURING ENVIRONMENT

by

Matthew Chodkowski

A Dissertation Submitted to the Faculty of The Graduate College in partial fulfillment of the requirements for the Degree of Doctor of Education Department of Educational Leadership

Western Michigan University
Kalamazoo, Michigan
April 1999
RELATIONSHIPS BETWEEN LEADER CHARACTERISTICS, PLANNED CHANGE AND ORGANIZATIONAL CULTURE IN A DYNAMIC MANUFACTURING ENVIRONMENT

Matthew Chodkowski, Ed.D.
Western Michigan University, 1999

The new economic era has been marked by profound global change. In response, researchers and practitioners have called for a rethinking of the conventional concepts of leadership, change, and organizational culture to improve our competitiveness in this turbulent world market. This study investigated the relationships between leader style, leader behavior, leadership paradigm, leader knowledge of change, organizational culture potency, and planned change efficacy in a manufacturing company implementing a high performance work system change initiative. This study intended to contribute to the reconceptualization of the leadership construct and the explication of the leadership-culture-change linkage.

Six hundred and eighty-nine subjects representing 10 manufacturing sites participated in this exploratory study. Survey data regarding leader characteristics and follower perceptions were gathered from 74 supervisors and 615 employees. Data were analyzed using chi-square, Pearson product-moment correlation, ANOVA, and ANCOVA statistical procedures. Results confirmed all but one of the seven hypotheses posited by the researcher.
As proposed, the study found that leader style was not related to reported leader behavior or leadership paradigm, leadership paradigm influenced leader behavior, and a relationship existed between planned change efficacy and leader's knowledge of contemporary change. Findings also indicated that leader style demonstrated neither main nor interaction effects with leader behavior or leadership paradigm on levels of organizational culture potency and planned change efficacy, while leader behavior and leadership paradigm demonstrated significant main effects on levels of both variables. Finally, no difference was found between organizational culture potency scores for leadership paradigm groups when controlling for effects of planned change efficacy. However, differences were found between adjusted organizational culture potency scores for leader behavior groups, a finding that did not support the posited hypothesis.

Conclusions assert that leader-centric leadership perspectives are increasingly irrelevant in dynamic high performance work systems, contemporary leader behavior and a postindustrial leadership paradigm are critical to effective organizational change, knowledge of contemporary change principles is an essential leader competency, and organizational culture change may be the result of collaborative planned change.
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DEDICATION

This dissertation is dedicated to my sons, Eric, Elliot, and Eldon—inspiring examples of the new generation of leaders.
ACKNOWLEDGMENTS

No dissertation is written by the author alone. This dissertation was inspired by sage thoughts and words that have come before. It is with this understanding and sense of humility that I acknowledge the wisdom and inspiration of Abraham H. Maslow, James McGregor Burns, W. Edwards Deming; and Joseph C. Rost.

I am indebted to the members of the dissertation committee for their selfless contribution of their time and talent. I am grateful to Dr. Jianping Shen and Dr. Richard Munsterman for their professional support, advice, and friendship. I want to especially thank Dr. Zoe Barley, dissertation chair, for her patience, guidance, and counsel in this academic endeavor.

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Matthew Chodkowski
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CHAPTER I

INTRODUCTION

Introduction to the Problem

The traditional industrial leadership construct must be reconceptualized in order to meet the challenges and changes of our postindustrial economic era. Recent leadership theories (Bennis & Nanus, 1985; Bryman, 1993; Kouzes & Posner, 1987; Lord & Maher, 1991), including definitions and models proposed in books and journal articles (Covey, 1991; Fiedler & Garcia, 1987; Forbes, 1991; Hersey & Blanchard, 1988; Oakley & Krug, 1991; Osborne, 1992; Peters & Waterman, 1982; Zaleznik, 1989), are fundamentally variations of the industrial leadership paradigm theme and have only served to guarantee the continued proliferation of the traditional leader personality “characteristics” and “trait” approaches (Barker, 1994, 1996; Foster, 1986; Gemmill & Oakley, 1992; Rost, 1991, 1993). Furthermore, these traditional models and definitions have reinforced and legitimized the leader-centric perspective which may very well be the root cause of our modern leadership dilemma as described by Bennis (1989), Gilmore (1989), and Vaill (1989). All three authors have warned of a leadership crisis and assert that the traditional leadership paradigm has lost its
relevance in this modern era of rapid and profound turbulence in the social, economic, and technological environments.

Professionals and practitioners have long known that the industrial leadership paradigm in organizations must be supplanted (Bass, 1985; Bennis, 1969; Burns, 1978; Blake & Mouton, 1964; Covey, 1991; Deming, 1986; Foster, 1986; Heifetz, 1994; Maslow, 1965; McGregor, 1960; Peters & Waterman, 1982; Rost, 1991; Wheatley, 1992). It is also believed that the traditional industrial "bureaucratic" management approach based on the mechanistic model of organizational effectiveness (Burns & Stalker, 1961) with its reliance on authority and control, is no longer able to deliver competitive advantages in today's modern global marketplace (Bennis, 1993; Deming, 1986, 1993; Drucker, 1995; Kanter, 1983; Reich, 1983). The emergent interest in the contemporary postindustrial "democratic" management approaches predicated upon the organic model of organizations (Burns & Stalker, 1961), with its focus on autonomy and commitment, underscores the concern that the leader-centric view of leadership is inadequate and probably obsolete (Bolman & Deal, 1991; Denison, 1990; Ekvall, 1991; Hackman & Oldham, 1980; Lawler, 1986, 1992; Lawler, Mohrman, & Ledford, 1995; Schein, 1992; Vaill, 1982).

Two decades ago, Hollander (1978), providing an alternative dynamic view of leadership, stated, "It seems clear that a source of confusion in the study of leadership has been the failure to distinguish it as a process from the leader who is the occupier of a position which is central to it" (p. 151). More recently, many contributors to the leadership
literature report convincingly that the complexity of the leadership process cannot be understood without considering the dynamics of leader-follower interaction and organizational adaptation (Heifetz, 1994; Rost, 1991; Schein, 1992). Writers speak of a “new age” leadership paradigm in which they describe leadership in terms of: “self-leadership”—leading others to lead themselves (Manz & Sims, 1989); “organizational quality”—a systemic network of roles (Ogawa & Bossert, 1995); “organizational transformation”—the creation of vision and purpose and the enrollment of people in that vision (Boucher, 1985); and “organizational revitalization”—defining the need for change and mobilizing commitment (Tichy & Devanna, 1986). Other authors define leadership as: the realization of organizational transformation and purposeful alignment (Adams, 1984); the creation and destruction of organizational culture (Schein, 1992); the matching of culture with strategy to create excellence (Hickman & Silva, 1984); and the mutual influence relationship in which leaders and followers collaborate to realize intended and purposeful change (Rost, 1991). These contemporary leadership reconceptualizations undoubtedly reflect the postindustrial emphasis on leader-follower collaboration in planned organizational change and organizational culture renewal. They challenge researchers as well as practitioners to reconceptualize their leadership paradigms by rethinking fundamental concepts based on the traditional industrial assumptions regarding leaders, followers, and change.
Planned organizational change is an intervention that involves anticipation of environmental changes and has been defined as “change directed at bringing about organizational transformation for the purpose of increasing the organization’s effectiveness” (Cummings, 1993, p. 52). Organizations utilize planned change interventions to solve problems, learn from experience, adapt to changing environments, transform organizational culture, and influence or generate future change (Burke & Litwin, 1992; Kotter, 1996; Lewin, 1951; Lippit, Watson, & Westley, 1958; Schein, 1992; Tichy, 1974). Historically, organizational change has consistently been related to both the traditional and the contemporary paradigms of leadership (Bennis, 1989; Bennis, Benne, & Chin, 1961; Burke & Litwin, 1992; Covey, 1991; Fayol, 1916/1949; Kanter, 1983; Lawler, 1986; Lewin, 1951; Likert, 1967; Machiavelli, 1513/1962; Mayo, 1933; Senge, 1990; Taylor, 1911; Vroom & Yetton, 1973; Weber, 1924/1947).

More recently, however, planned change has also been linked to organizational culture in an effort to explain false starts in implementing change initiatives and failures in realizing and sustaining intended organizational change objectives (Bennis & Nanus, 1985; Kotter, 1996; Peters & Waterman, 1982; Quinn, 1996; Schein, 1992). Planned change interventions all too often focus on surface-level alterations, leaving deeper organizational values, beliefs, and assumptions unexplored (Argyris & Schon, 1978). Linking planned change and renewal interventions with the underlying values, beliefs,
and assumptions of an organizational culture is an important but often neglected step in the planned change process (Denison, 1990).

Organizational culture is described as the pattern of basic assumptions, values, beliefs, norms, and artifacts shared by members of an organization which help members to make sense and meaning out of their organization (Schein, 1992). Organizational culture is the result of social learning and reflects what has occurred in the past. It consists of the generally unexamined assumptions, values, and norms that guide employee behavior and exert a powerful impact on organizational effectiveness. Current interest in organizational culture derives from its relationship to organizational change (Burke & Litwin, 1992; Kotter, 1996; Schein, 1992) and presumed impact on performance (Barney, 1986; Peters & Waterman, 1982). There is considerable speculation and increasing research suggesting that organizational culture can improve an organization's ability to implement new strategies, attain higher levels of performance, and contribute to the adaptation process (Deal & Kennedy, 1982; Denison, 1990; Denison & Mishra, 1995; Kotter, 1996; Sashkin, 1986; Schein, 1992; Tunstall, 1983; Wiener, 1988; Wilkins & Ouchi, 1983; Wilms, Hardcastle & Deone, 1994). Although there is only limited consensus for a general theory of organizational culture, there is healthy agreement that culture should be studied as an integral part of the change processes in organizations (Denison & Mishra, 1995).

Smircich (1983) emphasizes that culture is "something an organization is" (p. 347) and essentially consists of the patterns of symbols, meanings, and norms that are created through consensus in
social interaction. This social-constructionist perspective implies that leader and follower relations cannot be conceptualized apart from their cultures (Hatch, 1993). Consequently, there exists a rather strong level of agreement by various researchers that organizational change implies culture change (Allen & Kraft, 1987; Kotter, 1996; Lundberg, 1985; Quinn, 1996; Schein, 1992; Siehl, 1985). Concurrently, there also exists general recognition that leadership and organizational culture are conceptually intertwined (Burke, 1986; Burke & Litwin, 1992; Sashkin, 1988; Tichy & Devanna, 1986). The essential linkage between leadership, change and culture has been clearly and eloquently stated by Schein (1992), who proposes that “planned change cannot be understood without considering culture” (p. xiv); and, “leadership and culture are two sides of the same coin” (p. 1).

It has been suggested that the Achilles heel of the industrial leadership paradigm is “leader style.” Style relates to the attitudes, motivations, and personality of the leader (Fiedler, 1967). Hartley and Hartley (1952) concluded that style alone does not seem to be responsible for leadership success. The relentless focus by academicians and practitioners on this leader personality variable may be the single greatest impediment to the postindustrial reconceptualization imperative espoused by various authors (Blake & Mouton, 1982; Heifetz, 1994; Hogan, Curphy, & Hogan, 1994; Krantz, 1990; Rost, 1991; Vanderslice, 1988; Vroom & Jago, 1995). Over the years, hundreds of studies have been conducted on the effects of leader styles with the results for most criteria being inconsistent and inconclusive (Bass, 1990; Kerr &
Dominated by the personality perspective, most leadership research has focused on the dyadic process while ignoring leader behavior related to subordinate commitment to values, subordinate empowerment, and organizational adaptation (Hunt, 1991). In *Leadership for the Twenty-first Century*, Rost (1991) denounced the personality impediment pointing out that the intense research focus on leader style has resulted in the neglect of follower roles, leader-follower collaboration, and purposeful organizational change.

It is proposed that leader behavior (rather than personal style), based on leader role expectations required by a specific organizational cultural imperative, is a critical element in contemporary organizations (Bass, 1990; Bass & Avolio, 1994; Gibbons, 1992; Riechmann, 1992; Stewart & Manz, 1995). It is also proposed that while organizational culture is an evolutionary sociopsychological phenomenon unlikely to be altered by direct superficial means (Schein, 1992), cultural change occurs indirectly as a result of contemporary postindustrial leadership engaged in the collaborative process of noncoercive, mutually beneficial adaptive change (Bolman & Deal, 1991; Burke & Litwin, 1992; Kotter, 1996; Morgan, 1986; O'Toole, 1985; Porter & Parker, 1992; Schein, 1992; Trice & Beyer, 1991). Therefore, it is speculated that the process of planned change interacts with leader behavior and organizational culture to facilitate and reinforce mutually intended and purposeful organizational change.

Although leadership has been linked to organizational culture, the linkage has been underinvestigated and remains unclear (Bate, 1994;
Den Hartog, Van Muijen, & Koopman, 1996; Reichers & Schneider, 1990; Schein, 1996; Sergiovanni, 1984). What is clear when considering the turbulent environment most organizations find themselves in today is the unquestionable need for reconceptualizing contemporary leadership and expanding the leadership-culture-change construct (Bennis & Nanus, 1985; Burke & Litwin, 1992; Kotter, 1996; Rost, 1991; Schein, 1992).

The introduction to this study indicates that from a systems perspective, leadership, organizational culture, and planned change have been recognized as critical constructs in the process of organizational transformation. As cited, this implicit conceptual relationship has been recognized by various authors and researchers. Despite this general recognition of the conceptual linkage, insufficient theoretical and empirical attention has been devoted to the dynamic relationships between the constructs (Den Hartog et al., 1996; Lawson & Ventriss, 1992; Schein, 1996; Trice & Beyer, 1991; Wiener, 1988).

Statement of the Problem

The turbulent environment of the postindustrial economic era is a potential threat to the very survival of companies in virtually all business sectors. Under such conditions of uncertainty, a company's longevity, strategy, and structure can no longer guarantee success or security. Stability, monopoly, and dependency, once familiar conditions of comfort, do not exist in this new economic age. Organizations can no longer take refuge in a stable economy, a competition-free market, or a
blind dependency upon its leaders. The problems facing our contemporary organizations were in part created by our organizations and will be impossible to solve by our organizations without a fundamental paradigmatic shift in thinking (Bolman & Deal, 1991; Deming, 1986; Ouchi, 1981; Reich, 1983; Senge, 1990; Wantuck, 1989).

The challenge facing organizations brought about by the postindustrial era which includes fierce global competition, a quest for quality revolution, and an accelerated socio-technical workplace evolution is a transformational imperative to adapt and to improve. To meet this challenge, organizations have adopted various programs to change the way they do business and improve performance. Some approaches have included quality circles, job enrichment, work redesign, total quality management, socio-technical systems, and employee involvement techniques such as self-directed and high performance teams (Lawler, Mohrman, & Ledford, 1995). Although there have been success stories documented, there have also been high failure rates reported (Belohlav, 1993; Hinton & Schaeffer, 1994; Mallinger, 1993). Failures are often attributed to the persistent reliance on the industrial leadership paradigm (Beer et al. 1990; Covin & Kilmann, 1990), and traditional change strategies that ignore contemporary principles (Burke, 1994) and underestimate the importance of organizational culture (Kotter, 1995, 1996; Kotter & Heskett, 1992; Rost, 1991; Schein, 1992; Stewart & Manz, 1995).

The problem addressed by this research is to better understand the relationships between contemporary leadership, organizational
culture, and planned change in a dynamic manufacturing organization, and the effects of leader characteristics on follower perceptions regarding the "potency" or strength of organizational culture and the "efficacy" or effectiveness of a planned change initiative. It is proposed that by advancing a concept of contemporary leadership, and investigating the relationship between planned change and organizational culture renewal, this study will contribute to the reconceptualization of the leadership construct and the explication of the leadership-culture-change linkage.

Purpose and Significance of the Study

This cross-sectional exploratory study of a manufacturing organization currently engaged in the process of implementing a planned change initiative based on the Six Phase Change Model (Belgard, Fisher, & Rayner, 1991) will measure leader characteristics and describe their relationship to follower perceptions of organizational culture potency and planned change efficacy. By researching leadership in an organization having a fertile environment of planned change, the study seeks to explicate the dynamic relationships between these variables in light of the postindustrial leadership paradigm which recognizes adaptive organizational transformation and leader-follower collaboration as necessary and essential elements (Burns, 1978; Heifetz, 1994; Rost, 1991).

The literature on leadership, organizational change, and organizational culture is beginning to converge (Burke & Litwin, 1992;
Kotter, 1994; Lundberg, 1990; Sashkin & Fulmer, 1985; Schein, 1992; Tichy & Devanna, 1986). However, research studying the relationships between these constructs has been inadequate (Bate, 1994; Den Hartog et al., 1996; Denison, 1990; Schein, 1992). Also, there exists an increasing body of evidence that Total Quality Management (TQM) and High Performance Work System (HPWS) initiatives are being integrated into an effective leadership method for introducing and realizing organizational change and organizational culture renewal (Anderson, Rungtusanatham, & Schroeder, 1994; Barker, 1995; Beer, Eisenstat, & Spector, 1990a; Grant, Shani, & Krishnan, 1994; Lawler, 1994; Sosik & Dionne, 1997).

In this study, leader style is defined in terms of individual leader attitudes and predispositions dichotomized as either “task-oriented” or “people-oriented” (Fiedler, 1967). Leader behavior is defined as expected leader roles that reflect the prevailing management principles, practices, and expectations of the organization categorized as either “traditional” or “contemporary” (Blake & Mouton, 1964; Manz & Sims, 1984, 1987). While individual leader predispositions are more closely related to leader style (Fiedler, 1967), organizational role expectations are related to leader behaviors (Bass, 1990). Leadership paradigm is categorized as either “industrial” or “postindustrial” and will be determined by how the concept of “leadership” is defined and described by the leader (Rost, 1991). Organizational culture potency will be determined by using two survey instruments: one designed to identify and measure follower perceived intensity of shared organizational beliefs (Sashkin, 1991), and
the other to measure follower perceived intensity of “enacted norms.”

Planned change efficacy will be determined by a survey instrument that identifies and measures follower perceptions regarding the effective implementation of a change initiative based on the research organization’s total quality work system planned change model.

Knowledge of managing organizational change will be determined by a survey instrument that measures the leader’s degree of knowledge regarding contemporary organizational change principles and assumptions (Burke & Church, 1992).

This section has provided evidence indicating that in this postindustrial economic era the concepts of leadership, organizational culture, and planned change have out of necessity converged. The paucity of research in this area, and the current academic and scientific concerns regarding organizational leadership in the postindustrial age clearly support the purpose and significance of this study—to reconceptualize the leadership construct and explicate the leadership-culture-change linkage.

Research Questions

Leader Style, Leader Behavior, and Leadership Paradigm

Leader style is related to the individual leader’s orientation and predisposition (Fiedler, 1967), while leader behavior is determined by organizational environment and expectations (Bass, 1990; Schein, 1992). Leader style has been linked to group performance and effectiveness
outcomes in various studies but with mixed results (Bass, 1990). The majority of these studies, however, may have been carried out in traditional low performance systems (Lawler, 1986; Vaill, 1982) and have not considered organizational culture and change as outcomes (Eggleston & Bhagat, 1993). Behaviors related to leader role that reflect and reinforce expected organizational norms and values have been identified as critical to performance (Bass, 1990), change (Schein, 1992), and team-design initiatives (Stewart & Manz, 1995). Researchers now suggest that the leader’s role based on contemporary behaviors is critical in high performance work systems (Lawler, 1986; Manz, Keating, & Donnellon, 1990; Manz & Sims, 1987; Riechmann, 1992; Stewart & Manz, 1995). The actual importance and practical relevance of leader style in a changing organization is therefore questioned. Furthermore, the industrial leadership paradigm described as leader-centric, control-oriented, and based on traditional managerial assumptions has been judged to be inappropriate and ineffective in this postindustrial era marked by constant change (Burke & Litwin, 1992; Rost, 1991; Wheatley, 1992, 1996).

*Research Question 1:* Is there a relationship between leader style and reported follower descriptions of leader behavior?

*Research Question 2:* Is there a relationship between leader style and leader leadership paradigm?

*Research Question 3:* Is leader leadership paradigm related to follower descriptions of leader behavior?
Leader Characteristics, Planned Change, and Organizational Culture

Leader style is not a self-perception of one's own leader behavior. Style relates to the attitudes, motivations, and personality of the leader (Fiedler, 1967). Leader behavior relates to practicing leadership principles and satisfying leader roles prescribed and expected by the organization (Bass, 1990; Bass & Avolio, 1994). Leadership paradigm reflects the core assumptions and beliefs held by a leader which most likely influence the leader's thoughts and actions (Rost, 1991).

Organizational culture, viewed as an emergent process and a social outcome conceptualized as the internalized shared beliefs and institutionalized enacted norms of a group, is considered to be a key variable related to leadership and planned change (Schein, 1992). It is speculated that planned change efficacy may act as a moderating variable between leader characteristics and organizational culture potency. Therefore, since the rate of change in the business world is not expected to decrease, organizations will require leaders who understand the nature of contemporary organizational change (Burke & Church, 1992; Kissler, 1991; Morrison, 1981; Tichy & Sherman, 1993) and leadership processes which include aligning people and anchoring change within the organization culture (Kotter, 1996).

Research Question 4: Is there a relationship between followers' perceived levels of planned change efficacy and the leader's degree of knowledge regarding contemporary change management principles?
Research Question 5: Are there relationships between followers' perceived levels of organizational culture potency and planned change efficacy, and both leader style and leader behavior?

Research Question 6: Are there relationships between followers' perceived levels of organizational culture potency and planned change efficacy, and both leader style and leadership paradigm?

Research Question 7: Given a relationship between followers' perceived levels of planned change efficacy and perceived levels of organizational culture potency, will followers' perceived level of organizational culture potency be related to leader behavior and leader leadership paradigm when the influence of planned change efficacy is removed?

Summary

This study investigates the relationships between leader style, leader behavior, leader leadership paradigm, and follower perceptions of organizational culture potency and planned change efficacy in a manufacturing organization actively engaged in the process of implementing a total quality high performance work system change initiative. The study seeks to identify salient features of contemporary leadership to understand relationships between leader characteristics, follower's perceptions of planned change efficacy, and follower's perceptions of organizational culture potency.

By identifying and understanding the differences between leader style, leader behavior, and leadership paradigm, and by studying their
effects on planned change and organizational culture, successful organizational intervention strategies and leadership development processes can be established and implemented to improve team and organizational performance. Finally, by learning more about the leadership-culture-change linkage, leaders and followers can confidently and successfully apply principles and practices related to high performance total quality work system change initiatives.

Outline of the Study

This dissertation contains five chapters. The introduction, problem statement, purpose and significance of the study, research questions, and summary were presented in Chapter I. The review of the related literature, provided in Chapter II, will focus on selected theories of leadership to trace the evolution of the leadership construct, and the literature related to planned organizational change and organizational culture describing contemporary approaches associated with total quality and high performance team concepts. In addition, Chapter II highlights the dynamic linkages proposed between leadership, change, and culture which supports the purpose of this study. Finally, the chapter will elaborate upon the research questions advanced in Chapter I.

Chapter III will describe the research organization, define the various dimensions of this specific study, and explain the design and methods undertaken to address the conceptual hypotheses. The chapter will begin by describing the organization under investigation and then will present the research sample unit of analysis section, the
instrumentation and measures section, the data gathering procedures section, and finally, the data analysis section.

Detailed in Chapter IV are the descriptions of the research sample and the results of the research study, including a summary of the statistical procedures and findings. Finally, an overview of the study, followed by interpretations and implications, limitations, and recommendations for further research are presented in Chapter V.
CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter will begin with a brief introductory overview, followed by a review of selected theories of leadership which trace the evolution of the leadership paradigm. It will also review literature related to planned organizational change and organizational culture, and elaborate upon the research questions advanced in Chapter I.

Introductory Overview

This section will provide a concise overview of the principal research constructs under investigation, namely, leadership, planned change, and organizational culture, in an effort to comprehensively link the constructs and strategically position this research study within the theoretical and empirical literature.

Contemporary Leadership

In 1978, James MacGregor Burns acknowledged that leadership was one of the most observed and least understood phenomena on earth. Burns pointed out that the fundamental crisis underlying mediocrity in leadership is intellectual, positing that "If we know all too much about our leaders, we know far too little about leadership" (1978, p. 1). In 1985, Warren Bennis and Burt Nanus argued that, in general, most of our
organizations are over-managed and under-led, which in part explains
the pervasive, “I only work here” syndrome (p. 218). In 1986,
W. Edwards Deming preached that the job of management is leadership,
not supervision. According to Deming, in order to become effective
leaders, managers must acquire “profound knowledge” which is
In 1987, Kouzes and Posner expressed their observations that “just about
everything we have been taught about traditional management prevents
us from being effective leaders, and just about every popular notion
about leadership is a myth” (p. xv). They concluded that “our first
leadership challenge is to rid ourselves of these traditions and myths”
(p. v).

In 1990, Peter Senge observed that “at its heart, the traditional
view of leadership is based on assumptions of people’s powerlessness,
their lack of personal vision and inability to master the forces of change,
deficits which can be remedied only by a few great leaders,” and
proposed a new view of leadership, that of building learning
organizations (p. 340). And finally, in the most recent and devastating
critique, Joseph Rost (1991) condemned the efforts of contemporary
leadership scholars and practitioners declaring that the underlying
model of leadership has not been questioned or changed since the
Industrial Revolution. Rost elaborated upon the industrial leadership
paradigm with this definition: “Leadership is great men and women with
certain preferred traits influencing followers to do what the leaders wish
in order to achieve group/organizational goals that reflect excellence
defined as some kind of higher-level effectiveness” (p. 180). Rost further states that "the problem with the industrial leadership paradigm is that it increasingly ill serves the needs of a world rapidly being transformed by a massive paradigm shift in societal values” (p. 181). In this the 21st century, Rost calls for nothing less than a fundamental reconceptualization of leadership. Whereas traditional leadership is based upon the industrial paradigm focused on authority, direction, and control, contemporary leadership is based upon the postindustrial paradigm which relies on autonomy, collaboration, and commitment. The traditional leadership concepts were relevant in an economic era of stability in which managing and maintaining the status quo was important (Barker, 1994; Rost, 1991). The new economic era demands adaptability, collaboration, and innovation—organizational capabilities that require contemporary leadership concepts for developing the capacity to change and ability to anchor change in the organizational culture (Kotter, 1996).

**Planned Change**

One of the most important and pervasive organizational concepts that has emerged in the 20th century is that of planned, controlled, and directed change. It is believed that organizations can consciously and successfully direct forces of change to suit predetermined goals and values (Owens, 1991). The contemporary approaches to organizational change focus efforts at developing strategies and tactics that make it possible to plan, manage, and control the change process (Owens, 1991).
One such approach, a taxonomy suggested by Chin and Benne (1976), is the normative-reeducative strategy of organizational renewal. These normative-reeducative strategies of change "posit that the norms of the organization's interaction-influence system (attitudes, beliefs, and values—in other words, its culture) can be deliberately shifted to more productive norms by collaborative action of the people who populate the organization" (Owens, 1991, p. 221). Likert (1961) first defined the concept of organizational self-renewal and described relationships among management styles, organization influence-interaction systems, and organization effectiveness. Likert's strategy states that organizational change cannot be imposed. It concentrates on creating the organizational capacity for continuous problem solving by sensing emerging problems, establishing goals and objectives, generating innovative alternative solutions and implementing the optimal alternative solution.

Critics have suggested several problems with the way in which organizational change is conceptualized and practiced. Their concerns are not necessarily with the change models themselves, but with how the change models are implemented and with the obsolete traditional assumptions and knowledge of the change agents (Allen & Kraft, 1987; Beer, Eisenstat, & Spector, 1990b; Bolman & Deal, 1991; Burke & Litwin, 1992; Covey, 1991; Kotter, 1995, 1996; Quinn, 1996; Schein, 1993b). Two major concerns emerge in reviewing the criticisms of traditional change approaches: (1) changes are not aligned with the organizational vision, and (2) changes are not aligned with the organizational values. The significance of this finding for this research is
that vision is related to organizational leadership (Bennis & Nanus, 1985), and values are related to organizational culture (Schein, 1992). Change therefore occurs either as a result of a shift in cultural values, or as a result of planned and intended interventions by collaborative leadership (Lineberry & Carleton, 1992). Planned change is now considered to be conceptually linked to culture transformation and collaborative leadership (Heifetz, 1994; Kotter, 1996; Rost, 1991; Schein, 1992).

Regarding organizational change and development, the literature points to the application of Total Quality Management (TQM) and High Performance Work Systems (HPWS) as two of the more popular interventions of modern organizations, (Beer et al., 1990a; Delavigne, 1994; Deming, 1982; Dyer & Dyer, 1986; Fisher, 1993; Kanter, 1981; Lawler, 1988; Lawler et al., 1995; Peters & Waterman, 1982; Sashkin, 1984; Vaill, 1982; Walton, 1985). The theoretical underpinnings for these concepts are found in a number of disciplined areas of inquiry including open systems theory (von Bertalanffy, 1956); social psychology (Mayo, 1933); socio-technical systems theory (Trist & Bamforth, 1951); organizational climate (Litwin & Stringer, 1968); organizational culture (Schein, 1992); statistical theory (Shewhart, 1931); motivation (Maslow, 1954); employee participation (Likert, 1967); and organizational change (Lewin, 1951). Both theoretical and empirical research has been conducted in each of these specific areas of study as well as in the area of contemporary leadership study where recently the leadership construct has been redefined to include: transactional and transformational
dimensions (Bass 1985; Bass & Avolio, 1994; Burns, 1978); leader-follower collaboration (Sayles, 1993; Vaill, 1982); vision and purpose (Bennis & Nanus 1985); adaptive change (Burke & Litwin, 1992; Senge, 1990); organizational quality (Ogawa & Bossert, 1995); community development process (Barker, 1994); influence relationships among leaders and followers intending real change (Rost, 1991); and organizational culture creation and transformation (Bolman & Deal, 1991; Schein, 1992).

It has been pointed out that environmental forces such as the global quality revolution and socio-technical workplace evolution are pressuring organizations to formulate new strategic initiatives to achieve competitive advantages through organizational effectiveness. This is primarily being accomplished with renewal strategies that emphasize improved integration of human and technical systems based on participation and team designs. Significant developments have occurred concerning the participation and empowerment of workers in the leadership and decision making processes of organizations (Burke, 1986; Kanter, 1981). These developments have been inspired by the greater attention to groups and team efforts in the workplace attributable in part to Japanese management practices (Ouchi, 1981) which had their foundations in the human relations (Likert, 1961; McGregor, 1960), and quality control (Deming, 1986; Ishikawa, 1985; Juran, 1974) movements. Accordingly, there now exists a broad context of thinking that supports the value of employee participation, empowerment, and team-based organizational designs. Leadership and followership are now considered...
active and interdependent organizational roles given that
(a) hierarchical organizations require both roles at every level
(Hollander, 1985); (b) these roles are not personality types and are no
longer as clearly demarcated as they used to be (Kelly, 1992); and
(c) organizational change strategies based upon total quality and high
performance approaches are dependent on the postindustrial leadership
paradigm which advocates leader-follower collaboration (Delavigne,
1994; Deming, 1986; Fisher, 1993; Heifetz, 1994; Lawler et al., 1995;
Rost, 1991).

Organizational Culture

To this point, the focus has been primarily on contemporary
leadership and organizational transformation through planned change
initiatives related to total quality management and high involvement
strategies. The construct of organizational culture will now be addressed.
It is the relationship and the proposed linkage between leadership,
planned change, and organizational culture that are fundamental to this
investigation.

Organizational culture is a rather recently defined dimension of
social systems. The concept of culture, originally identified by
anthropologists, was found to be useful in studying and describing
organizations (Geertz, 1973; Herskowitz, 1948; Pettigrew, 1978).
Organizational culture has been described using definitions that range
from the mundane, “the way we do things around here” (Bower, 1966;
Burke & Litwin, 1992, p. 533), to the mystical, “the sociological
imprinting for reinforcement of the social order" (Kroeber & Kluckhohn, 1952). Schein (1992) defines organizational culture as the basic assumptions and beliefs shared by a group. Organizational culture is regarded as an outcome, an emergent property of group interactions. Like organizational climate, organizational culture addresses the same phenomenon: the creation, influence, and change of social contexts in organizations (Denison, 1996). Although similar constructs, the main difference between climate and culture lies in their respective theoretical roots.

Climate research grew out of Lewinian field theory (Lewin, 1951), while organizational culture research grew out of the anthropological social-construction framework (Mead, 1934). Therefore, culture researchers seek to gain a deep understanding of individual meaning and underlying assumptions (Schein, 1992), whereas climate researchers typically place greater emphasis on organizational member perceptions of observable practices and procedures (Guion, 1973). From a systems perspective, the concepts of climate and culture have been linked to leadership since the leader's assumptions and their consequent processes are primary determinants of both the organization's climate (Likert, 1967; Litwin & Stringer, 1968; McGregor, 1960) and the organization's culture (Bennis & Nanus, 1985; Schein, 1992). The fact that leaders have the potential and the responsibility to reinforce and reshape aspects of culture has been asserted by a number of researchers (Bennis & Nanus, 1985; Kotter & Heskett, 1992; Schein, 1992; Trice & Beyer, 1991).
The literature regarding organizational culture change and the research investigating the leadership dynamics of organizational culture change are for the most part conceptual and descriptive (Den Hartog et al., 1996; Schein, 1992; Trice & Beyer, 1991; Zamanou & Glaser, 1994). Furthermore, certain contradictions and disagreements persist, and questions abound regarding the culture phenomenon itself such as:

a) Do organizations have cultures, or are they cultures? (Smircich, 1983);
b) Do cultures affect leaders, or do leaders affect cultures? (Schein, 1992);
and c) If cultures consist of underlying assumptions that are unconscious, can culture be changed directly and consciously? (Denison, 1990; Hatch, 1993; O'Reilly, Chatman, & Caldwell, 1991; Wilkins & Ouchi, 1983). Schein (1992) suggests that culture is synonymous with organization and that culture can facilitate or restrict organizational adaptation with the external environment, as well as integration of internal processes. Schein also posits that since organizations have deeply entrenched cultural assumptions that are quite pervasive and resistant to change, it is critical to learn more about transforming organizational culture, especially in this new economic era in which turbulent change has become a reality for most organizations.

Finally, if culture creation, maintenance, and change is the responsibility of leadership (Morgan, 1986; Schein, 1992; Tichy & Devanna, 1986), we can best understand the relationship between contemporary leadership and organizational culture by investigating organizations that are actively involved in a planned change initiative implemented to achieve intended real change (Rost, 1991). In other
words, it is suggested that organizational change is essentially organizational culture change (Burke & Litwin, 1992; Kanter, 1983; Kotter, 1996; Kouzes & Posner, 1987; Peters & Waterman, 1982; Sashkin & Fulmer, 1985; Schein, 1992; Weick, 1985). Organizational culture is increasingly recognized as the key factor which either enhances or retards change initiatives. To understand organizational development and planned change, organizational culture must be also considered and understood (Schein, 1992).

Linking organizational culture to planned change, Schein (1992) points out that change processes must not only take cultural assumptions into consideration, but that change processes can directly reveal critical cultural elements. Schein emphasizes that organizational culture is the result of a complex group learning process that is only partially influenced by the leader. He also suggests that group growth and culture are inextricably intertwined and both are the result of collaborative leadership and shared experiences. Schein also intimates the concept of “culture change leadership” (p. 389) and describes this dynamic as the ability to create involvement and participation “to emotionally involve the group in achieving its own insights into its cultural dilemmas, and to be genuinely participative in his or her approach to learning and change” (p.380). Numerous companies have devised new strategies and change initiatives which could not be successfully implemented because the espoused values, beliefs, and assumptions differed from the organization’s existing culture (Schein,
Cultural leadership is then required to expose and express values consonant with the direction of the desired change (Trice & Beyer, 1991).

This introductory overview has provided evidence indicating that in this new postindustrial era the concepts of leadership, organizational culture, and change have out of necessity converged and that the need to study and explicate the leadership-culture-change linkage is critical. The next section will review selected leadership theories to trace the evolution of the leadership paradigm.

The Leadership Construct

For over a century, Social Darwinism, a term attributed to Herbert Spencer (1820–1903), has dominated the discipline of social science. Social Darwinism is an adaptation of Darwin's concept of “survival of the fittest” to human societies and organizations, and accounts for the many metaphorical perspectives of “hero” with which leaders often identify themselves (Delavigne, 1994). Darwinian beliefs meshed with the Calvinist doctrine of “predestination” (the notion of being chosen by God to be successful) and also with the American Frontier value of “rugged individualism” to form ubiquitous fundamental assumptions which inevitably influenced the study of leadership (Bass, 1990). The “Great Man” theory of leadership, which defined leadership solely from the view of leader traits, sprang from these Darwinian beliefs and the issue of leadership at the turn of the 19th century was for all intents and purposes settled on these “scientific” grounds (Carlyle, 1841/1907; Dowd, 1936; Galton, 1869).
When the "Great Man" theory failed to satisfactorily explain leadership, the focus shifted to the "Great Event" theory which explained the concept of leadership by merging the "leader trait" and "significant event" variables (Case, 1933). Nearly half a century later, no satisfactory theories of leadership existed. Disenchanted with the so-called quasi-theories, a paradigmatic shift was set in motion by researchers who began to study leader behavior in both laboratory and field settings. This approach focused on the behaviors leaders engaged in, instead of what traits they possessed and began with a seminal study by Lewin & Lippitt (1938) in which the effects of work-related and person-related leader behaviors were investigated. The behavioral school of leadership was dominated by three instrumental academic groups all intent on explaining effective leadership in terms of leader behaviors: Harvard University (Bales, 1954), the Ohio State Leadership Center (Stogdill & Coons, 1957; Stogdill & Shartle, 1955), and the University of Michigan (Kahn & Katz, 1953; Likert, 1961). The behavioral perspective which included Stogdill and Shartle's (1955) proposition that leadership should be regarded as a relationship between people rather than as a characteristic of the leader, strongly influenced leadership theory and research which followed.

More recently, three critically important leadership approaches were developed: the Contingency (Fiedler, 1967), Transactional (Hollander & Julian, 1969), and the Transformational (House, 1977) models. These theories added immeasurably to the understanding of the complexities of leadership and were a sharp departure from the
traditional dyadic of leader traits and environmental factors as prime
determinants of who became a leader, and who performed effectively as a
leader. In 1978, James Burns published his seminal theoretical
contribution *Leadership* and consequently redirected the scholarship,
research, and practice of leadership. Bernard Bass (1993) observed that
Burns initiated the second paradigmatic shift in the study of leadership
by conceiving contemporary leadership in terms of both transactional
and transformational dimensions.

Today it is generally recognized that leadership is not a person,
but a process—a relationship of influence, collaboration, and change
between leaders and followers (Bennis, 1989; Burns, 1978; Hollander,
1978; Rost, 1991; Schein, 1992). Greater attention is being given to
leader-follower relations and the role of the follower exemplified by
follower aspirations, expectations, motivations, and attributions. Both
leadership and followership are recognized as active roles (Hollander,
1985). Leadership clearly depends on responsive followers and is
therefore a system of interrelationships affected by constraints and
opportunities including not only the demands of the task and the
situation, but also the commitment and motivation of the leaders and
followers (Burns, 1978).

The study and application of contemporary leadership most
certainly depends on how the leader-follower phenomenon is
conceptualized. Traditionally, certain variables such as group
productivity and follower satisfaction have been overemphasized, while
follower perceptions regarding organizational change and culture have
been underemphasized (Bass, 1990). Contemporary paradigms and new shifts in thinking brought about by societal, technological, and organizational changes are broadening the conceptual and methodological issues of leadership theory and research in the 21st century (Bass, 1990). Predictions about leadership in the 21st century made 40 years ago erred in that developments came sooner than predicted (Bass, 1967; Bass & Ryterband, 1974). Recent proposals based on paradigmatic shifts that occurred in the 1980s and 1990s are likely to be equally conservative (Bass, 1990). The cultural, social, and economic changes that have taken place in the last half of this century will require a reexamination of leadership instruments, structures, and relationships (Tucker, 1983).

Bass (1990) points out that, to a certain degree, all research on leadership styles prior to the introduction of transactional and transforming leadership by Burns (1978) concentrated on democratic, autocratic, and laissez-faire leadership, “which basically takes us back to where it all began in 1938 with Lewin and Lippitt’s seminal experiment” (p. 900). Bass goes on to suggest that leaders take on a more autocratic or democratic style when it is comfortable for them to do so because of their individual personalities, but that leadership roles which specify the purposes to be served by leader behavior are based upon organizational and role expectations, independent of personality. Leadership role relates to the larger systems approach as described by Katz and Kahn (1978). This approach considers the leader embedded in a system with multiple inputs from within the organization as well as the environment.
According to this perspective, the system that includes organizational goals and norms influences the leaders, the followers, and the resulting performance outcomes. According to Deming (1986), the role of a leader is to understand the system he or she is involved in and know whether it is stable and predictable. This leadership precept is essential when considering the quality concept of continuous improvement and is also relevant to the understanding of organizational culture and change.

The postindustrial economic era has been the primary contributor to the reconceptualization of leadership over the past two decades. This new postindustrial era is distinctive for its dramatic environmental and global changes. These economic, technological, political, international, and sociocultural changes have collectively been referred to as "permanent white water" (Vaill, 1989), "chaos" (Bridges, 1988; Peters, 1987), and "discontinuous" (Nadler, Shaw, & Walton, 1995). Within the context of these fundamental changes, the concept of leadership itself has changed. Rapidly changing social and environmental conditions, the need for significant organizational change, and the elusiveness of an unequivocal contemporary understanding of leadership have made the postindustrial leadership paradigm a compelling concept to explore. A number of new approaches in the design and implementation of work have been investigated as a result of environmental change and an increased emphasis on productivity and quality (Riechmann, 1992). Current initiatives have signaled a change from the control paradigm of management, typified by the Taylor and Fayol models of the early 1900s, to the commitment paradigm organizational model (Walton, 1980).
Underlying these initiatives is the growing realization that a new leadership paradigm emphasizing leader-follower collaboration in organizations is essential (Burns, 1978; Lawler, 1986; Rost, 1991).

**Leadership Paradigm Evolution**

**Trait Paradigm**

Possibly the earliest theory of leadership was the Great Man theory. This theory gained prominence in the early 1900s and proposed that leaders were fundamentally different from followers in that leaders possessed superior capabilities and personality traits. Early approaches to the study of leadership focused on this "trait theory." Studied during the period from 1920 to 1950, findings ultimately cast considerable doubt on the utility of a concept of leadership as a unidimensional personality trait and concluded the conception of leadership as a "personality characteristic" proved to be oversimplified (Bass, 1960; Gibb, 1969; Stogdill, 1948).

Since it was believed that leaders were endowed with special qualities and characteristics, much interest focused on the search for superior individual characteristics that differentiated leaders from nonleaders (Page, 1935). A number of reviews of the trait literature, mostly psychologically oriented, identified traits of personality and character that were associated with measures of leader effectiveness (Bird, 1940; Gibb, 1947; Jenkins, 1947; Stogdill, 1948). These studies, however, were rarely replicated, and few if any universal traits
associated with leader effectiveness were identified (Stogdill, 1948). The early 1970s witnessed a revival of the trait theory. Based on their theoretical work and empirical findings, Bem and Allen (1974) showed that traits are more predictive of behavior for some people than others, suggesting that trait-relevant predictability is a trait in itself.

Mischel (1973) observed that the behavioral expression of individual personality is suppressed by situational factors. Strong situations reduce the behavioral manifestation of individual disposition. This suggests that in organizations having well established role expectations and behavior norms, there is less opportunity for leaders to express their dispositional tendencies (Barrick & Mount, 1993; Lee, Asford, & Bobko, 1990; Monson, Hesley, & Chernick, 1982). After updating his earlier review, Stogdill (1974) concluded he underemphasized the possibility that some traits exhibited by leaders might be universal. Lord, DeVader, and Alliger (1986) found that three traits—intelligence, dominance, and masculinity were all associated with follower perceptions of leadership. However, these findings are considered atheoretical and provide no explanation for the proposed associations between the traits and leader effectiveness (House & Aditya, 1997).

To date, the results from the leader trait research can be summarized by pointing to three salient findings (House & Aditya, 1997). First, the traits that continue to appear to differentiate leaders from others are intelligence (Simonton, 1994; Stogdill, 1974), achievement motivation (House, Spangler, & Woycke, 1991; McClelland,
1985), and prosocial influence motivation (House & Baetz, 1979). Second, the effects of individual traits and dispositions on leader behavior and effectiveness are enhanced by the relevance of the specific traits to the situation in which the leader operates (Schneider, 1983). Third, individual traits will have a stronger influence on leader behaviors when "weak" situational characteristics—such as the absence of organizational role and norm expectations—permit their expression (Barrick & Mount, 1993).

Behavior Paradigm

During the 1940s and 1950s, the principles of the behavioral school of psychology were gaining in popularity and acceptance. This trend, coupled with the disillusionment with the trait approach and the fact that leader behaviors were easier to observe and measure, caused leadership research to shift away from traits and move toward the study of leader behaviors and situational contexts. Much of the initial leader behavior research was conducted at Ohio State University (1953–1957) and the University of Michigan (1950–1961).

The Ohio State University Leadership Studies (1953–1957) focused on leader behaviors in work settings and produced findings that described supervisory behaviors in terms of two categories, which were subsequently labeled "consideration" and "initiating structure." These factors were described as:

1. Initiating Structure: The leader's behavior in delineating the relationship between himself and members of the work group and in
endeavoring to establish well-defined patterns of organization, channels of communication, and methods of procedure.

2. Consideration: Behavior indicative of friendship, mutual trust, respect, and warmth in the relationship between the leader and the members of his staff (Stogdill & Coons, 1957).

This emphasis shifted research from leader traits alone, to include the follower, leader behavior, and situational variables. Studies found the relationship between consideration and rated effectiveness varied substantially over populations. Many studies have been conducted to investigate the effects of consideration and initiating structure, but the results have been inconsistent and inconclusive (Bass, 1990; Kerr & Schriesheim, 1974; Yukl, 1971). Similarly, correlations between initiating structure and rated effectiveness showed considerable variability with a substantial number of reports of zero or negative relationships (Halpin & Winer, 1957).

The University of Michigan Studies, the second major research program, also investigated behavioral differences in leaders. Rather than describing the variety of leader behaviors in the work setting, the researcher's objective was to identify leader behaviors that led to effective group performance by identifying relationships between leader behavior, group processes, and measures of group performance (Likert, 1961). Initial research consisted of field studies from various business sectors including insurance and manufacturing (Katz & Kahn, 1952; Katz, Maccoby, & Morse, 1950). The research found that three types of leader behavior differentiated between effective and ineffective leaders:
task-oriented behaviors, relationship-oriented behaviors, and participative leadership behaviors (Likert, 1961). Further, researchers identified four categories of leader behavior related to effective group performance: leader support, interaction facilitation, goal emphasis, and work facilitation (Bowers & Seashore, 1966). Bowers and Seashore (1966) extended their investigation of effective leader behaviors by claiming that most leadership functions could be accomplished by subordinates as well as managers. They suggested that since leadership functions did not need to be carried out only by the designated leader, a group's effectiveness will depend more on the overall quality of leadership in the work group than on who actually performs the functions.

Although similar to the Ohio State studies, the Michigan studies also uncovered leader behaviors concerned with motivating subordinates and clarifying roles—and the research results consequently took on a more “prescriptive” dimension. However, research conducted within the leader behavior paradigm shared some shortcomings with the earlier leader trait research. The behavioral paradigm research was based on observations of individuals, and the studies relied too heavily on questionnaires, which, though presumably reflected global patterns of behavior, often measured attitudes. The research was largely inductive, lacked theoretical orientation, and gave insufficient consideration to the specific role demands of leaders and followers (Schriesheim, House, & Kerr, 1976). Also, it was shown that relationships between leader
behaviors and group outcome measures such as productivity were mediated by group norms (Yukl, 1989).

**Universal Paradigm**

While most leader behavior research focused on consideration or "people-oriented" behavior and initiation or "task-oriented" behavior, a large amount of behavior research has been associated with "participation." Participative leadership commonly involves using decision-making approaches that allow subordinates to influence a leader's decisions. This type of leader behavior has also been referred to as consultative, decentralized, and democratic (Yukl, 1989). Participative leadership is a category of leader behavior distinct from task and people orientation, but the three categories overlap (Yukl, 1971).

Participative leader behaviors are rooted in the ideas of Mary Parker Follett. Follett (1932/1941) recognized that businesses and corporations were social institutions and therefore called into question centralized concentrations of power. Follett did not believe authority should be concentrated at the top of the hierarchy, and in 1932 summarized her views by developing four principles of administration: (1) coordination by direct contact of the responsible people concerned, (2) coordination in the early stages, (3) coordination as the reciprocal relating of all the factors in the situation, and (4) coordination as a continuing process. These principles advocated the placing of control in the hands of those in lower levels of the organization, and emphasized linking departments to enable collaboration and gain follower
commitment. Her concepts were instrumental in countering the rigid trends of classical scientific management theory and helped to facilitate the Human Relations Movement (1935–1950) in organizational theory.

Participative decision models have been derived from the search for effective leader behaviors. Tannenbaum and Schmidt (1958) conceptualized participation and direction as existing on a continuum reflecting how much authority is utilized by a superior in relation to how much freedom is permitted to a subordinate. Vroom and Yetton (1973) developed a prescriptive participative decision-making model that detailed the situations in which a leader should be directive or participative to maximize employee satisfaction and effectiveness. Both models describe decision procedures which are ordered along a continuum ranging from “no influence by others” to “high influence by others.”

Research on “supportive,” “task-oriented,” and “participative” leadership approaches during the 1940s, 1950s, and early 1960s led to what could be called the “universal theories” of effective leader behavior. A universal theory postulates that a certain leader approach is optimal in all situations. Two such normative theories which gained prominence are System 4 (Likert, 1961) and the Managerial Grid (Blake & Mouton, 1964).

Likert (1961) stated, “Measurements now made available by social science research reveal that managers achieving better performance (i.e., greater productivity, higher earnings, lower costs, etc.) differ in
leadership principles and practices from those achieving poorer performance" (p. 3). Likert's System 4 is based on a model that incorporates participative leader behaviors and teamwork. This model characterizes organizations as having one of four types of management systems. System 1, referred to as "exploitive authoritative," exhibits an autocratic, top-down approach to leadership. System 2, referred to as "benevolent authoritative," differs from System 1 only inasmuch as leadership is more paternalistic. System 3 is called "consultative," and although it increases employee interaction, management still makes final decisions. Finally, System 4, called "participative group," exhibits leadership designed around group methods of decision making, problem solving and supervision in a system that fosters a high level of employee involvement and participation (Likert, 1961). Likert associated elements of McGregor's Theory Y (1960), including teamwork, mutual trust and respect, and open communications, with System 4 and proposed:

Research in organizations is yielding increasing evidence that the superior's skill in supervising his subordinates as a group is an important variable affecting his success: the greater his skill in using group methods of supervision, the greater are the productivity and job satisfactions of his subordinates. (p. 26)

Likert (1961) postulated that organizational causal variables can be altered or changed by the members of the organization. These changes directly affect intervening variables, which include individual and group attitudes and behaviors. The intervening variables ultimately affect the end-result variables related to performance, productivity, and quality. Although System 4 is a normative leader behavior model, it expands the concept of leadership from a leader quality to an organizational quality
which considers organizational development and change a major goal. The design of System 4 easily adapts to changing environments since it relies on the full range of human potential within the organization. Likert (1961) posits that the full range of human potential can be realized only when supportive relationships exist, group involvement is utilized, and high performance goals are maintained (p. 47). The principle of supportive relationships means that management, procedures, and norms in the organization must function so that each individual, in his or her own frame of reference, will feel supported and valued. Likert presented evidence that System 4 is the most effective management system for organizations and maintained that leaders can learn to operate under System 4 principles: “Data . . . show that managers who seek to do so can readily learn better systems of management” (1967, p. 190). After nearly 30 years of research involving more than 220,000 managers and employees in industrial organizations, Likert concluded that participative leadership principles can achieve higher performance (20–40%) than the traditional business operation, and that the causal variables are organizational climate, leadership, and organizational structure (Likert, 1975).

Blake and Mouton (1964) studied the relationship between leader behaviors associated with task accomplishment and people development. They developed the two-factor Managerial Grid theory to clarify the behavioral dynamics of leaders in terms of “concern for people” and “concern for production.” Prior to this research, these two leader behaviors were considered separate action sequences. However, a
different assumption was made by the universal two-factor theorists who postulated an "interactive" rather than an "additive" model (Blake & Mouton, 1964; Likert, 1967; Misumi, 1985). These models contend that leader behavior reflecting a concern for both people and production is qualitatively different from leader behavior which shows a concern for only people or production based on individual predispositions. Blake and Mouton (1982) focus on the qualitative elements of behavior and recognize that to be effective, leaders must select specific types of behavior appropriate for the specific situation, not merely respond reflexively with the same behaviors for any situation. Thus, they describe an effective leader as one who selects behaviors that accomplish people and production concerns simultaneously. In contrast, an ineffective leader acts in ways that reflect concern for people but disregard for production, or concern for production but disregard for people, or a lack of concern for both.

Blake and Mouton (1964) identified five different types of leadership based on the concepts of concern for task accomplishment or "production," and concern for personal relationships or "people." Their grid model consists of an "X" axis representing concern for people, and a "Y" axis representing concern for production. Each axis is divided into a 9-point scale, with "9" reflecting a high degree of concern for the dimension and "1" reflecting a low degree of concern for the dimension. Leadership is described in terms of number coordinates such as "1,9"; "9,1"; or other combinations derived from the grid. Although 81 possible combinations exist within the grid, the combinations associated with the
four corners and the middle of the grid are considered the most significant. These five types of leadership are presented below with their popular labels and brief descriptions:

1. $1,1$ Leadership—"Impoverished": Exertion of minimum effort to get the required work done is appropriate to sustain organizational membership.

2. $1,9$ Leadership—"Country Club": Thoughtful attention to the needs of the people for satisfying relationships leads to a comfortable and friendly organizational atmosphere.

3. $9,1$ Leadership—"Task": Efficiency in operations resulting from arranging conditions of work in such a way that human elements interfere to a minimum degree.

4. $5,5$ Leadership—"Middle of the Road": Adequate organization performance is attained through balancing the necessity to get out work with maintaining morale of people at a satisfactory level.

5. $9,9$ Leadership—"Team Approach": Work accomplishment results from highly committed people; interdependence through a common stake in the organization purpose leads to relationships of trust and respect (Blake & Mouton, 1964).

Blake and Mouton (1968) researched organizations from the United States, Japan, and Great Britain, and gathered data related to organizational excellence. They also identified two major barriers to organizational excellence: planning and communication. These barriers were considered to be symptoms of deeper problems. They suggested that the underlying cause for the planning barrier is the lack of an
organizational strategy based on clear logic, and the underlying cause for the communication barrier is the character of supervision which is influenced by the lack of knowledge about explicit theories of human behavior. This implies that a technically competent supervisor will be unable to generate good results without an understanding of human motivation and group dynamics. Blake and Mouton point out that such a supervisor will not have the knowledge and ability to establish an environment that provides a clear purpose and objectives, full commitment, and cooperation resulting from the sound utilization and collaboration of people. Blake and Mouton (1978) prescribe the 9,9 orientation, reporting that it has consistently proved to contribute positively to a variety of performance criteria in organizational development studies. The researchers have explained that 9,9 leadership is attained through the practice of behavioral science principles that involve mutual trust and respect, involvement and commitment, open confrontation, consensus, mutually determined objectives, and change and development through feedback (Blake & Mouton, 1981).

**Contingency Paradigm**

The leadership evolution process continued with the emergence of the Contingency approach. This approach to leadership was advanced to reconcile divergent findings regarding leader behavior. Contingency theories not only focus on the behavioral aspects of leadership but also on developing leadership strategies. The Contingency paradigm assumes that there is no "one best approach" to leadership, but that leader
effectiveness is determined by the situation. The three major contingency theories are the Least Preferred Co-worker Contingency Model (Fiedler, 1967, 1978), the Situational Leadership Model (Hersey & Blanchard, 1969), and the Path-Goal Leadership Model (House, 1971).

The least preferred coworker (LPC) model identifies two leader styles: the task-oriented and the relationship-oriented as measured by the LPC scale. These orientations are associated with various levels of leader effectiveness based on three situational contingencies which combine to produce the situational favorability: (1) leader-member relations, (2) task structure, and (3) leader position power. Favorability is determined by weighting and combining the situational contingencies. The possible combinations yield eight levels of favorability, referred to as octants. Fiedler advanced a "hierarchical" conceptualization of LPC scores claiming that the scores identify a leader's motivational hierarchy.

Rice (1978) reviewed available evidence on LPC scores and concluded that the data supported a value-attitude interpretation better than a motive-hierarchy interpretation, since the data were more consistently and strongly related to attitudes than to behavioral manifestations. This indicates that leader style scores are more dependent on personality and attitudes than on a leader adapting his or her behaviors based on demands of the situation or role requirements and expectations. Supportive of Downton (1973), who surmised that task-oriented (instrumental) and relations-oriented (expressive) styles of leadership are related to personal temperament, studies have verified
the link between personal attributes such as personality and the task or relationship leader style (Atwater & White, 1985; Fleishman, 1957; Fleishman & Peters, 1962; Litzinger, 1965).

Therefore, style is considered an attitude related more to personal needs and judgments than to behavior. Fiedler (1978) perceived that style exerts a weak main effect on leader behavior in comparison to the strong interaction effects of style and the situational favorableness of the leader. It has also been observed that different types of leader behaviors have an effect on the leader's task and people orientation style (Anderson & Fiedler, 1964; Andrews & Ferris, 1967).

Studies using the LPC scale conducted over a 20-year period indicated mixed results and were reviewed using meta-analysis by Strube and Garcia (1981), and Peters, Harke, and Pohlmann (1985). These reviewers concluded that although there is some support for the model, not all of the model's eight octants were supported, with field studies being less supportive than laboratory studies. After reviewing nearly twice the number of validation correlation's as the two prior meta-analyses, Nathan, Hass, and Nathan (1986) rejected both on the grounds that the set of validity coefficients within each octant varied significantly. Despite some positive results, the LPC model has received severe criticism. Some major criticisms are:

1. Interpretation of the LPC score has been changed arbitrarily and the current interpretation is speculative (Schriesheim & Kerr, 1977).
2. Since the LPC score and the measure for leader-member relations are both obtained from the leaders, the two may be confounded (Kerr & Harlan, 1973).

3. Correlational results of the model fail to achieve statistical significance in the majority of studies (Graen, Alvares, Orris, & Martella, 1970).

The second contingency theory emphasizes adaptive leadership that is responsive to the subordinates' level of confidence and skill. Hersey and Blanchard (1969) observed that leaders do not interact with all their followers in the exact same way. They developed Situational Leadership Theory (SLT) to determine the optimal way to adjust leader behavior dependent on various levels of follower maturity. The roots of SLT are in the Ohio State studies. However, Hersey and Blanchard divided the initiating structure and consideration categories into high and low segments and proposed that these four combinations of task and relationship behaviors would increase leadership effectiveness if they were made contingent on the maturity level of the individual follower. SLT is appealing because of its common sense approach, yet there is little empirical evidence to support the predictions of the SLT model in the workplace. It appears that maturity may account for higher levels of motivation regardless of the leader behavior as studied by Blank, Weitzel, and Green (1987), who concluded that their analysis lent little support for the SLT model. In contrast to the myriad of variables that deal with subordinate's performance such as technology, structure, managerial control, coordination, and self-control, the emphasis on the
maturity level to determine when direction or participation is appropriate is considered to be of minor importance. In a disarming observation, Blake and Mouton (1982) explained the popularity of situationalism by suggesting that it allowed leaders to do their own thing by providing freedom from principles that are complex to learn and practice, thus allowing a leader to keep all options open.

Although, due to its simplicity, SLT commands a remarkably widespread intuitive appeal with practicing managers, little research has been conducted to test the theory. Studies by Blank, Weitzel, and Green (1987) and Hambleton and Gumpert (1982) found only partial, weak support for the theory. Other conceptual weaknesses include:

1. Explanations proposed by SLT are inconsistent with research on leadership and motivation (Graeff, 1983).

2. Subordinate maturity is defined too broadly and is conceptually ambiguous (Barrow, 1977; Graeff, 1983).

3. Leader behavior is not consistently defined or operationalized in an unbiased manner (Blake & Mouton, 1981; Graeff, 1983).

The third contingency approach, Path-Goal Theory (House, 1971) is based on the leader's effectiveness in increasing follower's motivation along a path that leads to a goal. Path-Goal is fundamentally an exchange theory of leadership. It basically attempts to explain how and why contingent reward influences the motivation and satisfaction of subordinates. Path-Goal Theory states that the effect of leader behavior on the satisfaction and effort of subordinates depends on the situation, task characteristics, and subordinate characteristics. Leader behavior is
viewed as acceptable to subordinates when they determine such behavior will be an immediate source of satisfaction or instrumental to their future satisfaction. However, the effect of leader behaviors on subordinate satisfaction is not necessarily the same on subordinate effort. Depending on the situation, leader behavior can affect both the same, both differentially, or affect one but not the other (House & Dessler, 1974).

The four types of leader behavior outlined by the Path-Goal model are directive, supportive, participative, and achievement-oriented. Task characteristics include the degree of structure, boredom, danger, and stress, to name a few, while subordinate characteristics include their motivation, confidence, ability, anxiety, and role ambiguity. Although Path-Goal focuses on the importance of motivation in followers, it is based on expectancy theory which is considered to have a weak conceptual foundation (Schriesheim & Kerr, 1977). Regarding the leader's role, a leader can affect subordinates' efforts in the following manner: clarify the subordinate's role, make rewards contingent on performance, increase the size or value of rewards, provide support, alleviate boredom, coach, and provide direction. However, it appears that the leader needs only to complement the factors missing in a situation to affect subordinates, and the effect of the leader can be replicated by various substitutes for leadership (Fiedler & House, 1988; House & Mitchell, 1974). If what is missing can be satisfied through policies, communication, training, or group norms, these substitutes for
leadership may result in the same outcomes that would be expected from the appropriate leader involvement.

Research conducted to test the Path-Goal Theory has yielded mixed results (Evans, 1996; Indvik, 1986). Most studies confirm a positive effect of supportive leadership on subordinate satisfaction, and this effect is weakly moderated by the degree of task structure. Conceptual deficiencies of the Path-Goal Theory have brought some major criticisms:

1. The conceptual underpinnings of the theory have been questioned due to its reliance on expectancy motivation theory (Schriesheim & Kerr, 1977).

2. Assumptions regarding role ambiguity that underlie the hypotheses have been considered questionable (Stinson & Johnson, 1975).

3. The theory focuses on only a few aspects of leader behavior that are conceptualized in overly abstract and broad categories (Yukl & Clemence, 1984).

Postindustrial Paradigm

The recent global economic revolution has given birth to widespread organizational changes that are revolutionizing the role of leadership. In the high involvement, participative organization, it is not the position of leader that is obsolete, but rather the perceptions about leadership. Due to pressures that are being exerted on organizations to become more responsive to the competitive environment, many
businesses are adopting alternative forms of work design to institute new relationships with suppliers, customers, and employees. With increasing attention now being paid to quality, productivity, and competitiveness, work teams have been viewed as a major step in the direction of achieving all three goals (Maciariello, Burke, & Tilley, 1989). Many experts claim that to be effective, modern organizations need to use teams for an ever-increasing variety of activities (Reich, 1987). Work teams now occupy a pivotal role in what has been described as a management transformation (Walton, 1985), paradigm shift (Ketchum, 1984), and corporate renaissance (Kanter, 1983).

In studies investigating the predictors of group effectiveness, self-report group ratings identified the following variables as positively affecting work teams: open communications, supportiveness, active leadership, training, and trust (Gladstein, 1984). Beehr and Gupta (1987) found that work-related attitudes, behaviors, and perceptions are more favorable among employees in organizations using a more participative or team design than among employees in the traditional hierarchical organization. Manz and Sims (1984) compared data obtained from leaders and team members and demonstrated that leadership role congruence (the mutual agreement on specific roles and behaviors) led to higher levels of team satisfaction, motivation, and performance. In this changing context, the conventional leadership processes and traditional leadership paradigms are becoming increasingly obsolete.
Still, the literature continues to reflect the pervasive and enduring traditional paradigm of leadership (Rost, 1991). Regardless of the theory or approach, the leader remains the central focus of the model, and, ultimately, the concept of leadership is synonymous with the character of the leader. In this light, Yukl (1989) suggested that broad conceptualizations of leader behavior result in weak predictions of performance, and that instead of using initiating structure and consideration dimensions of leadership, theories should use more specific behaviors. Bass (1985) proposed that various types of leadership influence behaviors may make the ordinary leader into a highly successful one by building shared team responsibility, developing skills of subordinates, and building a common team vision. Leadership is now understood to be more complex than just being dependent on an individual leader's attitude or predisposition. Leadership is a process affected by situational constraints, role requirements, and organizational expectations. Although it is still possible that there are certain styles of leadership that are more effective than others, instead of studying the personality of the effective leader, researchers should search for leader-follower behavioral correlates of effective leadership at all levels to understand systemic leadership capacity (Krantz, 1990).

The dominant industrial leadership paradigm has influenced the study and practice of leadership throughout the 20th century. Although it is a paradigm in ferment, it still imposes its pervasive assumptions on researcher and practitioner alike. Some scholars have become disillusioned and dissatisfied with mainstream leadership research, thus
signaling a shift in the understanding of contemporary leadership (Burns, 1978; Gardner, 1990; Greenleaf, 1977; Heifetz, 1994; Hosking & Morley, 1988; Manz & Sims, 1989; Maslow, 1965; Meindl, 1990; Rost, 1991; Sergiovanni, 1990). Their dissatisfaction is directed at traditional leadership theories that have been concerned almost totally with leader traits and personality, leader style, contingencies, situations, goal attainment, and management—what Rost (1991) labels the peripheries of leadership. Another concern with leadership studies is that leadership has not been defined with precision, accuracy, or conciseness.

The word leadership as used in scholarly and popular publications has come to mean all things to all people. Nevertheless, there appear to be few debates concerning the definition of leadership or critiques of scholar's definitions, and virtually no criteria established to evaluate definitions of leadership (Rost, 1991). Rost (1991) points out that “the importance of understanding the true meaning of leadership—having a clear understanding of the essential nature of leadership by agreeing upon an accurate definition—is crucial to studying and doing leadership” (p. 8). In his intense review of the leadership literature Rost concludes that the analysis of the definitions of leadership reveals a fundamental understanding of leadership that is rational, goal dominated, directive, personalistic, elitist, hierarchical, and management-oriented. Leadership conceptualized as being synonymous with the leader and defined as good management is a perfect summary of what leadership has meant in the industrial era, because it is the embodiment of the industrial culture. The industrial leadership paradigm reflects the realities and perceptions
of the industrial era which include: leadership is leaders taking charge and achieving goals; leadership is good management; and, leadership depends on leader traits and style. Confusing leadership with management and equating leaders with leadership are the fundamental and definitive elements of the industrial leadership paradigm.

A new conceptualization of leadership is beginning to appear in the shadows of the industrial paradigm of leadership. While it appears that most authors are unaware of their reliance upon a very old paradigm of leadership, the industrial school of leadership is no longer accepted by many contemporary scholars and practitioners. The new economic era is radically transforming the long-held values and assumptions of the industrial era. Leadership is one of the fundamental values being transformed in this postindustrial era. By drawing upon the insights of Burns (1978), Heifetz (1994), and Rost (1991) a new leadership conceptualization emerges that describes leadership as a collaborative influence process among leaders and followers which mobilizes them to raise to higher levels of motivation and morality, intend real change, and adapt to challenges that reflect their mutual purposes.

In his extensive investigation of the field and review of the research, Rost (1991) condemns much of the leadership literature for perpetuating the industrial paradigm of leadership by equating leadership with the leader and confusing leadership with good management. He argues that trait theories, style theories, situational theories, and contingency theories can be categorized together as the
school of industrial leadership. To show how radically different the postindustrial paradigm of leadership is from the industrial leadership paradigm, Rost and Smith (1992) contrasted essential elements of the two paradigms, as seen in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Essential Elements of Two Paradigms</th>
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<tr>
<td><strong>Industrial Leadership Paradigm</strong></td>
</tr>
<tr>
<td>Good management.</td>
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<tr>
<td>Leader behaviors and traits.</td>
</tr>
<tr>
<td>Do the leaders' wishes.</td>
</tr>
<tr>
<td>Pursue any and all goals.</td>
</tr>
<tr>
<td>Use any legitimate behaviors.</td>
</tr>
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Source: Rost & Smith, 1992

The postindustrial paradigm of leadership answers the question “What is leadership in the 21st century?” Rost (1991) insists that a comprehensive definition is essential to articulate the postindustrial concept of leadership and convey the very specific meanings that contain the assumptions and values which are necessary for a transformed, contemporary postindustrial model of leadership. He offers the following definition: “Leadership is an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes” (p. 102). Rost’s definition includes four essential elements: (1) the
leadership relationship is based on influence, (2) leaders and followers are the people in the relationship, (3) leaders and followers intend real changes, and (4) leaders and followers develop mutual purposes. Rost cautions that all four elements must be present to have leadership.

Contemporary Leadership Propositions

Clearly the postindustrial paradigm of leadership dovetails three contemporary organizational imperatives: collaboration, change, and culture. Research conducted in the study of leadership over the past 40 years has often lent support to a postindustrial conceptualization of leadership. Unfortunately, the results of this important research are generally not well known or practiced—and often disbelieved. In the introductory chapter to their book *Impact of Leadership*, Clark and Clark (1992) outline various leadership propositions based on research that are generally recognized as common threads that form the basis for weaving contemporary theories of leadership. Clark and Clark point out that over the past 20 years, the literature in popular and professional articles on leadership has increased at twice the rate of articles in general. They admit that, although many writers have succeeded in perpetuating the myth of leadership as mystical and elusive, leaders exist in abundance in all types of organizations all over the world. Of the 12 propositions listed in their chapter, half are presented here in support of this study.

First, the Ohio State studies (Stogdill & Coons, 1957) identified two general dimensions of leadership, Consideration and Initiating Structure, and both have been measured repeatedly with inconsistent
results. These two leadership dimensions have been identified in many cultures (Misumi, 1985). In a cross-cultural study of electronics plant supervisors, the findings indicated that although leader style had a similar factor structure in each culture, specific behavior patterns associated with the styles differed markedly in ways which were comprehensible only within the organizational norms of each setting (Smith, Misumi, Tayeb, Peterson, & Bond, 1989). This implies that the relationships obtained in each setting could be understood only in terms of the interpretive framework extant within the organizational setting. In other words, the imputed requirements of the leader role clearly determined the leader behavior.

Second, while personality characteristics and style have been related to performance, no single effective pattern of leader qualities or leader style has been identified. In a study to test the moderating effects of leader expertise on leader styles, Podsakoff, Todor, and Schuler (1983) found that leader expertise increased leader effectiveness and moderated the effects of instrumental and supportive styles. Locke and Schweiger (1979) reviewed the effects of leader participation in 46 studies and found there were as many studies supportive of the autocratic style as there were studies supportive of the democratic style. Obviously, the effects of participation were contingent upon other factors, indicating that measuring a leader's style may be of little value, since organizational and situational circumstances often dictate leader behaviors other than those which the leader is either inclined or predisposed to perform. Bass (1985) also found that in studying the
effects of transactional and transformational leaders, the hypothesis that transformational leaders are likely to display more intense leader behavior was not supported. He found no significant differences in intensity of patterns of leadership activity levels on five of the following seven dimensions: task direction, participation, consideration, feedback, integrity, rewards, and representation.

Third, leader self-ratings of leadership effectiveness have much lower correlations with performance than estimates by others suggesting subordinates are better judges of leader effectiveness. Studies have consistently shown that there is little or no relation between leader’s self-descriptions and descriptions of leaders by their subordinates or superiors (Holton, 1984; Weber, 1980). Korman (1966) proposed that leader self-descriptions can account for nothing more than leader self-deception. He explains that there is strong evidence to show that leaders “know” how to correctly score leader effectiveness surveys. This “knowledge” is a result of leadership training and the fact that leaders are socialized to know which leader behaviors are “theoretically” important.

Fourth, descriptions of leader behaviors are better predictors than measures of leader traits. Descriptions of leader behaviors by others have been shown to relate significantly to performance, subordinates’ estimates of effort, and expressed satisfaction and motivation (Bass & Avolio, 1989). In a review of 124 trait studies, Stogdill (1948) concluded that a person does not become a leader by virtue of possessing a combination of traits. In a follow-up review of 163 trait studies conducted
between 1949 to 1970, Stogdill (1974) suggested that some traits are characteristic of leaders. However, although it is recognized that certain traits may increase the possibility that a leader will be effective, traits do not guarantee effectiveness and are dependent upon the leadership situation (Bass, 1990).

Fifth, charisma relates more to the personality of the leader than to performance and produces an emotional response in followers. Personality traits are asserted to be antecedents to charismatic leadership and effectiveness (House, 1977). Charisma is also considered an attribution resulting from the interactive process between leader and follower. However, some traits perceived as charismatic in one leader may be perceived as irrational in another (Yukl, 1989). Hogan, Raskin, and Fazzini (1990) investigated leader maladjustment and caution that there can be a “dark side” to charismatic leaders. Charismatic influence is facilitated by contextual cues that cause psychological distress in followers, such as when the context evokes feelings of uncertainty (Conger, 1985), or helplessness, powerlessness, and alienation (Kanungo, 1982). Followers’ perceptions of self-efficacy reduce their dependence on the leader and weaken the leader’s charismatic influence. This mechanism most likely accounts for the fading of a leader’s charismatic control with increased follower empowerment and the institutionalization of organizational changes. Empowerment reduces the follower’s sense of powerlessness, and institutionalization reduces follower ambiguity (Conger & Kanungo, 1988a).
Sixth, effective leader behaviors are trainable, and the effects of training have been proven to persist (Clark & Clark, 1992). Leader reports of behavioral change during and following training have been related to improved working relationships (Morton & Bass, 1964), increased employee participation (Miles, 1965), and group productivity (Blake, Mouton, Barns, & Greiner, 1964). Various leadership training methods focusing on leader behaviors have been validated and shown to be effective (Burke & Day, 1986). Some of these training methods include behavior modeling (Sorcher & Goldstein, 1972), contingency model Leader Match training (Fiedler & Chemers, 1984), and motivational Goal Setting (Locke, 1968).

Lastly, embedded in these six propositions are four issues of high salience:

1. To reap benefits of improved leadership and followership, leaders must be honest, earn trust, inspire loyalty, respect followers, and work for their interests.

2. Organizational policies must be in accord and reinforce leader’s pronouncements and behaviors.

3. Beliefs and values must be made explicit, be well articulated, and adhered to in the organization.

4. Because imputed role requirements can often determine leader behaviors, organizations must instill those contemporary behaviors that will be most appropriate and effective, and battle traditional stereotypes to the contrary (Clark & Clark, 1992).
To summarize, the conception of leadership as a "personality characteristic" is an oversimplification. The widely used distinctions of task-oriented (initiating structure) and people-oriented (consideration) leader styles have not consistently been related to positive performance outcomes. Furthermore, there is sufficient evidence in the literature to support the premise that leader style is not critical to employee productivity, especially in a contemporary work design. A successful high-performance work design depends on the attainment of cooperation, facilitation, coordination, and individual as well as team development. These qualities are presumed to be highly dependent on the leader developing and displaying contemporary leadership behaviors. The leader's role based on a contemporary definition of leadership which reflects the values and expectations of the organization is likely to be a key to transforming a collection of individuals into a cohesive team of collaborators capable of achieving high levels of performance and realizing intended change.

The following section contains a brief elaboration of the first three research questions and presents the proposed conceptual hypotheses.

Elaboration of Research Questions 1–3 and Conceptual Hypotheses

Research Question 1

Is there a relationship between leader style and reported follower descriptions of leader behavior?
The personality and style of a leader has been vastly overrated in the attempt to understand leadership in an era that sanctioned centralized bureaucratic hierarchies. The modern day preoccupation with leaders may be a natural response to the general sense of social, political, and economic malaise in our country. The sense of anxiety produced by a lack of direction, purpose, vision, meaning, and mission can ultimately lead to a sense of helplessness and an eagerness to find or to be found by a leader. This human weakness reinforces the myth of the heroic leader, thus supporting the traditional paradigm of leadership—a paradigm that has taken its toll on business, industry, education, and government. In this new economic age, further research to determine which type of leader style is most effective will remain an impractical and inappropriate academic exercise. A more complex set of demands, roles, responsibilities, and relationships are now recognized as being integral to contemporary leadership. The concept of leadership in organizations can no longer simply be synonymous with the leader. Leadership in the postindustrial era will be a function of the leader-follower relational process, legitimating principles, expected cultural norms, and the dynamics of the organizational social structure within which it occurs. Conceptualizing leadership in relational terms instead of individual terms implies that there is a dramatic and fundamental difference between a leader's style and a leader's behavioral role. This conceptualization further suggests that since leader style is dependent upon individual predispositions and leader behavior is dependent on
organizational expectations, leader style and leader behavior are not inevitably related.

Conceptual Hypothesis 1

Regarding the first research question stated, the following conceptual hypothesis is proposed: In the organization under study, leader style will not be an important factor related to follower perceptions of their leader's behavior. Leader style will not influence follower descriptions of leader behavior, and leader behavior will not be dependent upon leader style.

Research Question 2

Is there a relationship between leader style and leader leadership paradigm?

Leader style has been described as a predisposition or preference linked to individual personality and temperament. Style has also been linked to leader characteristics and motivations related to individual attitudes and needs. Leader style is an aspect of behavior. However, leader style is neither symptomatic of leader behavior nor is it necessarily manifested behaviorally. Yet in the absence of organizational norms, expectations, and principles that serve to guide leader behavior, the style of the leader will likely dominate the leader behavioral role. A paradigm is defined as a pattern, a model, or a framework for understanding and explaining certain aspects of reality. Paradigms contain certain assumptions about the nature of the world and how it
might be viewed. A leader's leadership paradigm consists of core assumptions and ideas about the nature of man and organizations. A leader's behavior will be strongly influenced by assumptions and values of the dominant paradigm in use. For example, in an organization that espouses and embraces the postindustrial paradigm, a contemporary conceptualization of leadership will exist that frames the beliefs, values, assumptions, and behaviors of leaders independent of their personal styles.

Conceptual Hypothesis 2

Regarding the second research question stated, the following conceptual hypothesis is proposed: In the organization under study, leader style will not be an important factor related to the leadership paradigm of the leader. Leader style will not influence the leader's definition of "leadership," and the leader's leadership paradigm, as expressed in their definition, will not be dependent upon their leader style.

Research Question 3

Is leader leadership paradigm related to follower descriptions of leader behavior?

Any approach to leadership will be predicated upon assumptions that frame and define reality for the leaders. The set of assumptions which reflect the values, beliefs, and principles of the specific leadership approach can be referred to as a paradigm. In organizations, dominant
paradigms will exert a great amount of influence over people by defining their realities and framing their experiences. In this sense, the leadership paradigm defines organizational leadership, and leader behaviors become manifestations of the leadership paradigm. Likewise, an organization's approach to change will be determined by its change paradigm. In the case of a planned change related to total quality and high performance work systems, the change assumptions become inextricably linked with complementary leadership assumptions. Since contemporary leader behavior facilitates organizational change, a leadership paradigm which extols contemporary assumptions of organizations should be espoused and expected. If these assumptions are internalized by an individual leader or institutionalized by a collective group of leaders, their behaviors will reflect the underlying beliefs and values of the paradigm.

**Conceptual Hypothesis 3**

Regarding the third research question stated, the following conceptual hypothesis is proposed: In the organization under study, leader leadership paradigm will be an important factor related to leader behavior. Leader leadership paradigm will influence leader behavior, and a leader's behavior as described by followers will be dependent on the leader's leadership paradigm.
Leadership and Planned Change

In the late 1940s, a paradigmatic shift was set into motion at Ohio State University, where researchers began to explore the activities leaders performed instead of the traits they possessed (Shartle, 1949, 1951). Thirty years later, James McGregor Burns (1978) initiated a second paradigmatic shift with his classic, *Leadership*. Previously, most research on leaders focused exclusively on leader-follower exchanges and transactions. Burns observed that world-class leaders not only practiced this transactional leadership of contingent reinforcement, but also aimed at transforming their followers. According to Burns (1978), transactional leaders work within the framework of their follower’s framework, whereas transforming leaders act to change their follower’s framework. Beyond catering to self-interests of followers by promising rewards for compliance or threatening punishment for noncompliance, transformational leaders inspire their followers to transcend their self-interests for the sake of their group, organization, or community. Burns observed that these leaders moved their followers to a higher level of motivation and moral development by heightening their awareness of beliefs and values. In this manner, transformational leaders contribute to the motivational and moral maturity of followers and the development of their organization.

Bass (1985) further identified several types of behaviors that may make an ordinary transactional leader a more highly successful transformational leader, encouraging “performance beyond
expectations." These included influencing and inspiring followers, intellectually stimulating followers by encouraging innovation and new approaches to problem solving, and showing individual consideration by dealing with followers on an individual basis to meet their developmental needs. Similarly, contemporary leadership practices include leader-follower influence, collaboration, and transformation (Rost, 1991; Schein, 1992).

Burns (1978) described transformational leadership as a process of interrelationships in which leaders and followers influence each other to modify their behaviors as they encounter responsiveness or resistance to change. According to Burns, transformational leadership can be exhibited by anyone in an organization. Transformational leadership is considered a micro-level influence process between individuals as well as a macro-level influence process for mobilizing power to change social systems and reform institutions. Burns posited that the fundamental crisis underlying leadership mediocrity is intellectual in nature. He emphasized two observations to support his claim: (1) a failure to grasp the essence of leadership in the modern age, and (2) a persistence in thinking that the roles of leader and follower are mutually exclusive and conceptually segregated. Recognizing that most relationships between leaders and followers are transactional in nature, Burns explained it is the transformational leader that not only recognizes and exploits an existing need of a follower but also appeals to motives within the followers, and through this engagement of the full person of the follower seeks to satisfy their higher level needs. Transforming leaders therefore
induce followers to act for goals that represent the wants and needs and the aspirations and expectations of both the leader and follower. Burns further proposed that the genius of leadership lies in the manner in which the leader sees and acts on his or her own and the followers' needs, values, and motivations, thereby transforming followers into leaders (p. 4).

In their investigation of “postheroic” transformational leadership, Bradford and Cohen (1984) reported superior performance based on the leader building shared responsibility in teams, developing skills of followers, and creating a common vision. Tichy and Devanna (1986) reported that transformational leaders are instrumental in bringing about change, innovation, and entrepreneurship. They described transformations that recognized the need for revitalization, institutionalized change, and vision. Similarly, Leavitt (1986) stressed the importance of vision as a key element in the “management process.”

The idea of the leader as a transforming agent has been applied to the study of organizational leadership to account for exceptional levels of performance (Bass, 1985; Bass & Avolio, 1994). Bass (1985, 1990) considers transformational leadership as an extension of transactional leadership, and as more than just another term for charisma. He sees charisma as a necessary but insufficient condition for transformational leadership, and transformational leadership producing greater rewards in leader intensity and follower arousal than transactional leadership. According to Bass, transformational leadership consists of the two transactional factors of contingent reward and management by
exception, in addition to the dimensions of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration for followers (Bass & Avolio, 1994). Bass (1985) describes the transformational leader behaviors as transforming followers by making them keenly aware of values, by activating their higher order needs, and by inducing them to transcend self-interest for the sake of the organization. The transformational perspective has redirected the primary focus in leadership away from the leader and toward the leader-follower relationship. This balanced consideration for the follower diminishes the pervasive mythology of the heroic and charismatic leader, and enhances a systems view of leadership. It also brings into focus the equally important dimension of leader-follower motivation based not only on transactional "contingent reward," but more upon transformational "reciprocal commitment."

The ideas about leadership itself have changed. Changes in leadership ideas have occurred not only in the way leadership is defined, but also in the way leadership is practiced. In the ancient world, the idea of leadership was one of domination and rule over followers. During the time of the American Revolution, a distinctly different idea of leadership surfaced, an enlightened democratic approach, that of social influence. In the 20th century, the idea of leadership evolved to reflect an understanding of human psychological motives. This modern idea of leadership is one of creating follower commitment, leader-follower collaboration, and real intended change (Bass, 1985; Burns, 1978; Heifetz, 1994; Rost, 1991). The evolution in the concept and practice of
leadership clearly indicates the consistent tendency to decrease the inequality between leaders and followers.

Today, the idea of leadership is that of a relational process in which the roles of leaders and followers merge into “reciprocating partners,” thereby erasing the distinction between leaders and followers (Drath, 1998). Contemporary postindustrial leadership is the profound symbiotic learning relationship between “co-leaders” who purposefully and effectively lead and follow one another, thereby creating an orchestration of motivation directed at transforming the organization by collaborating in purposeful and intended adaptive change (Barker, 1994; Burns, 1978; Heifetz, 1994; Kelly, 1992; Kotter, 1996; Rost, 1991; Schein, 1992; Senge, 1990; Vaill, 1978; Wheatley & Kellner-Rogers, 1996).

It has already been noted that global competition, technological advancements, and organizational expectations are contributing to the rapidity and degree of change. The decades of the 1980s and 1990s witnessed an increasing number of business organizations under tremendous pressures to change, fight for their very survival by implementing a variety of organizational change strategies (Kilmann & Covin, 1988; Lawler, Ledford, & Mohrman, 1989; Lawler, Mohrman, & Ledford, 1992, 1995). Recent research, however, indicates that reported results of many planned organizational change efforts are discouraging. In one study, nearly one half of the major organizational change initiatives were not meeting expectations, as reported by managers from a sample of over 100 Fortune 500 firms (Schiemann, 1992). In another study, in-depth interviews with executives representing 14 industries
implementing various organizational changes in work redesign and organizational culture found that as many as 75% of the change initiatives failed (Arthur D. Little, 1994).

Since change and leadership are inextricably interwoven (Bass, 1985; Bennis & Nanus, 1985; Burke & Litwin, 1992; Covey, 1996; Deming, 1986; Heifetz, 1994; Kotter, 1996; Rost, 1991; Schein, 1992), contemporary leaders must be re-educated in the principles of contemporary change and the psychology of organizational change (Burke & Church, 1992; Deming, 1986; Schein, 1992). No longer can a coping defensive strategy be successful as a reaction to change. Organizations must now pro-act with change and make continuous change an offensive strategy in this new economic era. The critical question is: How can organizations overcome their resistance to the very thing that will determine their future survival—adaptive organizational change?

**Planned Change Perspectives**

The classical organizational perspectives of the early 1900s spawned the scientific management theories which were based on the *industrial paradigm* (Taylor, 1911). The early advocates of the classical perspective essentially viewed organizations and jobs from a mechanistic point of view. They characterized organizations as machines and workers as cogs within the machines. The focus was on standardizing and controlling human behavior. By 1930, a new perspective began to emerge based on contributions made by the advocates of the behavioral
perspective (Mayo, 1933). This approach placed more emphasis on individual attitudes and behaviors and group behavioral processes in the workplace.

Literature addressing human nature and behavior that aimed at overcoming the common knowledge of the time included the works of German psychologist Hugo Munsterberg (1913), and American management theorist Mary Parker Follett (1932/1941). Their ideas were instrumental in modifying the trend toward the rigidly structuralist views of classical theory, and provided the rationale that was helpful in ushering in the human relations movement. The human relations movement grew from the famous Hawthorne Plant studies (1927–1932), as well as from the research it inspired. This approach added new definitions of human nature: “neo-mechanistic man” and “instrumental man.” It was recognized that people constantly grow in their personality and in their aspirations. The more people grow, the less they are able to function under authoritarian systems. The myths that industry had supported were for the most part invalid and did not tell the whole story about man’s nature. As technology developed, so too did the level of human activity. The capacity of higher human intellect and the instrumentality of higher human needs could no longer be suppressed or ignored. These technological and human advancements, referred to as “socio-technical” forces, played a critical role in the evolution of contemporary organizational theory. The socio-technical view (Emery, 1959) emphasized human assets in the form of employee knowledge, capacities, and skills, advancing an approach to organizational change.
and development through a participatory, group-centered methodology. These technological and social imperatives led to a deeper understanding of the dynamics of organizations which required new conceptual frameworks and paradigms to bring about planned transformational growth and change.

The concept of planned organizational change has been discussed and investigated in the literature for nearly 40 years (Bennis, Benne, & Chin, 1961). Some theories and technologies of organizational change are strictly "normative" in nature, urging organizational change without any explicit method or model: Douglas McGregor's "Theory X and Y" (1960), and Abraham Maslow's "Hierarchy of Needs" (1954) best represent this approach. Advancing a "prescriptive" individual approach to change, Frederick Herzberg dovetailed motivational dimensions with job design dimensions to suggest another approach to organizational change based on his "Two Factor Theory" (1966). The Two Factor Theory differentiates between "hygiene" and "motivating" factors. Findings suggested that factors involved in producing motivation were separate and distinct from the factors that lead to job dissatisfaction, implying that satisfaction and dissatisfaction are not opposite feelings. The centerpiece of Herzberg's approach, "job enrichment," aims at improved organizational performance by bringing about the effective utilization of employees through job design and self-motivation.

Kurt Lewin (1947) was the first to demonstrate the superiority of the group approach over the individual approach in changing human behavior. Lewin's research focused on changing the norms of work
groups. Coch and French (1948) also employed the use of group dynamics to change work methods. They demonstrated that involving groups in the change led to what they described as spectacular results. The involvement consisted of open and honest front-end communication, group discussion and unsupervised dialogue, involvement in problem solving, consensus reaching, training, decision making, and evaluation. The work of Lewin (1947) led to a reconceptualization of change as a "three step process": (1) unfreezing the present state—by introducing new information or experiences which change old values and assumptions; (2) relearning in the transition state—by making actual decisions which legitimizes new processes; and (3) refreezing or institutionalizing the future state—by relying on training, rewards, and other means to perpetuate the new system. Coch and French (1948) demonstrated the significance of the power of a group to influence members, and the importance of self-efficacy and self-determination.

Other approaches to change, such as Rensis Likert’s “System 4” (1967) and Robert Blake’s and Jane Mouton’s “Managerial Grid” (1964) include assessing the present or “real” state or condition, and defining the desired or “ideal” state or condition. These approaches are examples of “prescriptive” theories inasmuch as they strongly prescribe a generalized technique. Reducing the power differential between superior and subordinate in organizational settings is a main theme of these contemporary theorist and practitioner change interventions. In the past, powerful management fully planned and implemented change. Today, it is recognized that employees should be included in the change process as
collaborators and change agents. Power sharing, in the form of opportunities to discuss proposed changes, facilitates the acceptance of change by members who will be affected by it (Coch & French, 1948). Also, participation in planning and decision making regarding the change induces a still higher degree of acceptance and commitment to the change (Blake & Mouton, 1964; Lewin, 1947; Likert, 1967).

Contemporary approaches to change are dominated by efforts to develop strategies and tactics that will enable and empower leaders and followers to plan and manage change. Chin and Benne (1976) outlined three “strategic orientations” that are common in the planning and management of change: (1) empirical-rational, (2) power-coercive, and (3) normative-reeducative. The empirical-rational approach relates to the scientific generation of new knowledge and its use as the key to change. This model focuses on developing an orderly process with a clear sequence of steps leading from new knowledge to planned application. In essence, this approach attempts to bridge theory and practice. The power-coercive approach relies on its willingness to use or threaten to use sanctions in order to obtain compliance. From a power-coercive point of view, rationality, reason, and human relations are all secondary to the ability to effect changes through the exercise of power and coercion. The empirical-rational and the power-coercive strategies share two assumptions—that when left to their own devices, organizations (1) will emphasize stability over change, and therefore, (2) must be made to change.
The normative-reeducative strategy is quite different from the orientation held by the empirical-rational and power-coercive views, which are conceptually classical and bureaucratic in nature. The normative-reeducative strategy of change and renewal states that the norms of the organization's interaction-influence system (the values, beliefs, and attitudes—in other words, *culture*) can be deliberately shifted by collaborative action of the people who make up the organization. For Likert, this would be expressed as moving away from System 1—"authoritative management" toward System 4—"participative management." Blake and Mouton would describe this type of change as the organization moving toward the 9,9 grid quadrant of team management. Owens (1991) states that the objective of these normative-reeducative change strategies is to help organizations

... develop the capacity to engage in an active search for solutions to their own problems, to adapt solutions to the particulars of their own situation, and equally important, to adapt themselves as organizations to the requirements of the selected solutions. (p. 221)

An example of a contemporary approach to change that reflects the normative-reeducative strategy is the organizational renewal model. Gordon Lippitt (1969) elaborated a well-developed approach to the process of organizational change called "self-renewal" based on the birth-youth-maturity life cycle. Organizational self-renewal postulates that effective change cannot be imposed; rather, it seeks to develop an internal capacity for continuous problem solving. The process of self-renewal includes the increased capacity to (a) sense and identify emerging problems, (b) establish objectives and goals, (c) generate valid
alternative solutions, and (d) implement the optimal alternative. One outcome of the renewal process is to shift the culture from emphasis on traditional routines and bureaucratic rigidity toward a culture that actively supports the view that much of the knowledge needed to plan and carry out organizational change is possessed by the members of the organization.

Organizational change inevitably involves modifying human behavior. Organizational culture is institutionalized behavior (Deal & Kennedy, 1982). It is how people in an organization interrelate and behave as they go about their work. The frequency and magnitude of change in this economic era make it necessary to understand the role of organizational culture in the change process. Change in the culture happens either as a result of shifts in the value system of the organization, or of planned and intended interventions implemented by leaders of the organization (Schein, 1992). One primary point of leverage for effective change is to be found in the organizational values component of the cultural process (Burns, 1978; Heifetz, 1994; Rokeach, 1973; Rost, 1991; Schein, 1992). Writers have argued that an organization's existing or espoused values can exert their influence over organizational planned change efforts (Kanter, Stein, & Jick, 1992; Trice & Beyer, 1991). If a change process is to focus on values, the first consideration must be how the intervention will affect other organizational variables, such as structure and systems, and what is required to align the intended change with the culture and strategic process of the organization. The contingency perspectives of
organizational change also suggest that change—as well as the change process itself—must reflect people's needs and values if they are to accept and institute them (Nadler, 1981).

Many researchers and writers have recognized the important role values play in organizational change (Burns, 1978; Deal & Kennedy, 1982; England, 1967; Gordon, 1976; Rokeach, 1973; Sashkin & Fulmer, 1985; Schein, 1992). Despite the fact that the term values is used in a variety of disciplines and no consensus exists concerning what constitutes a value, most theorists agree that values are relatively enduring standards that guide action (Kilmann, 1981; Kluckhohn, 1951; Rokeach, 1968, 1973). In organizations, values represent core beliefs about what should be done. Rokeach (1973) defines a value as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (p. 5). Since values are related to modes of behavior, individuals are able to predict the behavior of those with whom they share values (Kluckhohn, 1951). Also, individuals who share congruent values will have greater agreement about what behaviors are important in the workplace (Schein, 1992).

In a study of value congruence between coworkers in an industrial setting, Adkins, Ravlin, and Meglino (1996) presented findings suggesting that coworker value congruence does facilitate interpersonal dimensions of performance. Other results indicated that value congruence enhances communication, leads to increased satisfaction, and facilitates the development of shared understandings in groups. Ravlin
and Meglino (1987) found that work values had a significant impact on how employees interpreted environmental stimuli. They concluded that employees with congruent values place similar interpretations on events in their immediate work environment. Such shared perceptions could minimize or eliminate sources of disagreement, conflict, and resistance and further facilitate their collaboration. Finally, in reporting on strategies for planned change, Zaltman and Duncan (1977) identified the following change agent “errors”: not fully understanding the employee’s abilities to adopt and implement change; not communicating the nature and relevance of the advocated change; and being disdainful of employee’s social milieu, including their shared values and norms.

It has been shown that values play a key role in the organizational change process. Values have also been linked to organizational culture and leadership. Schein (1992) conceived of organizational culture as consisting of three levels or degrees to which cultural phenomena are visible: artifacts, values, and assumptions. Schein asserts that all group learning ultimately reflects someone’s original values. Leaders can influence a group to adopt a certain method for solving a problem or to implement a strategy based on a certain belief. If the leader is able to convince the group to act on his or her belief and if the solution is effective and perceived to be successful by the group, then the perception starts a process of cognitive transformation. The perception first becomes a group’s shared value or belief and ultimately is transformed into a shared assumption. Schein (1992) explains that values become powerful organizational culture factors when they are socially validated. Values
are validated or confirmed by shared social experiences of the group and by leaders who communicate, transmit, and personify the values. Consequently, contemporary researchers and scholars have recognized the need to address the concepts of organizational change and organizational culture simultaneously.

In his definition of leadership, Heifetz (1994) underscores the importance of values and learning by seeing leadership in terms of adaptive work:

Every time we face a conflict among competing values, or encounter a gap between our shared values and the way we live, we face the need to learn new ways. Leadership, seen in this light, requires a learning strategy. A leader has to engage people in facing the challenge, adjusting the values, changing perspectives, and developing new habits of behavior. (pp. 275–276)

Heifetz points out that values are a significant part of the equation for the human species. He links leadership, culture, and change by stressing that leadership in situations of adaptive work will require the ability to provoke new learning and to assimilate new values. Drawing upon his anthropological and consultancy experience, O'Toole (1985) identified and articulated dominant "vanguard" values that suffuse corporate cultures in most American organizations, which include economizing, efficiency, growth, and productivity. He also provides a checklist of general criteria for effective culture change: (a) change builds on the current culture, (b) change requires involvement at all levels, (c) change is systemic in scope, (d) change is planned long term, (e) change is stakeholder oriented, and (f) change has visible commitment from management.
Argyris (1980) adopted a learning metaphor to describe the phenomenon of change. He states that organizational learning occurs whenever a mismatch is detected and corrected by an organization. This learning model is based on the basic assumptions of systems theory. Using systems theory, Argyris addressed two types of learning: single loop and double loop learning. Single loop learning occurs when a mismatch is corrected without having to question or reformulate organizational assumptions. Double loop learning occurs when a mismatch is corrected and changes are made concerning basic organizational assumptions. Senge (1990) confirms this in his concept of the "learning organization" which continually seeks to expand its capacity to create its future by making a differentiation between adaptive and generative learning.

For such an organization, it is not enough merely to survive. "Survival learning" or what is more often termed "adaptive learning" is important—indeed it is necessary. But for a learning organization, "adaptive learning" must be joined by "generative learning," learning that enhances our capacity to create. (p. 14)

Warren Bennis and Burt Nanus (1985) state that leaders create culture, culture creates meaning, and that leadership is managing meaning. They refer to leaders as "social architects" and suggest that in this role, leaders must shape the social architecture and empower the social community. Leaders, they suggest, must choose purposes and visions that are based on the key values of the work force. Bennis and Nanus further claim that change occurs in two primary ways: through "trust and truth" and through "dissent and conflict." Positive change requires trust and truth. Bennis and Nanus offer the following tools for
the social architect: (a) create a new and compelling vision of a future state, (b) develop commitment and mobilize people through communication, and (c) institutionalize the new vision. Similarly, James MacGregor Burns (1978) concluded that “the ultimate test of leadership is the realization of intended, real change that meets the people’s enduring needs” (p. 461). Burns specifically defines leadership as an influence process in which leaders induce followers to act for certain goals and objectives that represent the values of both leaders and followers. He states that “the genius of leadership lies in the manner in which leaders see and act on their own and their followers’ values and motivations” (p. 19).

Kouzes and Posner (1987) point out that contemporary leaders do not try to push people to change, but rather try to move with the natural diffusion process. The natural value and drive for autonomy in people is what the leader should be trying to tap. They recognize that change and innovation are more easily understood and adopted if they are seen as compatible with currently accepted values and norms. However, they warn that if leaders’ behavior is not consistent with espoused values and beliefs, people sense that the values have been violated and ultimately lose regard for values and lose respect for leaders. In their book *The Leadership Challenge*, Kouzes and Posner (1987) offer five fundamental leadership practices that enable organizations to change and attain extraordinary results: (1) challenge the process, (2) inspire a shared vision, (3) enable others to act, (4) model the way, and (5) encourage the heart.
Peter Senge (1990) describes organizational change in terms of the "evolution of the organizational intelligence." His theory of the "learning organization" is directly opposed to the theory of the "controlling organization." He states that rather than pushing harder to overcome resistance to change, leaders should discern the source of resistance and focus directly on the implicit organizational norms associated with the resistance. Senge's concepts question the common assumption that employees have "negative attitudes." This implies that behind every so-called "bad" attitude is a good value representing a legitimate but unfulfilled need or aspiration. Senge posits that core values should answer the question, "How do we want to act, consistent with our mission, along the path toward achieving our vision?" He goes on to state that a company's values describe how a company wants life to be on a day-to-day basis, while pursuing its vision (p. 224). His five disciplines of a learning organization are as follows: Personal Mastery, Mental Models, Shared Vision, Team Learning, and Systems Thinking. Regarding the issue of change, Senge states that to change, an organization must learn. Moreover, organizations must learn "how to learn." Learning must also be continuous in nature. It is no longer possible to rely on learning by adaptation alone. In the same way, organizations will no longer be able to compete and survive by only adapting to change. Senge underscores the fact that learning is change. He asserts that organizations must develop the generative learning ability, in order to develop their capacity to generate change.
After their study of change efforts in the U.S., Sweden, and Canada, based on socio-technical systems concepts and principles, Kolodny and Stjernberg (1986) developed a model of change that identified three subsystems—legitimization, design, and work. The authors described the effects of values on philosophy and organization change. Their model identifies values as the driving force behind an organization's move toward a new operating philosophy. They assert that change does not come about simply through the desire to establish a new work culture, but is the result of a deeply embedded set of organizational values. Kolodny and Stjernberg cite various examples of such shared values: a desire to improve union-management relations; recognizing the importance of changing the culture with attendant changes in the expectations of the employees; a need to compete more productively; a desire to rethink the roles and responsibilities of people in the organization; and the belief that new values lead eventually to high commitment, system viability, and improved system performance. Their change model incorporates feedback and learning loops, and emphasizes the critical importance of converting values into new work cultures.

In a longitudinal study of values in a broad cross-section of both private and nonprofit organizations, Kabanoff and Holt (1996) presented findings suggesting that along with organizational change there was clear evidence of stability in the values that many organizations espoused. They reported results that indicated almost half of the organizations studied retained the same value structure over the research period from 1986 through 1990. Types of organizational
changes in the research sample included change in the fundamental mission, change in the business strategy, change in corporate goals and objectives, technological change, organizational design change, and changes in employee involvement initiatives. The researchers hypothesized that organizations attune their adoption of new values to existing values by adopting compensatory values to balance their values orientation, but do not altogether abandon their dominant value orientation. In support of this notion, Kanter, Stein, and Jick (1992) and Trice and Beyer (1991) have asserted that an organization's existing values have a potent influence upon the kinds of changes in values that occur in organizations, and that current values will exert their influence over organizational change.

In concluding their discussion, Kabanoff and Holt (1996) predict that in organizations that follow the attunement hypothesis, change processes will be described as more effective and successful than in those that fail to follow their prescribed attunement pattern. Their observation suggests that when organizations confront challenging environments, they need not (and probably should not) renew all of their values. Reaffirming existing values to reestablish their legitimacy, and concurrently adopting new values to attune them with the dominant value orientation will result in effective organizational change. The researchers point out however, that this does not imply radical organizational change is always ineffective—only that espousing a new set of values that are quite foreign to the organization's initial value
orientation can lead to a change effort perceived as unfeasible which results in an unsuccessful organizational change effort.

The next section will address the concept of planned change and review various planned change intervention models, including work system and total quality work system change.

**Planned Change Models**

Planned change initiatives are implemented with the intent of changing the character of an organization and significantly improving its performance by fundamentally changing key aspects of the organizational system as delineated by open systems theory (Katz & Kahn, 1978). Changing an organization's character will necessitate changes in its design as well as its processes (Mohrman, Mohrman, Ledford, Cummings, & Lawler, 1989). Design features include strategy, structure, socio-technical factors, information systems, and human resource systems. Process features include communication, participation, cooperation, decision making, and behavior. In studying a number of large scale change efforts, Mohrman et al. (1989) suggest that design changes such as shuffling departments and reporting relationships, or process changes such as team building which are not supported by changes in actual behavior cannot be expected to last and hence, cannot be considered organizational change. These authors argue that “change is an ongoing process, not something that is periodically done to an organization” (p. 274). In a rapidly changing environment, organizations
must adopt an approach of ongoing learning and redesign rather than a static approach to change (Cummings & Mohrman, 1987).

Cummings and Mohrman (1987) cite the organizational restructuring approach coined “re-engineering” by Hammer and Champy (1993) as one such example of static design change. Re-engineering is described as a top-down approach involving the regrouping of functions and product lines, downsizing, and the elimination of hierarchical layers. One example cited by Cummings and Mohrman of a process change is the implementation of total quality and continuous improvement processes that foster innovation (Kanter, 1983). Examination of these design and process efforts indicate that unless they are supported by a change in management paradigm, the bureaucracy will be impervious to attempts to change it. It appears that the processes of change must be woven tightly into the fabric of the organization (Mohrman & Lawler, 1988)—a phenomenon Kotter (1996) refers to as “anchoring change” (p. 14) in the organizational culture.

Various change models have been designed and offered as tools for diagnosing, implementing, and evaluating planned organizational change. Predicated upon the assumption that change is inevitable, and on the insight that survival demands that organizations learn to adapt, certain change models have been formulated based on ethnographic research (Peters & Waterman, 1982), principles and pragmatics (Egan, 1988a, 1988b), open systems theory (Beckhard & Harris, 1987), strategic management (Tichy, 1982), and transactional and transformational leadership dynamics (Burke & Litwin, 1992).
Peters and Waterman (1982) studied 43 organizations and isolated eight attributes that they claim contribute to organizational success. The critical attributes of excellent companies were found to be the following: (1) a bias for action; (2) close to the customer; (3) autonomy and entrepreneurship; (4) productivity through people; (5) hands-on, value driven; (6) stick to the knitting; (7) simple form, lean staff; and (8) simultaneous loose-tight properties. Peters and Waterman refer to the eight attributes as strategies that characterize excellent companies. These eight characteristics, which refer to global patterns of behavior and action, are proposed to produce excellent performance and productivity results. Sashkin (1991) explains that depending on the environmental circumstances, any or all of the eight strategies may be appropriate for the organization. However, Sashkin claims that it is the organization's values that determine which of the strategies will be followed and even permit an organization to follow different and somewhat contradictory strategies at different times. His point is that although strategies may change, values do not. He therefore suggests that a more fundamental contribution of Peters and Waterman (1982) is their analysis of the basic values that shape an organizational culture to engage in overt patterns of action related to success and excellence. Sashkin has defined “excellence” in terms of the following values implicit and explicit in the 10 values and beliefs identified by Peters and Waterman (1982): (1) a belief in the importance of enjoying one's work, (2) a belief in being the best, (3) a belief that people should be innovators and take risks, (4) a belief in the importance of attending to details, (5) a
belief in the importance of people as individuals, (6) a belief in producing superior quality and service, (7) a belief in the importance of informal communications, (8) a belief in the importance of economic growth and profit, (9) a belief in the importance of “hands-on” management, and (10) a belief in the importance of an overarching organizational philosophy.

According to Gerard Egan (1988a, 1988b), many change models that describe excellence in companies do not explain how to incorporate excellence into the system. Egan’s models attempt to deal with system design and assessment. Egan introduced what he calls Model A for assessing and designing excellence into a system, and Model B for the management of organizational change. Egan differentiates between Model A, which focuses on business dimensions, and Model B, which focuses on organizational dimensions. He believes that a comprehensive framework of change is necessary to systematically assess and design excellence into organizations, and that each organization must use the principles suggested in the model. Model A consists of four basic elements: (1) business dimensions, (2) organizational dimensions, (3) management and leadership, and (4) managing the “shadow” side of the organization. Model B consists of three deceptively simple stages: stage one—assess the current scenario, stage two—create a preferred scenario, and stage three—design a plan to move the system from the current to the preferred scenario. Egan underscores the importance of a change model framework or template of organizational effectiveness to systematically identify weaknesses and opportunities, uncover blind spots, and locate leverage points for change. Egan states that
organizations expend a great deal of energy and effort on change that does not produce desired or required results. He further suggests that managers and leaders are unable to manage change well because they do not rely on change models for managing the change process and do not have a clear understanding of the theories and principles related to organizational change.

From an open-systems organizational perspective, change implies turbulence in the external environment with corresponding increases in internal instability. In response to this dynamic, Beckhard and Harris (1987) portray change in terms of a change-stability dilemma and posit that several elements including "a vision of the future" and "a sense of purpose" are essential in order to balance this change-stability dilemma. They also propose that managing change is a task of managing various demands generated by multiple constituencies inside and outside the organization. The researchers state that in order for organizations to adapt to their environment, leadership must develop a strong understanding of the following: the nature of the work, the nature of the organizational culture, the principles of organizational culture change, the effects of human values on organizational performance and effectiveness, and the philosophy and technology for effectively managing the change-stability dilemma. According to Beckhard and Harris, leading change is both science and art, and successful change initially emerges from a seven-phase diagnostic process, which they refer to as the Open Systems Planning Model. This organizational change process model consists of the following phases: (1) determine the
organization's core mission, (2) chart and prioritize demands according to the mission and objectives, (3) determine the organizational response for each demand, (4) project future organizational demands, (5) determine the future state of the organization, (6) determine the steps to achieve desired state, and (7) analyze the cost effectiveness of step 6.

Noel Tichy (1982) categorized the forces that exert pressures for change on organizations into three management areas: technical, political, and cultural. The technical pressures for change relate to the technological and economic changes. The political pressures for change relate to the issues associated with power, influence, and the allocation of resources. Finally, the cultural pressures for change relate to the values and beliefs of people. These pressures are systemic, and Tichy believes that success during dynamic conditions requires their strategic alignment to simultaneously strengthen the technical, political, and cultural systems. He proposes that managers have three fundamental tools to align and strengthen the technical, political, and cultural systems: (1) mission and strategy, (2) organizational structure, and (3) human resources. Tichy's Strategic Management Change Model combines the three strategic areas and the three fundamental tools to create a nine-cell strategic management matrix in which each cell identifies and specifies a series of related issues that managers must address when attempting planned change.

Burke and Litwin (1992) recognized the need for a planned change model that predicts behavior and performance. Their model of change based on research, theory, and consulting experience is not merely
descriptive; it also deals with cause (organizational conditions) and effect (resultant performance) relationships. Their Causal Model of Organizational Performance and Change (Burke & Litwin, 1992. p. 528) not only serves as a guide for diagnosis but also planned organizational change. The model attempts to specify interrelationships between organizational variables and distinguish between transformational and transactional dynamics in organizational change. Burke and Litwin state that transactional dynamics result in climate change, while transformational dynamics result in culture change. They assert that climate describes the organizational dynamics, and culture provides the theoretical framework for understanding the dynamics. They further argue that it is relatively easy to alter observable behavior—a transactional factor, but quite difficult to alter the underlying unconscious assumptions attached to the behaviors—a transformational factor. Their model implies a linkage or interaction between the transactional factors and the transformational factors. The Causal Model indicates that organizational change stems more from environmental impact with the elements of strategy, leadership, and culture having more influence than the elements of structure, management, and systems. This implies that the communication of a new strategy by leaders would not be sufficient for effective change. Effective cultural change needs to be planned and aligned with strategy and leader behavior. In the causal model, climate is the result of transactions related to issues such as sense of direction, roles and responsibilities, and fairness of rewards. Organizational culture is the underlying
assumptions and values that are difficult to manage, alter, and be realized completely (Schein, 1992). Based on this distinction, Burke and Litwin (1992) propose that instant change in organizational culture is a contradiction in terms.

Distinguishing transformational and transactional thinking about organizations has implications for planning organizational change. Taking a horizontal view, the Causal Model emphasizes that change is either transactional—the fine-tuning of the organization, or transformational—the fundamental change of the organization. Taking a vertical view of the model entails hypothesizing causal effects and assuming that the most influential organizational dimensions for change are external environment, mission and strategy, leadership and culture. However, Burke Litwin conclude that a more integrated view of their model is required. Furthermore, they posit that the difference between climate and culture may be only a function of time. If behavior change precedes any meaningful shift in beliefs and values, possibly the leader affects both climate and culture. The Burke and Litwin Causal Model has direct implications for a leadership-culture-change linkage.

Work System Change

In Chapter I, two challenges were cited to identify the critical causal factors contributing to the phenomenon of change in the postindustrial economic era. The first challenge cited, the quality revolution, refers to the rude awakening of American business in the late 1970s and early 1980s to the fact that the economy had experienced a...
substantial decline in productivity growth (Wolfe, 1985) and markets were being lost to foreign companies (Wantuck, 1989). Using an integrated approach to total quality, a number of Japanese firms began to penetrate U.S. markets (U.S. General Accounting Office [GAO] Report, 1991). Complacency, lack of innovation, and a significant slowing of productivity and quality improvement plagued American firms, making it impossible to meet rising product and service quality standards in the global marketplace (Berry, 1991; Evans & Lindsay, 1993). As a result of the quality revolution, organizations have recognized the strategic importance of quality and total quality management. Many organizations have concluded that effective quality management can improve product and service quality performance, enhance competitive capabilities, and provide strategic advantages in the marketplace. This belief has led to “a flurry of activity” (Business Week, 1992) on the part of many companies, large and small, profit and nonprofit, from all business sectors, to shape and evolve their approaches to quality management (Anderson et al., 1994). The total quality approach is composed of two related systems: (1) the management system, and (2) the technical system. The management system includes planning, organizing, coordinating, and controlling, as well as human resource activities related to employee involvement and team approaches to problem solving and quality improvement. The technical system involves quality assurance of product design, the design of manufacturing and/or service processes, and control of incoming materials, production, and finished goods (Evans & Lindsay, 1993).
Total quality has been defined by Procter and Gamble as "the unyielding and continually improving effort by everyone in an organization to understand, meet, and exceed the expectations of customers" (Evans & Lindsay, 1993, p. 16). In order to adopt the quality principles and adapt to successfully practice the principles, organizations must rethink assumptions underlying leadership and change, and make fundamental systemic changes in the education of leaders and followers, the definition of roles, and the redesign of work (Delavigne, 1994; Deming, 1986; Grant et al., 1994; Kelly, 1992; Lawler, 1994; Rost, 1991).

The second challenge cited, workplace evolution, is sociopsychological in nature. This challenge of the modern workplace has stimulated interest in the work redesign and employee involvement movement as a means of generating commitment and improving quality and competitiveness (Lawler, 1986; Walton, 1985). This movement has led to a rediscovery of the Socio-Technical Systems (STS) principles originally developed at the Tavistock Institute of Human Relations in London (Trist & Bamforth, 1951). Socio-technical systems theory is predicated upon two fundamental principles: (1) an organization is a combined social-plus-technical system, and (2) the system is open to its environment (Trist, Higgin, Murray, & Pollock, 1963). Socio-technical systems pursue the goal of integrating sociological requirements with technological imperatives to establish "joint optimization" to ensure work systems remain viable in relationship to their changing environments (Cherns, 1976; Manning & Sokoloff, 1990).
One premiere assumption of the socio-technical approach is that people should be viewed as resources (Pasmore, 1995). This is based on the premise that self-direction and teamwork are essential work system elements necessary for the attainment of high levels of quality and superior performance (Deming, 1982, 1986; Garvin, 1987; Juran, 1974, 1989; Lawler, 1986; Ledford, 1992; Poza & Markus, 1980; Walton, 1985). Changes in the contemporary work environment have been stimulated by the education and expectation of employees who desire significant psychological involvement (Sashkin, 1984). This need is recognized by socio-technical systems concepts that take into consideration the most important psychological dimensions of work, including autonomy, meaningfulness, knowledge of results, and social interaction (Cherns, 1976; Hackman & Oldham, 1980; Sashkin, 1984).

The academic and popular press increasingly emphasize the critical importance of teams for improved organizational performance. The use of teams has recently expanded in response to environmental challenges. Gordon (1992) found that 82% of organizations with more than 100 employees reported the use of teams. In a comparative study, 68% of Fortune 1000 companies reported the use of self-directed teams, and 91% reported they used employee participation teams in 1993, as compared to 28% and 70%, respectively, in 1987 (Lawler, Mohrman, & Ledford, 1995). A number of key research findings across industries support employee involvement and participation through work team designs. Rigorous, ongoing studies of team designs have been performed. Research on the impact of self-directed and high performing teams has
shown favorable to strong effects on employee attitudes, job satisfaction, productivity, and quality (Goodman, Devadas, & Griffith-Hughson, 1988; Leana, Ahlbrandt, & Murrell, 1992; Ledford & Mohrman, 1993; Magjuka & Baldwin, 1991).

The environmental and organizational demands cited above have been pressuring organizations to formulate modern strategic initiatives to achieve organizational effectiveness and competitive improvement. Such initiatives are primarily being accomplished through renewal strategies that emphasize improved performance and integration of human and technical systems based on total quality management concepts (TQM) and team-design high performance work systems (HPWS) (Lawler et al., 1995).

In this research, the organization under study adopted TQM and HPWS principles and practices—two postindustrial change movements that share a common theme with the contemporary leadership paradigm of the new economic era—combining them into a comprehensive total quality work system (TQWS), organizational development, and planned change initiative. To understand the organization's TQWS change initiative, a brief introduction to TQM and HPWS follows.

**Total Quality Management**

Total Quality Management (TQM) is fundamentally the product of American quality masters such as W. Edwards Deming (b. 1900), Joseph M. Juran (b. 1904), Philip B. Crosby (b. 1926) and Armand V. Feigenbaum (b. 1922), and the work of the two Japanese quality experts,
Akira Ishikawa (b. 1915) and Genichi Taguchi (b. 1924) (Brocka & Brocka, 1992). These quality "gurus" are most often identified with the total quality management movement, with Deming (1986) being highly favored by many quality professionals because of his comprehensive philosophy prescribing teamwork, training, process improvement, and leadership for the transformation of traditional management practices (Aguayo, 1990; Brocka & Brocka, 1992; Gabor, 1990; Sosik & Dionne, 1997; Tamini, Gershon, & Currall, 1995; Walton, 1985). TQM is now recognized as a legitimate and bona fide contemporary management approach which incorporates a specific set of statistical quality tools and analytical techniques to achieve process control (stability and capability) and continuous process improvement (design and performance), with a philosophy consisting of principles and practices related to organizational change (Lawler, 1994; U.S. GAO Report, 1991).

As a management approach, TQM is based on the Japanese concept of Total Quality Control. The premiere statistical principles that form the basis for TQM were developed by Shewhart (1931), popularized by a number of quality pioneers (Crosby, 1979; Deming, 1986; Juran, 1989), and integrated into organizational development models. TQM has been described as a philosophy and a set of principles for continuously improving performance at every level of operation, in every functional area of an organization, using all available human and capital resources (Brocka & Brocka, 1992). TQM is essentially an integrated human-oriented systems approach to managing that has come to be recognized as a full-fledged contemporary global management philosophy. Deming
(1986), who believed that Western style of management worked against the immutable laws of statistical variation and de-humanized organizations, proposed his Fourteen Points for the transformation of American industry. Deming's model, which includes constancy of purpose, adopt a new philosophy, continuous improvement of processes, leadership, training and education, and total participation, calls for inclusive involvement because of the interdependent nature of organizations. Deming's theory of management and leadership is considered an effective and practical way to initiate institutional transformation for the 21st century (Anderson et al., 1994; Steel & Jennings, 1992).

The total quality management approach includes the following themes: top management commitment to total quality; contemporary leadership; continuous improvement of people and processes; cooperation, collaboration, and teamwork; total employee involvement; involving external suppliers and customers in the improvement process; and the use of scientific and statistical problem solving techniques (Brocka & Brocka, 1992; Waldman, 1993). As American business adapts to the postindustrial age, organizations are consciously reevaluating the traditional way of operating and experimenting with new approaches in work designs to transform their work cultures (Lawler, 1994; Lawler et al., 1995; Walton, 1985). One alternative that builds on the total quality concepts and "involves people throughout the organization in the business of the organization" (Lawler, 1992, p. 4) is the high involvement approach.
High Performance Work Systems

High involvement or high performance work systems (HPWS) emphasize employee involvement as the ideal approach to creating innovative, competitive, and adaptive work organizations (Fisher, 1989; Harris, 1989; Lawler et al., 1995; Obloj, Cushman, & Kozminski, 1995). Organizations that have attained a level of high involvement have been described by various authors as "self-regulating" (Cummings, 1978), "commitment based" (Walton, 1985), "high involvement" (Lawler, 1986), and "high performance" (Fisher & Rayner, 1984; Lawler et al., 1995). Rayner (1989) has described common traits of a high performance work system. Some of the characteristics include customer orientation, technical excellence, shared values, shared goals, mutual trust, reward systems, and team autonomy. Walton (1985) suggests that it is the creation of a supportive and challenging environment that enables employee commitment to flourish and lead to enhanced performance in a high involvement work system. Sashkin (1984) further suggests that participation increases employee performance because it fulfills three basic human needs: autonomy—the need for self-direction, meaningfulness—the need to accomplish something significant, and involvement—the need to belong and contribute.

Planned change initiatives for organizational adaptation and renewal have employed total quality management principles and high performance team concepts separately and in tandem because each complements one another (Lawler et al., 1995). Recently, renewal
strategies predicated solely upon economic and financial pressures have also been attempted simply through "radical re-engineering," "downsizing," and "restructuring" by many organizations to realize immediate improvements (Bartlett & Ghoshal, 1995; Cooper & Markus, 1995; Hammer, 1996; Hammer & Champy, 1993). However, without the reconceptualization of leadership, and a transformation of organizational culture, these initiatives often do not produce desired change and prove to be counterproductive (Bartlett & Ghoshal, 1995; Bennis & Mische, 1995; Burke, 1997; Champy, 1995; Cooper & Markus, 1995; Covey, 1991; Deming, 1986; DePree, 1989; Kelly, 1992; Lawler, 1986, 1988; Schneider, 1994; Tjovold, 1995; Walton, 1985). Furthermore, these "radical" change strategies not only negate beneficial effects of total quality practices, they also destroy employee morale and mutual trust (Mishra, Spreitzer, & Mishra, 1998).

It has become clear that an organizational development initiative such as TQM requires a totally involved and empowered work force. An ideal way to institutionalize the principles and practices of TQM is through a High Performance Work System based on team concepts and employee empowerment. Referred to as the second industrial revolution, self-directed total quality work systems make companies act more like big family farms than hierarchical bureaucracies. People work in flexible teams and cross-functional teams instead of rigid functional departments and are responsible for tasks and processes traditionally reserved for management (Fisher, 1993). These teams are now being viewed as the next stage of quality circles and as a vehicle for the implementation of
the total quality principles and the continuous improvement philosophy. Interestingly, HPWS’s take a step backward in time to an era when there was a greater degree of individual responsibility, commitment, and ownership in work (Piczak & Hauser, 1996). Like the postindustrial reconceptualization of leadership, both TQM and HPWS require profound shifts in paradigms and a metamorphosis in mental models. Examples are the following:

1. To understand HPWS’s and ensure teams can be successful, management must shift from the control paradigm of organizations to the commitment paradigm (Lawler, 1986; Walton, 1985).

2. In order to develop the profound knowledge necessary for implementing TQM, management must shift from a production focus to a quality focus, discard the notion that quality and productivity are conflicting objectives, and embrace the fact that quality leads to productivity (Covey, 1991; Deming, 1986).

3. Our industrial leader-centric paradigm of leadership must be abandoned in favor of the postindustrial relationship-centered paradigm to create the contemporary leadership culture required to support TQM and HPWS change efforts (Barker, 1995; Rost, 1991).

**Total Quality Work Systems**

The reconceptualization of organizations as socio-technical systems stimulated the evolution from classical bureaucratic management approaches (Taylor, 1911; Weber, 1924/1947) to the contemporary open-systems approaches (Burns & Stalker, 1961; Katz &
Kahn, 1978; Trist et al., 1963). The human relations movement (Argyris, 1957; Likert, 1961, 1967; Maslow, 1965; Mayo, 1933; McGregor, 1960) focused on the human and social factors by considering individual motives, goals, and aspirations as well as group processes and organizational change. Now it is recognized that participation and involvement are necessary components of effective organizations (Bass, 1960; Coch & French, 1948; Lawler, 1986; Likert, 1967; Peters & Waterman, 1982; Sashkin, 1984; Tichy & Devanna, 1986). Total quality work systems (TQWS), grounded in the total quality management and high performance work system principles, generate employee participation by establishing a supportive and challenging environment, and by tapping into people's higher level needs and values (Bennis & Nanus, 1985; Burns, 1978; Lawler et al., 1995; Maslow, 1954; Schein, 1992). In a TQWS environment requiring a flexible and empowered workforce, teams are the fundamental operating unit and are considered the basic building blocks of the organization (Fisher, 1993; Lawler et al., 1995; Vaill, 1982). In the present study, it is argued that the efficacy of a total quality work system (TQWS) change initiative is dependent on the reconceptualization of leadership for the 21st century (Heifetz, 1994; Rost, 1991; Wheatley, 1992). It is further argued that the relationship between leadership and organizational culture can best be understood by investigating, identifying, and describing the leadership-culture-change dynamic (Kotter, 1996; Kotter & Heskett, 1992; Schein, 1992).
Participation and Empowerment

Total Quality Management and High Performance Work Systems are dependent upon the degree to which employees are meaningfully involved and empowered to significantly participate in the organization. Participative management is not a simplistic, mechanistic technique, nor is it solely based on leader style. Participation is not merely giving workers some special attention that makes them feel they are important and involved, (Katz & Kahn, 1978). Participation is both a management philosophy and a business strategy that considers employees “partners” in problem solving and decision making (Kouzes & Posner, 1987).

Participation is a form of employee involvement that takes on many forms. Lawler (1986) has classified participative programs into seven categories: quality circles, employee survey feedback, job enrichment, work teams, union-management committees, gainsharing, and new-design plants. Each type of involvement program requires contemporary leadership practices based on leader-follower collaboration and self-direction. In a study of teams, Manz and Sims (1987) found correlations with overall leadership effectiveness ratings indicating that the team leader's most important behaviors were those that facilitated team self-management through self-observation, self-evaluation, and self-reinforcement. Their research discounts the belief that teams can be made effective simply by providing teams with team leaders who possess the right leader style.
Empowerment, an emerging construct is a form of employee involvement recognized as a principal component of organizational effectiveness (Bennis & Nanus, 1985; Burke, 1986; Conger & Kanungo, 1988b; Spreitzer, 1995). Related to "participation," empowerment also suggests "enabling," which implies motivation through enhancing personal efficacy. Empowerment has been defined as "a process of enhancing feelings of self-efficacy among organizational members through the identification and elimination of conditions that foster powerlessness by both formal organizational practices and informal techniques of providing efficacy information" (Conger & Kanungo, 1988b). Some of the contextual factors necessary for empowerment are decentralization, de-bureaucratization, competency based rewards, role clarity, meaningful goals, and contemporary leadership practices, such as expressing confidence in people, establishing high performance expectations, and providing autonomy (Conger & Kanungo, 1988b). Therefore, the success of high involvement work teams depends on contemporary leadership approaches and support systems that are quite different from traditional methods of managing.

Total Quality Work System Change

The increasing rate of change in technology, competition, information, and individual needs and expectations has placed a premium on an organization's ability to change (Beer, 1976). Organizational change is sweeping the United States, Canada, and companies in countless areas of the global marketplace (Burack, Burack,
This new economic era contains common themes that have helped organizations adjust to the unique economic and competitive environments in which they operate. Organizations such as General Electric and Hewlett Packard have exploited these themes to enhance and improve productivity, employee participation, and performance (Burack et al., 1994). These themes are referred to as “total quality” and consist of the concepts of continuous improvement and high performance (Dobbins & Zaccaro, 1986; Lawler, 1986; Lawler et al., 1995). Total quality work system organizations have drawn upon new paradigm elements such as clear, focused, and shared vision; participative management; employee involvement; and an adaptive learning environment to transform the roles of millions of American workers (Malcolm Baldrige National Quality Award, 1991 Application Guidelines, 1990; Naisbitt & Aburdene, 1985; U.S. GAO Report, 1991).

The Center for Effective Organizations (CEO) at the University of Southern California defines a high performing work system as one in which combines principles of employee involvement, participative management, and total quality management (Lawler et al., 1995). Participative management and employee involvement are key to a new era of leader and follower roles and relationships. Participation and involvement have been called the building blocks of high commitment and performance organizations (Fisher, 1989). Total quality principles and practices are essential for participative management and employee involvement to succeed (Deming, 1986; Garvin, 1987; Grant et al., 1994; Juran, 1989). It has been shown that when these strategies are applied,
the organization and its members reach higher levels of commitment and achievement (Lawler, 1992; Meyer & Allen, 1987). The new paradigm or total quality and high performance approaches share three fundamental elements necessary for work system change: building shared beliefs and values, moving from short-range to long-term thinking, and the implementation of quality principles based on the precepts of W. Edwards Deming (1986) and other quality experts.

In 1995, Lawler, Mohrman, and Ledford reported the findings of their longitudinal study that systematically researched the adoption and impact of total quality management and employee involvement practices in 1,000 of the largest companies in the United States. Their findings showed broad adoption (75%) of total quality work system programs with generally high levels of satisfaction reported (83%) with the programs. Over half of the companies use an integrated approach to change by linking total quality, high performance, and work redesign principles based on STS. Overall, the results strongly suggest that as organizations increase their use of total quality work system management practices, they realize increased positive results from their employee involvement change efforts.

Lawler et al. (1995) report that overall use of total quality work system practices is significantly related to measures of corporate performance. Their outcome measures include productivity, sales per employee, return on sales, return on assets, return on investment, and return on equity. The researchers point out that their findings of significant relationships suggest there may be a causal relationship
between adoption of total quality work system practices and performance. This proposition is supported by other studies that have examined the effects of total quality management and employee involvement practices on performance. Denison (1990) studied 34 companies and found that firms with more participative cultures realize higher return on investment and return on sales. Hansen and Wernerfelt (1989) reported their findings from a study of 60 companies that a participative culture is related to return on assets.

**Planned Change Failures**

The literature on organizational change contains many examples and case studies of change efforts that failed to produce intended results. The following section will provide a broad overview of the reasons and causes of planned change failures as proposed by various researchers.

In *The Change Riders*, Kissler (1991) argues that the absence of a logical sequence of events is a major flaw in many organizational change initiatives. He states, however, that the availability of good models and methodologies can no longer be used as the excuse for poor management practices related to organizational change.

Beer et al. (1990b) argue that in general terms, planned change initiatives are often based upon a popular “management fad” and reduced to a “top-down program” implemented without a proper diagnosis of the strategic problems facing the company. Specifically, the main cause of failure is that managers misunderstand how to bring about change. Two dominant faulty assumptions shared by many
managers are (1) that promulgating "corporate culture" programs will fundamentally transform an organization, and (2) that altering the formal structure will successfully change employee behavior. In their 4-year study of six large corporations, the authors found the greatest obstacle to organizational change and coined it "the fallacy of programmatic change" (p. 159). They propose, "Most change programs don't work because they are guided by a theory of change that is fundamentally flawed" (p. 159), because they begin with attempting to change people's attitudes. With much effort and energy initially focused on people's attitudes, managers and change agents inevitably ignore the importance of defining leader's and follower's roles, fail to create an organizational climate for change, and do not learn how to elicit change from people without imposing it upon them.

In a case study of a manufacturing company implementing a comprehensive change initiative, Roitman, Liker, and Roskies (1988) presented lessons learned from their research. Basically, this study illustrates the negative consequences of implementing radical innovation. The authors point out that the company chose a "radical" versus an "incremental" approach to planned change, yet did not address the issues of the pace and the amount of change (Lawler, 1986). The researchers referred to this faulty approach as an "all at once" approach and cited three major causes for the failure. First, the time frame for the changes was impossibly short and did not allow employees and managers time to learn new skills. Second, the cultural components of the company were not examined nor their interrelationships understood in order to
plan a logical sequence of social system changes. Finally, the third cause was the destructive power of inappropriate symbolic actions on employee morale and trust in management. The researchers strongly warn against the disproportionate destructive power of symbolic events on the foundation of the organizational culture. In short, they argue that organizational culture is easier to destroy than to build.

In a qualitative research study of various planned change projects in which interviews were employed to identify and detail critical events (Nutt, 1984, 1987), Nutt (1992) found that managers often used questionable tactics to carry out planned change initiatives. Failure stemmed from three major sources: (1) imposing ideas and plans, (2) adopting plans prematurely, and (3) using power to implement plans. The cases studied revealed an initial rate of planned change failure of 36%, and by including other qualifications, such as partial change and complete withdrawal from the change effort, the failure rate rose to 50%. Nutt observed that the fundamental problem stemmed from two faulty change management practices: imposing rather than influencing, and using power rather than participation. The researcher concluded that although most managers recalled many such failures, the recall is seldom, if ever, subjected to systematic analysis and evaluation. As a result, spurious associations between events and failures are made, leading managers to continue to practice ill-advised change tactics.

In a large scale study of organizational change, Covin and Kilmann (1990) identified the types of issues that are perceived by participants in planned change efforts to have either highly positive or
highly negative impact on the ultimate success of the change initiative. Responding to two open-ended questions, participants in conferences and workshops over a 3-year period provided over 900 items they believed had an impact on organizational change. Of the items related to having a negative impact on change, eight categories were generated by the researchers. Three categories relate directly to management and leadership: (1) lack of management support, (2) managers imposing changes without stated rationale, and (3) inconsistent actions by managers. Three categories focused on the change process: (1) the purpose of the change effort is not made clear; (2) the change process is poorly communicated; and (3) the change process expectations are unrealistic (e.g., impatience, short-term demands, quick-fix mentality). The final two categories directly addressed the employees: (1) a lack of meaningful participation, and (2) not clearly identifying individual or group roles and responsibilities. This research lends support for other studies and writings seeking to identify essential elements in planned change efforts. For example, Beckhard (1988) identified management commitment, vision, and a conviction that change is necessary. Burke, Clark, and Koopman (1984) note the import of preparing the organization for change, management support and involvement, and realistic expectations. Also, the literature provides substantial evidence to support meaningful and significant employee participation in the change process (Beer, 1976; French & Bell, 1984).

Similarly, in an article entitled "Leading Change: Why Transformation Efforts Fail," Kotter (1995), summarizing his
observations gained from over a decade of experience and study of more than 100 companies, concludes that a few corporate change efforts have been either very successful or utter failures with most falling in between, with a distinct tilt toward the failure end of the scale. Kotter's general observations identify two major lessons to be learned: (1) change processes go through a series of phases requiring a considerable length of time, and (2) critical mistakes must be avoided in any of the phases. He states that skipping steps only creates the illusion of speed and rarely produces a satisfying result. Furthermore, given the fact that leaders have little knowledge and experience in transforming organizations, even very capable leaders make critical mistakes that slow momentum and have a devastating negative impact on the change effort.

Kotter (1996) also outlines specific errors that are prevalent in most organizational change processes. His list of errors includes (a) not establishing a great enough sense of urgency that elicits aggressive cooperation—leaders often underestimate the importance of employee cooperation and overestimate their success in establishing a clear sense of urgency; (b) not creating a critical mass or a powerful guiding coalition—leaders fail to form an initial critical mass to support the change and are unable to create collaborative effort to develop a shared assessment of the organization's problems and opportunities; (c) not having an overarching vision of the future—leaders incorrectly rely on a sense of direction based on complicated and confusing projects that are often incompatible; (d) not removing obstacles to the new vision—obstacles such as narrowly defined roles and responsibilities,
inappropriate compensation and performance appraisal systems, and leaders who refuse to change and who make demands that are inconsistent with the overall change effort can seriously undermine the transformation; and (e) not anchoring changes in the organization’s culture—until the new behaviors are rooted in the shared norms and values of the organizational culture, they will not become institutionalized.

Clearly, change is pervasive and inherent in contemporary organizational experience. It follows that the management and leadership of change is critical to organizational success and survival (Beckhard & Pritchard, 1992; Chandler, 1994; Kanter, Stein, & Jick, 1992; Schein, 1992). In Organizational Culture and Leadership, Edgar Schein (1992) discusses aspects of general change theory that must be understood for leaders to make sense of the change process. Schein observes that the fundamental assumptions underlying any change process in a human system were derived from the work of Kurt Lewin’s (1947) three-phase change model of unfreezing, restructuring, and refreezing. Schein advances the concepts of equilibrium and cognitive structures to explain how a system stabilizes and provides meaning in the face of environmental stimuli. In his research, Schein found that the unfreezing phase is made up of three independent processes: disequilibrium caused by disconfirming data and discomfort, anxiety caused by establishing important goals and ideals, and psychological safety caused by recognizing the possibility of solving problems. In the
absence of these three factors, change will either not occur or be counter-productive.

In elaborating on each of the specific phases of change, Schein (1992) discusses one element often lacking from each phase of the organizational change initiative. With regard to the unfreezing phase, the role of vision is not fully understood and often overlooked. Without a degree of anxiety produced by disconfirming information, a visionary leader is not paid much attention. In other words, visions are only important when people are ready to pay attention to them. When the vision is accepted by the organization, it can then serve to provide the psychological safety for the organization to move forward. With regard to the restructuring phase, the key element ignored by many change efforts is learning through cognitive redefinition. Schein suggests that in most change processes, leaders emphasize behavior change unaware that it is insufficient unless cognitive redefinition of individual core concepts and beliefs occurs. Finally, with respect to the refreezing phase, it is necessary for new behaviors and cognitions to be reinforced. The importance of this phase, overlooked by many leaders, is that reinforcement creates confirming data which gradually stabilizes and institutionalizes the new assumptions. Schein argues that this model of change identifies the necessary psychological conditions that must be present for any organizational change to occur.

Schein (1992) further asserts that change cannot be imposed on people. He points out that leaders lack both culture diagnosis and culture management skills, urging leaders to learn to analyze the
organizational culture in sufficient detail to understand the underlying assumptions that will help or hinder the change, and learn facilitation and intervention skills to make desired changes happen. He concludes by identifying critical roles of leadership necessary for successful change. They include (a) diagnosing organizational culture, (b) creating disconfirming information, (c) providing a compelling vision for psychological safety, (d) learning continuously, (e) managing anxiety, and (f) involving people in the change process.

Finally, in a study to determine the degree of knowledge and understanding regarding key principles in the management of organizational change, Church, Burke, and Waclawski (1996) propose that professionals engaged in change efforts should possess a strong grasp of many different concepts and aspects of contemporary change management. These includes such concepts and principles as (a) understanding the general patterns that describe most change efforts (Beckhard & Harris, 1987; Lewin, 1951; Schein, 1992); (b) building commitment to change through effective use of participation (Beer, 1994; Kanter, 1983; Ledford, 1992); (c) demonstrating strong visionary leadership and a sense of purpose (Bennis & Nanus, 1985); and (d) evaluation of the change effort with respect to its influence on the organizational system (Burke & Litwin, 1992; Katz & Kahn, 1978; Porras, 1979). Although practitioners and professionals struggle with many of these facets of change, Burke et al. (1991) point out that these valuable principles and learnings have been established and documented.
based on theory, research, and applied experience of which change facilitators should be aware.

In their research, the authors used a knowledge-based instrument called the Managing Change Questionnaire (MCQ) (Burke, 1990; Burke & Church, 1992), which is grounded in principles and concepts derived from social psychology, organizational theory, applied research, and consulting experience to measure the degree of knowledge and understanding regarding fundamental contemporary assumptions and principles of organizational change management. The MCQ is a knowledge-based instrument consisting of 25 short true-false questions and has been used in management development programs and large-scale organizational change efforts (Burke & Spenser, 1990; Burke, Spenser, Clark, & Coruzzi, 1991). The MCQ generates six unique subscores corresponding to different areas related to organizational change: (1) the individual’s response to change, (2) the general nature of change, (3) the planning of change, (4) managing the people side of change, (5) managing the organizational side of change, and (6) evaluating the change effort.

Burke et al. (1991) report that previous research with the MCQ collected during training seminars over the course of a number of years has shown the mean score for executives and managers to be approximately 70% correct. Based on the results of their research, they found that managers scored low on the subscale regarding “managing the people side of change,” which deals with concepts of interpersonal and group dynamics of change. Items often scored incorrectly pertained
to understanding the power and utility of affecting change through small group interventions, and that stimulating change through groups is usually more effective than through a one-on-one individual approach. Other items often scored incorrectly identified the following additional concepts and areas where managers and change agents lacked knowledge: (a) understanding the need to modify organizational structure in support of the change effort, (b) surfacing and addressing people's dissatisfaction with the current state, (c) recognizing and engaging people's resistance to the change process, and (d) avoiding attempts to control the change effort. These important studies engaged in by the researchers not only determined how knowledgeable the respondents were with respect to contemporary aspects and issues of organizational change, but have also contributed to the field of management training and development specifically related to transformational leadership.

This section addressed the reasons and causes for planned organizational change failures. From the research, interventions, and learnings referenced above, it is possible to identify the dominant reasons and root causes of many unsuccessful change efforts. Obviously, the dominant reasons relate to the limited knowledge managers and change agents have about contemporary principles and concepts of organizational change. It is also evident that the root causes for change failures are factors related to leadership and organizational culture. These observations have an important implication for organizations—the reasons and causes of ineffective change processes interact to negatively
impact the transformation dynamic. It is proposed that these interactions exert devastating effects on any change effort and severely limit the efficacy of any change model, even one derived from legitimate theory and research. It is also proposed that the converse is true: the efficacy of any change initiative will depend on the degree to which the reasons and causes for change effort failures are eliminated and avoided.

The next section will elaborate on the fourth research question and present the proposed conceptual hypothesis.

Elaboration of Research Question 4 and Conceptual Hypothesis

Research Question 4

Is there a relationship between follower perceived levels of planned change efficacy and their leader's degree of knowledge regarding contemporary change management principles?

In the turbulent business environment of this new economic age, it would seem managers, leaders, and change facilitators need to be knowledgeable and expert in managing organizational change. Burke and Church (1993) call attention to the critical importance of leaders knowing as much as possible about contemporary change, the consequences of significant organizational interventions and the facilitation and management of organizational transformation. Kissler (1991) proposes that while the absence of a logical sequence of action steps is a major flaw in many organizational change initiatives, the availability of good models and methodologies can no longer be used as
the excuse for poor management practices related to organizational change. Although a great deal of contemporary knowledge dealing with the management of change has been accumulated (Burke & Church, 1992), and a variety of legitimate planned change models exist (Beckhard & Harris, 1987; Burke & Litwin, 1992; Egan, 1988a, 1988b; Tichy, 1982), the level of knowledge possessed by managers and change agents remains insufficient (Burke & Church, 1992; Burke et al., 1991). Reports of planned change failures (Beer et al., 1990b; Kissler, 1991; Nutt, 1992) and accounts of mismanaged change interventions (Kotter, 1995; Roitman et al., 1988) including the identification of positive and negative issues impacting change (Covin & Kilmann, 1990) most probably imply an underlying amount of employee frustration with management change programs and certainly a lack of confidence in change models and initiatives. It is speculated that negative employee perceptions regarding the efficacy or effectiveness of a planned change process reflects an overall limited knowledge and skill on the part of managers and leaders to manage contemporary organizational change. It is further proposed that a high degree of knowledge on the part of managers and leaders of contemporary change principles and practices will result in positive employee perceptions regarding the efficacy or effectiveness of a planned change initiative.

Conceptual Hypothesis 4

Regarding the fourth research question stated, the following conceptual hypothesis is proposed: In the research organization
undergoing a planned change effort, the leader's degree of knowledge regarding contemporary concepts and principles of managing organizational change will be an important factor related to follower perceived level of planned change efficacy. The leader's level of contemporary change management knowledge will influence follower's perceptions regarding the efficacy of the planned change initiative.

Leadership and Organizational Culture

The use of the term culture as a reference to the deeper meanings and ideologies of organizations has not been the sole device of our most recent modern insight. Over a half century ago, Barnard (1938) observed that below the conscious level of everyday thought in organizations exists a deeper and more powerful force consisting of basic assumptions, shared beliefs, and behavioral norms. Barnard was instrumental in suggesting the need to give more consideration to behavioral, intuitive, and emotional dimensions when studying organizations. Interestingly, he also advanced the concept that the "authority of leadership" is not necessarily confined to those in administrative or managerial positions. He acknowledged that leadership could be performed or practiced by virtually anyone within an organization—an insight shrouded by more popular and dominant theoretical and empirical perspectives. Many scholars who acknowledged the existence and articulated the importance of organizational culture were influenced by the Human Relations Movement of the 1930s (Barnard, 1938; Mayo, 1933). The concept of organizational culture surfaced in London in the 1950s and 1960s with

Originally, the concept of culture was central to the field of anthropology. During the 1940s and 1950s, researchers contributed a large body of literature to the discipline related to culture. This interest and activity was paralleled in the field of sociology between 1950 and 1970. Although organizational culture studies were undertaken as early as the 1970s (Pettigrew, 1973), it was not until the 1980s that organizational and management scholars began to recognize and adopt the culture construct (Deal & Kennedy, 1982; Ouchi, 1981; Pascale & Athos, 1981; Peters & Waterman, 1982). Edgar Schein (1983, 1985) ambitiously investigated the culture construct and greatly influenced this area of research by articulating his conceptual framework for analyzing and intervening in the culture of organizations. His investigations and insights have produced one of the only comprehensive conceptual models ever developed.

Schein (1992) states that culture is the result of complex group learning processes only partially influenced by leaders. However, he asserts that one of the most critical functions of leaders is the creation, management, and destruction of culture—and that when examined closely, leadership and culture cannot be understood separately. Schein's model of cultural phenomenon consists of three distinct but closely related levels of manifestation: organizational artifacts, espoused values, and underlying assumptions (Schein, 1992, p.17). These concepts represent a hierarchy of levels at which organizational culture manifests.
itself. The artifactual level includes all the phenomena that can be seen, heard, and felt, including visible group behaviors and organizational processes. Artifacts are easy to observe yet difficult to decipher. The espoused values level include strategies, goals, and beliefs that reflect a sense of what is important. If actions based on espoused values are successful, the group develops a shared value orientation. Values will predict much of the behavior observed at the artifactual level. The underlying assumption level consists of the essence of the culture: basic assumptions that are taken for granted, invisible, and operate out of consciousness. Underlying assumptions are unconsciously shared and therefore mutually reinforced and difficult to change. Schein (1992) emphasizes the importance of understanding that artifacts are easy to observe but difficult to decipher, that espoused values may only reflect intentions or aspirations, and that underlying assumptions are the ultimate source of values and actions.

Building on the research and theory of Schein (1992), the Bath Consulting Group developed a model of the five levels of organizational culture (Hawkins, 1997). The levels are identified and defined as follows: Level 1: Artifacts—policy statements, mission statements, dress code, furnishings; Level 2: Behavior—actions, communications, what is rewarded, how conflicts are resolved; Level 3: Mindset—organizational world view, ways of thinking, values-in-use, basic assumptions; Level 4: Emotional Ground—unconscious emotional states and needs that create the perceptual context; and Level 5: Motivational Roots—underlying sense of purpose that links individuals and organizations. The Bath
model has been used to predict organizational problems and difficulties when a gap exists between rhetoric and reality. Kotter and Heskett (1992) have also advanced an organizational culture model consisting of two levels which differ in terms of their visibility and resistance to change efforts. The invisible, harder to change level is made up of beliefs and values reflecting important concerns and goals shared by a group. The visible, easier to change level is made up of group behavioral norms which consist of common and pervasive ways of acting. Kotter and Heskett point out that each level of culture has the natural tendency to influence and impact the other. Organizational culture models imply that diagnosis is required to understand the culture by analyzing and interpreting the levels of culture. Schneider (1994) argues that the reason many business change efforts fail is that the change initiative assumes all organizations have the same culture.

Due to empirical findings, theoretical foundations and implicit conceptual relationships, a relationship has been suggested between organizational culture and leadership. The relationship has been recognized by culture researchers who regard leadership as an important input factor in the construction and determination of culture. Schein (1992) claims that leaders are in the business of creating and managing cultures within organizations. On the other hand, leadership researchers have also regarded culture as an important situational factor affecting the process of leadership. However, despite the awareness of this conceptual linkage, little research has been pursued to investigate the causal relationships between leadership and culture. Knowing that
environmental forces are constantly challenging organizations to adapt, and the fact that our postindustrial era demands a paradigmatic shift in our concept of leadership, it is essential that we focus on specifying the theoretical linkages of these constructs and performing empirical research to investigate their relationships.

Organizational culture has been described in various ways: as a shared learned pattern of behavior transmitted from one generation to the next (Deal & Kennedy, 1982), as a philosophy that guides an organization (Ouchi, 1981), and in terms of the rules of the game for getting along in the organization expressed by “the way we do things around here” (Burke & Litwin, 1992, p. 533). Kouzes and Posner (1987) underscored the importance of the leader in transmitting the organization’s culture and values. Deal and Kennedy (1982) referred to leaders in organizations as the “priests” who maintain, watch over, and are transmitters of the values in the culture. Bass (1985) suggested that transactional leaders work within their organizational culture, and transformational leaders work to change their organizational cultures. Tichy and Ulrich (1984) described the transformational leader as one who understands and realigns the organizational culture in order to provide meaning. Such leaders, with a sense of vision, create cultures based on positive assumptions of people (Kiefer & Senge, 1984).

Bolman and Deal (1991) point out that different views exist regarding the relationship between culture and leadership. They state: “Some argue that leaders are shaped by culture, while others believe that, at least under some condition, leaders can shape culture” (p. 268).
Bolman and Deal also address the issues of culture and performance. They question whether strong cultures lead to higher levels of performance, or whether strong cultures result from organizational success. They speculate that strong cultures produce better performance only if the culture patterns and values fit the demands of the environment.

Leadership has been viewed as a form of cultural expression lending more importance to what leaders believe, value, and communicate to others than to their personality style (Sergiovanni, 1984). Leadership antecedents such as assumptions and beliefs determine reality, guide action, and are considered sense-making aspects of leadership which represent the more enduring value of leadership. Bennis (1983) expresses the leadership-culture relationship by describing transforming leadership as vision, purpose, beliefs, and values—all aspects of organizational culture that are of significant importance. Bennis has identified a common set of competencies transforming leaders must possess to be capable of changing organizational culture by translating intention into reality: (a) the capacity to create and communicate a compelling vision, (b) the capacity to align people with the vision, (c) the capacity to maintain consistent focus, (d) the capacity to create empowered environments, and (e) the capacity to lead continuous organizational learning.

Pfeffer (1981) asserts that the symbolic role of leaders in organizational culture includes espousing values, influencing sense-making, and acting to change beliefs about the best way to accomplish
goals. A model of cultural leadership developed by Trice and Beyer (1991, 1993) emphasizes cultural innovation by creating a new culture or changing an existing culture. They also propose that culture maintenance leadership is important in more stable environments. The researchers suggest that cultural maintenance leadership focuses on reinforcing existing values and principles so as to help reach organizational objectives.

Schein (1985) asserts that there exists a constant dynamic interplay between culture and leadership. For Schein, organizational culture is taught by leadership. However, he also states that culture manages management more than management manages culture. This paradox does not lessen the role of leadership in teaching or transforming organizational culture. Schein (1992) defines culture as the basic set of assumptions, values, and beliefs that are shared by the members of a group or organization. Schein (1992) asserts that leaders have the greatest potential for embedding and reinforcing organizational culture. He identifies six powerful primary embedding mechanisms which, when taken together, create what can be referred to as the climate of the organization. Leaders can embed and transmit culture (a) through what they pay attention to on a regular basis, (b) through the way they react to crisis and critical incidents, (c) through their role modeling and coaching, (d) through the way they allocate rewards and status, (e) through the way they allocate scarce resources, and (f) through the criteria they use for selection, promotion, and excommunication of organizational members. Schein speculates that
these mechanisms are interactive and mutually reinforcing, and if
incompatible create conflicts and inconsistencies that become part of the
culture or become the foundation for subcultures and countercultures.

Schein (1992) further describes six secondary articulation and
reinforcement mechanisms a leader can employ to embed and transmit
culture. They are referred to as secondary because they only operate
provided that they are consistent with the primary mechanisms. The
secondary articulating and reinforcing mechanisms are:
(1) organizational design and structure; (2) organizational systems and
procedures; (3) organizational rites and rituals; (4) design of physical
space and facilities; (5) stories, legends, and myths about people and
events; and (6) formal statements of organizational philosophy, values,
and creed. Regarding the primary and secondary embedding
mechanisms, Schein asserts that when a manager decides to change the
assumptions of a work group through the application of all of the
mechanisms, that manager is becoming a leader.

Reviewing these definitions, models, and mechanisms
demonstrates the linkage and relationship between culture and
leadership. A major shortcoming of this evidence supporting the
leadership-culture linkage, is that the concepts are, for the most part,
grounded in the traditional paradigm of leadership. Schein (1992) states
that organizational change and learning cannot be understood without
considering culture as a primary source of resistance to change. Still,
culture must also be viewed as a source for change. He also suggests that
as an organization encounters adaptive difficulties as its environment
changes to the point of rendering some of its assumptions invalid, leadership becomes the ability to step outside the culture and begin the evolutionary change process. Yet, in the final analysis, specifically how leadership changes culture is relegated to prescriptive formulations.

Although a relatively recent perspective in social science, the construct of organizational culture has received a great deal of attention and has become quite popular. However, some contemporary researchers and scholars have only indirectly addressed the leadership-culture phenomenon while directly focusing on leadership or culture as separate but related issues. Burns (1978), in his treatise on leadership, did not directly address the issue of organizational culture. The term does not appear in the index, nor does corporate culture, climate, or change. Burns conceived of transforming leadership occurring when leaders and followers are engaged in ways that raise one another to higher levels of motivation and morality. Burns perceived that leadership was purposeful and needed to be understood in the context of leader and follower values, needs, and aspirations. Burns described leadership as "leaders inducing followers to act for certain goals that represent the values and the motivations—the wants and needs, the aspiration and expectations—of both leaders and followers" (p. 19) He further pointed out that the first task of leadership is to bring to consciousness the followers' sense of their own needs, values, and purposes. It is obvious that the elements Burns spoke of are the "raw material" of organizational culture as described above.
For Burns (1978), leadership must tap into the shared values, experiences, and environment for a specific reason. The reason and purpose is that of achieving real change. It is clear that Burns is again referring to real change through the transformation of the values, beliefs, and assumptions of the leaders and followers which constitute the culture. In an effort to more fully define leadership, Burns (1978) states that leadership is causative, elevating, and morally purposeful. His perspective and vision for leadership can certainly be applied to the investigation of leadership and culture. Conceptualizing leadership as a function of engaging followers, in a common purpose of shared values—with the ultimate test of leadership being the realization of intended, real change that meets people's enduring needs—is an important contribution not only to the study of leadership, but also to the study of leadership-culture.

Bennis and Nanus (1985), through their research on leadership, have also indirectly addressed the concept of culture and the leadership-culture linkage. Their text, Leaders: The Strategies for Taking Charge, neither directly discusses culture nor cites culture, climate, or change in its index. They do, however, in the opening paragraphs of their book, identify what is referred to as the "context of leadership," and describe it as a leadership environment in a state of mayhem. The environment is summarized under three major contexts: (1) the commitment gap, (2) profound change, and (3) the credibility gap. They point out that these elements explain why the contemporary leader-follower transaction has gone awry. Throughout their book, Bennis and Nanus (1985) describe
leadership strategies, all of which can be related to two conceptual levels of organizational culture, namely, espoused values and basic assumptions. Their strategies for creating vital and viable organizations include (a) attention through vision, (b) meaning through communication, (c) trust through positioning and (d) deployment of self. They argue that these leadership strategies will result in an empowered organization of shared meanings.

The main focus of their study was contemporary leadership. Bennis and Nanus (1985) studied 90 leaders using qualitative interview methods to identify their strengths and weaknesses, and to gain insight into their success. Only one reference was made indirectly to organizational culture when the researchers were able to spend 3 or 4 days with 5 subjects in their respective companies. However, their conclusions offer insight into a new paradigm of leadership and can be applied to the leadership-culture linkage. Bennis and Nanus concluded that leadership internalizes a vision that instills purpose and cohesion in an organization. Leaders accomplish this by shaping and elevating the motives, goals, and values of followers. Leadership is best conceptualized as a symbiotic relationship between leaders and followers. Through leadership, the proper setting or environment can be created for innovative learning. By learning about the environment, the organization can develop a sense of vision, purpose, and direction based on shared values and principles.

Finally, Bennis and Nanus (1985) explain that leaders articulate new values and norms, propose new visions, and use a variety of tools in
order to transform, support, and institutionalize new organizational meaning. They perceptively refer to this type of transforming leader role as "social architect"—one who understands the organization and shapes the way it operates. Social architecture is virtually synonymous with organizational culture and the norms and values that shape behavior in any organizational setting. In generalizing about transformative leadership, the researchers maintain that (a) it is collective—creating a symbiotic relationship between the leader and the follower, (b) it is causative—creating institutions that empower employees to satisfy their needs, and (c) it is morally purposeful—elevating visions that are based on key values of the work force.

In another study of managers and executives, Kouzes and Posner (1987) identified patterns of leader behavior that led to the achievement of extraordinary results. They reported the following five practices common to successful leaders: (1) challenge the process, (2) inspire a shared vision, (3) enable others to act, (4) model the way, and (5) encourage the heart. In summary of their findings, they suggest that leaders must search for opportunities to change the organization, envision the future, foster collaboration, establish values and norms, and recognize contributions. They conclude that leadership starts where management ends, that leadership is not a place or a person but a process, and finally, that leadership means discovering a common purpose by enlisting others in the realization of intended change.
Changing Organizational Culture

Although theories of organizational culture change vary considerably, many companies are using a combination of techniques in an attempt to change and perpetuate core values and assumptions to improve their performance and increase their chances for long-term survival (U.S. GAO Report, 1992). Culture undergoes gradual changes as an organization adapts to external and internal events. Organ (1988) asserts that this gradual organizational change is incremental in nature and rarely involves dramatic deviations from established patterns. He points out that all cultural levels must be changed in order for organizational culture to change. Changes in the artifacts level do not necessarily lead to changes in the second level, which includes values, or in the third level, which consists of basic underlying assumptions. The dynamic of incremental organizational culture change has been addressed by other authors such as Schneider, Gunnarson and Niles-Jolly (1994). They suggest that organizational culture changes slowly because it cannot be changed directly. They indicate that leaders must modify practices, procedures, and behaviors to change the organizational climate and environment before there can be a change in culture. In other words, climate change precedes culture change. Schneider et al. (1994) suggest that a planned change initiative is an ideal opportunity to flood the environment with cues to the intended changes. Consistent messages, employee participation, and visible manifestations of the intended changes create a change conducive climate allowing people to
develop and share beliefs and values. The new culture emerges as a result of the changes in behaviors and values.

Planned management interventions can help to achieve organizational culture change (Kanter, 1983; Kotter, 1995; Wiener, 1988). Planned change interventions operate at two levels: the behavioral level and the value level. Modifying behavioral norms and developing or changing specific values has been suggested by Allen (1985) and Kilmann (1985) as a way to make an organization more responsive and adaptive. However, the planned change effort by itself does not bring about the culture change. Organizational values must be internalized by the members of the organization, and this is largely an evolutionary and emergent process. It involves a complex learning process requiring the convergence and congruency between core values held by members and the core values of the organization (Jones & Girard, 1967; Wiener, 1982). This holds major implications for planned change interventions. Schein (1992) explains that organizational culture evolves incrementally by assimilating new learning based on what works best over time. He refers to this culture change process as general evolution. Implicit in this concept is the assumption that social systems possess an evolutionary propensity.

Examples of such evolution are the small yet critical adjustments that occur in the belief and values systems of organizational members as they cope with disequilibriums caused by changes in the internal and external environments (Donaldson & Lorsh, 1983; Quinn, 1978). Culture change can also occur through a planned organizational development.
effort that takes into account both the technical and human elements of
the organization using internal facilitators (Beckhard & Harris, 1987;
Burke, 1987) and through the creation of parallel learning structures
(Schein, 1992). Socio-technical systems, high performance organizations,
and total quality work systems are examples of planned organizational
development initiatives aimed at the conversion of organizational beliefs
and behaviors. They have in common the fact that they are planned and
managed by leaders as a normal part of organizational evolution.
Underlying these efforts is the philosophy that the entire system must
change to become more effective, and that in order to change, the leaders
must understand the models and principles of contemporary change.

Schein (1992) contends that organizational culture and the role of
leadership are linked. Change occurs through the mechanisms of
disconfirmation, generation of anxiety, and creation of psychological
safety. When these three factors are in appropriate balance, the system
can unfreeze and become motivated to change. Schein concludes:
“Change then occurs through cognitive redefinition of key concepts, and
the resulting behavioral changes become refrozen in the personalities of
the individuals and in the norms and routines of the group” (p. 312).

Organizational culture has also been conceptualized as a social
control system (O'Reilly & Chatman, 1996). Similarly, other researchers
suggest that social control is dependent upon the observable norms and
values that characterize the organization (Rousseau, 1990; Thompson &
Luthans, 1990). Therefore, the power of organizational culture to
increase commitment among members lies in the power of social control
based on the intensity of shared values and norms aligned with environmental demands (O'Reilly & Chatman, 1996). A strong culture is said to exist when there are a set of values and norms that are widely shared and intensely held throughout the organization (O'Reilly, 1989). Kotter and Heskett (1992) propose that a strong culture is associated with higher goal alignment, motivation, and control in organizations, and that strong cultures can promote excellent performance if they contain norms and values that help organizations to adapt to changing environments.

O'Reilly and Chatman (1996) have identified four mechanisms based on the postindustrial paradigm of organizations and contemporary leadership commonly present in strong culture organizations: (1) systems of participation that lead people to feel committed, (2) contemporary leadership actions that stress the intrinsic importance of events, (3) consistently communicating important beliefs and values, and (4) reward systems that recognize and reinforce individual and collective contributions. These systems can impact cultural norms and lead to continuous quality and productivity improvement (Womack, Jones, & Roos, 1990).

Empirical and conceptual studies have established a moderately strong relationship between organizational culture and performance (Deal & Kennedy, 1982; Denison, 1984; Denison & Mishra, 1995; Gordon, 1985; Kanter, 1983; Kotter & Heskett, 1992; Peters & Waterman, 1982; Schein, 1992; U. S. GAO Report, 1992). Organizational culture has also been identified as a key social variable in organizational
change and effectiveness (Allen & Kraft, 1987; Deal & Kennedy, 1982; Frost, 1991; Kilmann, 1985; Ott, 1989; Schein, 1992). Furthermore, organizational culture has been linked to postindustrial leadership (Heifetz, 1994; Rost, 1991), leader-follower collaboration (Burns, 1978), organizational learning (Schein, 1992; Senge, 1990), and contemporary planned change models (Burke & Litwin, 1992).

Schein (1992) dovetails leadership, culture, and change by describing leadership as an attitude and motivation to diagnose and manage organizational culture. It is the leader’s learning capacity, not the leader’s personality, that is important for culture transformation. To facilitate adaptation and alignment with a changing environment, contemporary collaborative leadership is required. Leaders need diagnostic skills to be able to analyze culture in sufficient detail to know which assumptions will help and which will hinder change, and they must possess change intervention principles and culture management practices to make intended change happen. These principles and practices relate directly to the primary culture embedding mechanisms and the secondary culture articulating and reinforcing mechanisms advanced by Schein (1992). Schein speculates that many change programs fail because managers who desire to change their organizations neglect to use the entire set of culture embedding mechanisms.

In his most recent article, Schein (1996) elaborates on his views of culture change and leadership. He observes that, in general, inattention to social systems results in underestimating the importance of shared
norms, values, and assumptions—in how organizations function. He notes that the failure of organizational learning can be understood by studying the power of norms that operate as systemic forces that create culture, and the typical responses to change by members of broad occupational cultures. He also asserts that it is the lack of organizational learning that explains why so many programs of organizational development and change fail to survive or diffuse within organizations. Schein identified various areas that require new learning by organizational members: how to collaborate, how to become more trusting, how to be open in communications, how to deal with dependency in contemporary fluid hierarchical relationships, how to develop personal versus positional power, and how to design organizations with fluid boundaries.

Schein (1996) refers to the inability of new methods of learning and problem solving to diffuse or become embedded in an organization as the “learning disability” of specific management cultures or occupational communities. He has identified three such occupational communities: the “operators,” the “engineers,” and the “executives.” The operators are the organizational members who make and deliver the products and services that fulfill the organization’s mission. It is this group that typically becomes the focus of change programs and organizational learning efforts. However, Schein notes that innovations and changes in the operator community neither diffuse upward nor persist in the organization. In every organization, the technological imperative underlies what the organization does. The technology is designed and
monitored by engineers who share a common occupational culture. The tacit assumptions shared by this occupational community result in systems, routines, and processes that are automatic and totally reliable. The preferred solutions of engineers are solutions without people. This lack of understanding and support of contemporary work design and systems thwart commitment to innovative change efforts in the operator community.

The third occupational community, the executives, share a common set of assumptions based on the daily realities of their unique status and role. The essence of this role is the short-term financial accountability to the company shareholders. This group is often isolated and insulated in the organization and finds it hard to trust what subordinates tell them. Executives often abandon concepts of teamwork, collaboration, commitment, and involvement on the grounds that they do not demonstrate financial gain and increasingly rely on rules and control. Schein observes that a few organizations have been able to overcome the negative forces of short-run financial thinking and technological solutions that underestimate the human factor. However, those organizations are still the exception rather than the rule, and their success is not fully understood (Collins & Porras, 1994; Donaldson & Lorsch, 1983; Kotter & Heskett, 1992).

Schein (1996) warns that the occupational culture phenomenon can lead to the possibility that an organization may not be able to become a reliable learning system unless it reconciles the built-in conflict between the three cultures. It is critical that organizations focus their
attention on the contemporary role of leaders and the active involvement of organizational members, and rely on change models that require organizational learning. Schein (1992) states: "It seems clear that the leaders of the future will have to be perpetual learners" (pp. 391–392). This will include new skills in analyzing and changing cultural assumptions, the willingness and ability to involve others and elicit their involvement, and the ability to learn the assumptions of a new organizational culture.

The following section contains a brief elaboration of the last three research questions and presents the proposed conceptual hypotheses.

Elaboration of Research Questions 5–7 and Conceptual Hypotheses

Research Question 5

Are there relationships between follower perceived levels of organizational culture potency and planned change efficacy, and both leader style and leader behavior?

Research Question 6

Are there relationships between follower perceived levels of organizational culture potency and planned change efficacy, and both leader leadership paradigm and leader style?

Organizational culture has been described as having three levels: observable artifacts, espoused values, and basic underlying assumptions. Artifacts are often manipulated in an attempt to impact culture with
little success. Leaders who engage in this type of activity only create an appearance of change through the staging of effects. Assumptions, on the other hand, are deeply rooted and usually unconscious in nature and determine perceptions, feelings, and behavior. Directly focusing on assumptions in an effort to change culture is an uncertain approach due to problems identifying, deciphering, measuring, and analyzing underlying assumptions. Most researchers agree that shared values and enacted norms are core elements of culture and are key to defining and changing organizational culture. Values are considered forms of beliefs that have their source in social expectations. Norms are shared standards that influence behavior through group or social expectations.

In an organization based on principles of involvement, empowerment, total quality, and team concepts, a number of values and beliefs can become established and further develop expectations that act as normative guides for leader and follower behavior. When developed, a value system encourages two elements that can impact organizational strategies and culture: (1) broad organizational participation in the realities of day-to-day business, rather than a ritualistic top-down approach; and (2) focused and diligent evolutionary improvement and transformation, rather than flamboyant quick-fix approaches. In this way, a planned change initiative or intervention can help in achieving real and lasting organizational culture change.

A specific change initiative, however, cannot bring about culture change alone. The change effort must be based on sound contemporary change theory and be judged as effective by organizational members.
Followers must internalize shared values, and expected norms must also be institutionalized. This cannot occur solely through the formal decisions and directives of leaders. Internalization and institutionalization are evolutionary and emergent processes based on a contemporary paradigm of leadership that elicits the belief in organizational members that they have an obligation to engage in modes of conduct reflecting espoused beliefs, values and norms. It is proposed that strong organizational culture is predicated on a highly congruent shared value system capable of influencing leader and follower behavior. It is further suggested that the leader's postindustrial leadership paradigm, contemporary behavioral role, and assumptions regarding planned change will act as antecedents for shared value congruence and planned change effectiveness.

**Conceptual Hypothesis 5**

Regarding the fifth research question stated, the following conceptual hypothesis is proposed: In the research organization engaged in a planned change initiative, leader style will not be an important factor related to follower's perceived levels of organizational culture potency and planned change efficacy. Leader style will not interact with leader behavior to influence follower perceived levels of organizational culture potency and planned change efficacy. Leader contemporary and traditional behavior roles will differentially influence follower perceptions regarding the levels of organizational culture potency and planned change efficacy.
Conceptual Hypothesis 6

Regarding the sixth research question stated, the following conceptual hypothesis is proposed: In the research organization engaged in a planned change initiative, leader style will not be an important factor related to follower's perceived levels of organizational culture potency and planned change efficacy. Leader style will not interact with leader leadership paradigm to influence follower perceived levels of organizational culture potency and planned change efficacy. Leader industrial and postindustrial leadership paradigm will differentially influence follower perceptions regarding the levels of organizational culture potency and planned change efficacy.

Research Question 7

Given the relationship between follower perceived levels of planned change efficacy and perceived levels of organizational culture potency, is follower perceived level of organizational culture potency related to leader behavior and leader leadership paradigm when the influence of planned change efficacy is removed?

Planned organizational change initiatives imply organizational culture change. Culture change relates to the intentional uncovering of basic underlying beliefs and values for the purposes of assessing their appropriateness and the creation of new shared values. This presumes knowledge and insight on the part of leaders into their culture and the degree to which current cultural beliefs and values help or hinder
organizational change efforts. All change occurs through certain mechanisms that focus on disconfirming the present state, creating anxiety and discomfort and establishing psychological safety. Change takes place then through the cognitive redefinition of key concepts and assumptions, and the resulting behavior changes becoming institutionalized in the norms and routines of the organization.

Although leader style may contribute positively to the leader-follower dynamic, it is not necessarily related to or dependent upon the knowledge, behavior role, or leadership paradigm of the leader. Style is expected to have little influence on planned change initiatives involving leader-follower collaboration, or on organizational culture change focusing on solving problems of external adaptation and internal integration.

Contemporary leadership differs from traditional leadership in a number of ways with two differences being the most relevant: contemporary leadership is an organizational quality, whereas traditional leadership is an individual personality; and contemporary leadership emphasizes organizational change, whereas traditional leadership emphasizes organizational control. Contemporary leadership is predicated on the postindustrial paradigm of leadership. It is the basic beliefs and underlying assumptions about people, organizations, and change that make up the postindustrial paradigm. These beliefs and assumptions play a major role in determining the principles and practices of contemporary leaders.
Finally, for planned change initiatives to be effective and lasting, the values, beliefs, and norms associated with the change must be instilled and anchored in the organizational culture. Although this proposition has strong support in the empirical and theoretical literature, it also appears that culture is not changed directly. It is the nature of organizational culture that multiple forces have to be applied to manage the change process. Organizational learning is one such force that precedes and promotes culture change. Change models based on theory and practice of contemporary change are also considered points of entry to affect and modify culture. These points of entry include organizational development initiatives such as socio-technical approaches, total quality management, and high performance work systems.

These change initiatives must be understood and implemented in accordance with the model’s principles in order to be effective. It is proposed that culture change begins with the recognition of performance problems and the implementation of a change model to address the problems. It is further speculated that organizational members must see the change model as necessary and appropriate and perceive the change effort as effective. In this way, the psychological conditions for change are created, and the critical requirements for change are satisfied. Through the change intervention, the leader is able to apply and practice the change mechanisms associated with transforming organizational culture.
**Conceptual Hypothesis 7**

Regarding the seventh research question stated, the following conceptual hypothesis is proposed: In the research organization implementing the planned change model, follower perceived level of planned change efficacy will moderate the relationships between organizational culture potency and both leader behavior and leader leadership paradigm. Expected differences in mean organizational culture potency scores between contemporary and traditional leader behavior roles, and between industrial and postindustrial leadership paradigm will be adjusted when the variance between the scores attributed to follower perceived levels of planned change efficacy is removed. The relationship between both leadership paradigm and leader behavior, and organizational culture potency as perceived by the followers will be dependent on the levels of planned change efficacy.

**Summary**

The foregoing review of the literature related to leadership, planned change, and organizational culture establishes the fact that leadership is being reconceptualized and that a dynamic linkage exists between leadership, planned change, and organizational culture. These two propositions are advanced and supported by various researchers to varying degrees. In most instances, however, support is still incomplete if not tentative. Schein (1992) set forth the most provocative claims regarding the leadership-change-culture linkage by defining...
contemporary leadership in terms of the creation, transformation, and
destruction of organizational culture, and by describing culture change
in terms of various planned change interventions.

The literature supports the four major assertions of this research.
First, leadership is, for the most part, framed within the traditional
leadership paradigm. It is a pervasive and enduring paradigm that is
based on assumptions grounded in the industrial leadership model and
the mechanistic view of organizations. These traditional industrial
assumptions include the following: (a) “leadership” is synonymous with
“leader”; (b) leadership is a personality trait; (c) leaders lead and
followers follow; (d) followers are powerless and lack personal vision;
(e) leaders impact culture by virtue of their heroic, inspirational, and
charismatic attributes; and (f) structure determines culture. Second,
with regard to planned change, the principles and practices of
organizational change based on contemporary theories and assumptions
are not sufficiently understood and applied by leaders and managers.
This lack of knowledge, to a great extent, accounts for the large number
of planned change effort failures in business and industry. Third, with
regard to organizational culture and planned change, it is proposed that
leader behavior and leadership paradigm are related to culture and
change independent of the style of the leader. Fourth, it is speculated
that organizational culture cannot be changed directly and that it is
influenced by planned change initiatives that are anchored in the shared
beliefs and enacted norms of the organization.
In summary, therefore, the personality style of leaders has been vastly overrated. The conceptualization of leadership as a “personality characteristic” is an oversimplification. A more complex set of demands, roles, responsibilities, and relationships is now recognized as being integral to contemporary leadership in the postindustrial age. Leadership in the postindustrial era will be a function of leader-follower collaboration, legitimating principles, and expected cultural norms. Reconceptualizing leadership in relational terms instead of individual terms implies that there is a dramatic and fundamental difference between a leader’s style and a leader’s behavioral role based on a postindustrial leadership paradigm. This reconceptualization further suggests that if leader style is dependent on individual predispositions and leader behavior is dependent on organizational expectations and paradigmatic assumptions, leader style and leader behavior are not inevitably related.

Likewise, an organization’s approach to planned change will likely be determined by its change paradigm. In a planned change intervention based on total quality and high performance work systems, the change assumptions will be linked with contemporary leadership assumptions—a leadership paradigm which extols contemporary assumptions of human and organizational behavior and development. Although much contemporary knowledge of change management has been accumulated and a number of planned change models exist, the level of knowledge possessed by managers and change agents remains limited. The frequency of reports of planned change failures implies that
employees are frustrated with management change programs and certainly lack confidence in change initiatives and change models. It is proposed that a higher level of knowledge on the part of managers and leaders in theory-based contemporary principles and practices of organizational change will result in positive employee perceptions regarding the efficacy of the planned change intervention.

A planned change intervention cannot bring about organizational culture change alone. The change effort must be based on sound contemporary change theory and be judged as effective by organizational members. Organizational members must internalize shared values, and group norms must also be institutionalized. This cannot occur solely through the formal decisions and directives of leaders. Internalization and institutionalization are evolutionary and emergent processes based on a contemporary paradigm of leadership that elicits the belief in followers that they have an obligation to engage in modes of conduct reflecting the espoused values and expected norms of the organization. It is proposed that strong organizational culture is predicated on a highly congruent shared value system capable of influencing leader and follower behavior. It is further suggested that the leader's postindustrial leadership paradigm, contemporary behavioral role, and assumptions regarding planned change will act as antecedents for espoused value congruence and planned change effectiveness.

It is proposed that culture change begins with the recognition of performance problems and the implementation of a change model to address the problems. It is further speculated that organizational
members must see the change model as necessary and appropriate and perceive the change effort as effective. In this way, the psychological conditions for change are created, and the critical requirements for change are satisfied. Through the change intervention, the leader is able to apply and practice the change mechanisms associated with transforming organizational culture.

This research is interested in reconceptualizing leadership and explicating leadership-change-culture relationships. As a whole, the leadership literature maintains the central focus on the leader and equates leadership with good management. In regard to the organizational culture literature, weaknesses and deficiencies exist in the areas of culture transformation antecedents, and leadership-culture relationships. It is also the intention of this investigation to study the relationships between leadership, culture, and the efficacy of organization change initiatives. It is proposed that change must be anchored in the organizational culture and that culture cannot be transformed directly.

In other words, organizational culture cannot be installed, it can only be instilled through contemporary leadership based on profound knowledge—leadership that is a relational process between leaders and collaborators who develop shared values and beliefs in order to successfully adapt and realize intended change. Since culture is considered a result or an outcome, it is postulated that it cannot be directly affected. It is proposed that a leadership-culture is the means to the end. Therefore, for followers to be intimately involved in the
evolution of culture, they must be engaged in the process of leadership—the influence relationship among leaders and followers who intend real changes that reflect their mutual purposes (Rost, 1991). In this regard, Schein (1992) has offered insight into the leadership-change-culture construct. He makes the following assertions: (a) leadership is responsible for changing cultural assumptions, (b) leadership must create involvement and participation, and (c) leadership is the ability to adapt and learn a new culture. In a closing passage from his book, Organizational Culture and Leadership, Schein (1992) concludes:

Learning and change cannot be imposed on people. Their involvement and participation are needed diagnosing what is going on, figuring out what to do, and actually doing it. The more turbulent, ambiguous, and out of control the world becomes, the more the learning process will have to be shared by all the members of the social unit doing the learning. If the leaders of today want to create organizational cultures that will themselves be more amenable to learning they will have to set the example by becoming learners themselves and involving others in the learning process. (p. 392)
CHAPTER III

RESEARCH METHODOLOGY

The purpose of this chapter is to describe the research design, the various dimensions of the study, and the methods undertaken to address the conceptual hypotheses. The chapter begins by describing the research design and the organization under investigation. The chapter continues with the research sample unit of analysis section, the instrumentation and measures sections, the data gathering procedures section, the hypotheses section, and concludes with the data analysis section.

Research Design

This investigation examined and explored the dynamic relationships between leader style, behavior, knowledge of change management principles, and leadership paradigm; and followers' perceptions of planned change efficacy and organizational culture potency in a dynamic manufacturing organization. The purpose and focus of this study was to explore and understand relationships between variables based on data collected at one point in time from a particular organization (Babbie, 1992). A group level unit of analysis strategy using survey methods was used in the research design. The use of survey research, the administration of questionnaires to a sample of
respondents, allowed for flexibility and was especially appropriate for conducting this exploratory study and making refined descriptive and explanatory assertions.

The study investigated followers and their leaders in an organization implementing total quality and high performance principles and practices to measure leader characteristics and to study their relationships to follower perceptions regarding planned change and organizational culture. This research design allowed for the study of leader characteristics by having the supervisors complete a leader style instrument, a change management questionnaire, and a leadership definition survey; and by having the followers complete a survey describing their leader's behavior. Also, the research design allowed for the study of follower perceptions by asking individuals to respond to a planned change efficacy questionnaire and two organizational culture potency questionnaires, the first measuring shared beliefs and the second measuring enacted norms.

Leadership studies, for the most part, have ignored the postindustrial paradigm of leadership (Rost, 1991), and although a connection has been identified between leadership, organizational culture, and change (Schein, 1992), the linkage between the constructs remains unclear. The paucity of literature and empirical research in this area demonstrates the need to study leadership, organizational culture, and planned change within organizational settings implementing total quality and high performance change strategies to further explicate the leadership-culture-change dynamic.
Organization Under Study

The organization selected for this research study (referred to as ABC Company) is an international Fortune 150 forest products corporation. With business interests in forestry and timberlands, wood products and building materials, pulp, paper and container board sectors, ABC is an integrated manufacturer and leading supplier of wood, paper, and packaging products. The ABC Company began to adopt team concepts in its mill and packaging operations in the late 1970s. An acquisition in the late 1970s by the ABC Company consisting of two plants belonging to a national consumer products firm (referred to as XYZ Company) involved in high performance work systems since 1958 brought socio-technical work redesign knowledge and expertise into the ABC organization. XYZ Company, considered a pioneer in the application of socio-technical systems, began to experiment with self-directed work teams as early as the mid 1950s (Walton, 1985).

The following section, which discusses ABC Company and describes its Total Quality Work System initiative related to the Six Phase Change Model (Belgard, Fisher, & Rayner, 1991) and the Ten High Performance Work System Elements, is based on a proprietary training and resource manual entitled High Performance Work Systems printed by the ABC Company and revised in 1993.

XYZ's first high performance work system plant was built in 1958 and by 1960 it was achieving superior results with exactly the same technology as its traditional plants. Through progressive work redesign,
by the late 1970s XYZ Company had realized between 30% to 40% higher productivity in its 18 team-based plants and considered work teams so vital to their competitive advantage that until recently guarded the team approach plants by giving them very little publicity. In 1980, XYZ Company summarized the learnings gained from 21 plants built during the 1960s and 1970s. The outcome was clear: high performance work systems were a competitive advantage and outperformed existing traditional work systems. The XYZ Company based its high performance work systems practices on the following fundamental concepts: contemporary leadership, management by principles, multi-skilled teams, team problem solving, employee training, and contribution-based rewards.

In 1990, XYZ Company again comprehensively summarized their findings and developed a list of 10 high performance work system principles. These principles are referred to as the Ten High Performance Work System Elements. The Ten Elements derived from socio-technical (Cherns, 1976), work redesign (Hackman & Oldham, 1980), and employee participation (Likert, 1967) concepts include: respect for all employees, common objectives, process focus and results orientation, problem solving and process improvement, and performance based rewards. XYZ Company also performed a major study to determine which specific organizational designs led to superior results. Their investigation identified that there were no “best” designs, but concluded that executing all of the high performance work system elements was of
critical importance. The manufacturing plants that executed the elements with excellence were clearly the leaders in performance.

In 1990, the ABC Company adopted the Ten High Performance Work System Elements and combined them with the Six Phase Change Model to establish their corporate Total Quality Work System (TQWS) team design initiative. Some initial examples of TQWS applications were problem-solving teams, peer review, training in statistical process control, pay for knowledge systems, performance rewards (gainsharing), customer visits and crew exchanges, and work center teams. In 1993, a major focus was put on the TQWS initiative in the container board packaging division. Based on the initial success of the initiative and the need for the packaging plants to improve performance, the division directed its operating units to consider work team redesign through implementation of the TQWS Six Phase Change Model in accordance with the Ten High Performance Work System Elements.

In ABC Company, the TQWS initiative is described as focusing on the utilization of human, technical, capital, and information resources to reach optimum performance in the packaging plants as compared with industry and business standards. The desired result of the TQWS initiative is to change the existing work systems based on the traditional control paradigm into team-design work systems based on the contemporary commitment paradigm in which people are committed to achieve optimum performance and continuous improvement, thereby producing a sustainable competitive advantage. In 1994, the ABC Company container board packaging division formally adopted the Six
Phase Change Model, embraced the Ten Elements of high performance work systems, and set aggressive goals in the areas of organizational change and work process redesign. A brief overview and description of the TQWS change model and the high performance work system elements follows.

The Six Phase Change Model

The Six Phase Change Model is derived from the Organizational Performance Model (Hanna, 1988) and the Open Systems Organizational Transition Model (Beckhard & Harris, 1987). The Six Phase Change Model incorporates the following key elements: rethinking traditional assumptions, creating a common vision, development of human capital, improving people processes and work systems, institutionalizing improvements through reinforcement, and organizational reassessment and renewal.

The Six Phase Change Model consists of the following phases:

**Phase 1—“Prepare Leaders”:** This phase focuses on creating a knowledgeable critical mass and a vision of the future. Activities include developing a strong case for change, articulating a compelling vision, empowering leaders to act, and studying the implementation process.

**Phase 2—“Generate Commitment”:** This phase focuses on developing a common and shared vision, securing broad leadership support and commitment, creating a positive environment for change, and preparing all leaders for their new leadership roles. Activities include clarifying new roles, establishing a contemporary leadership
paradigm, forming leadership teams to facilitate and coordinate the change process, and developing a transition plan.

Phase 3—"Empower Employees": This phase focuses on reducing skepticism and anxiety about the change effort, enlisting employees and other stakeholders, introducing the new paradigm, and empowering people. Activities include aligning people with the vision, clarifying team member roles, training and education, problem solving and work process improvement, and institutionalizing the methods into the day-to-day operations.

Phase 4—"Redesign Work Processes": This phase focuses on analyzing and redesigning work processes, equipping people with knowledge of total quality principles, and applying high performance team skills. Activities include process flow analysis, analytical problem solving, process improvement, work process redesign, redefining roles, and institutionalizing continuous improvement processes.

Phase 5—"Reinforce Work Process Designs": This phase focuses on reinforcement and alignment of all activities and support mechanisms in the organization with total quality and high performance principles and values. Activities include redesigning policies, practices, and procedures to support new work designs, and redesigning progression, pay, and reward systems.

Phase 6—"Renewal": This phase focuses on celebrating accomplishments, continual reappraisal of people and work processes, monitoring customer expectations, and defining next levels of excellence. Activities include recognizing improvements, celebrating
accomplishments, and continually improving processes and systems to meet and exceed customer needs.

**The Ten High Performance Work System Elements**

The high performance work system elements consist of two foundation elements considered to be the "glue" that binds the elements together into a superior system of values and norms. It also contains six operating elements that distinguish high performance systems from traditional work systems, and two system elements that facilitate high performance work systems and make them practical. Due to the fact that the Ten High Performance Work System Elements are grounded in socio-technical (Cherns, 1976), work design (Hackman & Oldham, 1980), and employee participation (Likert, 1967) theories, they are referred to as "principles" and are important because they represent espoused shared values and beliefs, and identify the expected norms that guide decisions and behavior. These principles reflect common conceptions and expectations which are the foundation of the organization's culture.

The Ten High Performance Work System Elements consist of the following:

1. *Foundation Element I*—"Respect the Capability of All Employees": This principle incorporates human potential, mutual trust and respect, personal growth, and shared leadership into a basic belief system.

2. *Foundation Element II*—"Common Purpose and Objectives": This principle relies on mature relationships, high levels of personal
commitment, alignment of personal and organizational objectives, and continuous improvement to create a sense of shared ownership.

3. *Operating Element I*—"Managing by Principles": The element provides the opportunity for teams to identify and articulate their widely held beliefs and values. These principles then guide behavior and decisions and minimize the organization's reliance on rules.

4. *Operating Element II*—"Process and Results Orientation": This element addresses the importance of understanding customer needs, having teams aligned to focus on and exceed customer needs, developing customer-driven business objectives, and developing systems and processes to achieve those objectives.

5. *Operating Element III*—"Team Goal Setting and Problem Solving": This element addresses the primary means of building employee ownership and commitment through providing focus, accountability, and meaningful involvement.

6. *Operating Element IV*—"Team Concept": This element emphasizes that teams must be the basic unit of the organization, enabled and empowered to be successful, and responsible for business results.

7. *Operating Element V*—"Skill and Knowledge Based Rewards": This element focuses on the importance of connecting teams to the consequences of their actions through recognition and rewards based on contributions to the business objectives.

8. *Operating Element VI*—"Multi-Skilled and Total Task Concept": This element is based on socio-technical job design concepts of
teams performing a total task and having responsibility for a complete process to become self-sufficient and self-directing.

9. **System Element I**—“Informed People Through Communication and Training”: This element stresses the importance of free-flowing information going beyond the traditional need to know, and extensive training and education in technical as well as business and team skills.

10. **System Element II**—“Self-Assessment and Renewal”: This element stresses that continuous improvement must be planned and not left to chance. It ensures that the TQWS initiative is tied to the ongoing business planning process and that formal and informal assessment tools are used routinely.

A recent evaluation of the division's TQWS change initiative progress toward high performance work systems showed that not only were the regions within the packaging division progressing at very different rates, but that individual plants were experiencing various problems and difficulties. Plant management reported that organizational barriers still existed and that the TQWS change initiative was being met with resistance, skepticism, and fear. Some of the more critical and persistent problems were identified as insufficient level of management commitment, no clear understanding of how to implement the change model, lack of interest on the part of production workers, supervisors not accepting their new roles, lack of organizational change knowledge and expertise, difficulty in creating collaborative relationships with local unions, and the failure to sustain initial progress and results.
Based on this realization, the ABC Company refocused its efforts and set new goals related to the TQWS change initiative challenging all plants in the packaging division to be in the process of Phase 4 by the end of 1998. In support of this objective, additional training was offered to plant leadership teams, diagnostic readiness assessments were administered and analyzed throughout the division, and the division human resource group began working with selected plants to facilitate and invigorate their high performance work system activities. Although confident that this remedial action by the division would have some positive impact, the human resource group expressed concerns that these actions did not adequately address the persistent problems of traditional leadership and organizational culture.

Research Sample

Of interest to the researcher is the group level of analysis. The sample for this research study consisted of leader and follower respondents from a number of packaging plants. The sample plants, representing a regional area in the container board packaging division, are all actively involved in the implementation of the Six Phase Change Model based on total quality and high performance work systems.

Since the plants are manufacturing sites, the sample represents the production, shipping, and maintenance departments. Strict design criteria were considered with respect to identifying a legitimate and qualified unit of analysis. The group must be recognized as a formal work team, the team has a formal external leader, the team shares the
responsibility for an identifiable product or process, the team is aware of its goals and performance measures, the team is familiar with and actively engaged in the process of implementing the TQWS change model, and the team must be in existence at least 6 months.

The researcher requested and received region management approval to gain access to the various manufacturing locations. Local plant management was informed about the details of the study by the researcher, and management welcomed and gave full support for the project. The plant human resource managers were instrumental in coordinating the schedule and assisting the researcher to communicate the dates and times of the survey by posting announcements. All members from the production, shipping, and maintenance departments and their leaders were notified and invited to participate in the research study. The opportunity was provided for the leaders and followers to anonymously and independently complete the surveys during their normal work day. The researcher determined that a sample group will be considered a qualified and legitimate unit of observation when 50% or more of the followers and their leader complete the survey instruments.

Instrumentation

Quantitative data were obtained by using survey instruments to examine and explore relationships between the following variables: leader style, behavior, knowledge of change management principles and leadership paradigm; and follower perceptions of organizational culture potency and change model efficacy.
Table 2 describes the various survey instruments used in this study.

Table 2
Survey Instruments Used in Study

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<th>Instruments Developed by Other Researchers</th>
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<td>Survey Instrument</td>
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<tr>
<td>a) Least Preferred Co-worker Scale (LPC) (Fiedler, 1967)</td>
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<tr>
<td>b) Organizational Beliefs Questionnaire (OBQ) (Sashkin &amp; Fulmer, 1985)</td>
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<td>c) Managing Change Questionnaire (MCQ) (Burke, 1991)</td>
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<th>Instruments Developed by the Researcher</th>
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<tr>
<td>Survey Instrument</td>
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<tr>
<td>d) Leader Behavior Survey (LBS) (Chodkowski, 1994)</td>
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<tr>
<td>e) Leadership Definition Questionnaire (LDQ)</td>
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<td>f) Change Efficacy Questionnaire (CEQ)</td>
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<td>g) Organizational Norms Questionnaire (ONQ)</td>
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Least Preferred Co-worker Scale (LPC)

The LPC Scale (Fiedler, 1967) was used to measure and categorize the style of a leader as either people-oriented or task-oriented. The LPC Scale has dominated research in leadership studies. Fiedler (1967) perceives a leader as having a personally consistent style and that leader style is related to the personality of the leader. Fiedler (1976) contends that “the personality of the leader is likely to determine to a large extent the degree to which he can influence the behavior of his group” (p. 11), and defines leadership style “as the underlying need structure of the leader which motivates his behavior in various leadership situations” (p. 36). Based on this conceptualization, leaders behave in ways that increase their feelings of self-esteem and decrease their feelings of anxiety by performing activities to their own satisfaction consistent with their personal needs or styles.

The LPC score is determined by asking the leader to think of all past and present coworkers, select the one with whom he or she worked least well with and rate that individual on an 18-item set of bipolar adjectives using an 8-point Likert type rating scale. The sum of the scales of items constitutes the leader's LPC score. A leader who is generally critical in rating the least preferred coworker will obtain a low LPC score (64 or lower). A leader who is generally lenient in rating the least preferred coworker will obtain a high LPC score (73 or higher). Thus, the implicit personality theory of the low LPC leader links work
performance with undesirable personality characteristics, while the implicit personality theory of the high LPC leader separates work performance and personality. A low LPC score indicates a task-oriented leader style, and a high LPC score indicates a people-oriented leader style. Based on validation studies (Fiedler, 1967), LPC score descriptive statistics reported a mean of all LPC scores ($n = 320$) of 3.32 and a standard deviation of 1.39. The range of scores has been divided into thirds for categorization. The lower third reflecting the low LPC scores averages 1.8 with a standard deviation of .43, and the upper third reflecting the high LPC scores averages 4.9 with a standard deviation of .82. Although three categories were originally identified by Fiedler, high (68 or higher) and low (67 or lower) scores suggest a binomial distribution, supporting the decision to measure LPC as a dichotomous variable in the present research study.

The internal consistency of the LPC scores has been determined by split-half correlations. These coefficients have been uniformly high ranging from .85 to .95. In five studies with the updated 18-item scale, Rice (1979) reported coefficient alphas of .90, .91, .79, .84, and .89. Regarding content validity, LPC scores have been found to be unbiased, free of social desirability (Schriesheim, 1979), and reflective of two factors: one associated with interpersonal relations and the other with task orientations (Shiflett, 1974). With regard to construct validity, Rice (1978) concluded that LPC scores are measures of interpersonal relations versus task orientations, and also found reports of the scale's test-retest
reliability correlations ranging from .01 to .91 with a median of .67 (Rice, 1979).

**Organizational Beliefs Questionnaire (OBQ)**

The OBQ (Sashkin & Fulmer, 1985) is designed to assess organizational culture by exploring values and measuring the strength of underlying shared beliefs. The OBQ was developed to measure the overall culture of an organization based on the 10 beliefs and values that drive an organization toward excellence derived from the work of Peters and Waterman (1982), and later revised based on the latest research of Collins and Porras (1994). The OBQ was chosen for this research because it measures the strength or potency of an organizational culture by using both people and performance criteria. The OBQ focuses on beliefs and values that must be shared to accomplish work and achieve excellence. By focusing on beliefs and values, this instrument aims at measuring organizational culture at the espoused values level of analysis (Schein, 1992). The OBQ was completed by the individual work team members. The members scored their perceived levels of organizational belief for each of the value statements, and the mean group scores were calculated.

The OBQ consists of 20 items, 2 items written to tap each of the 10 beliefs. To combat the problem of social desirability, for each pair of items, one is written in the positive while the other is written in the negative. Further, the items are not phrased in "I" believe terms, but in terms of what “people in this plant” believe. The questionnaire dimensions include 10 values: enjoying work, continuous improvement,
setting challenging goals, taking responsibility caring about others, attaining top quality, collaboration, measuring results, hands-on management, and believing in shared values. The format consists of a 5-point Likert scale ("do not believe" to "very strong belief").

The instrument has content validity since the OBQ scales were derived directly from Peters and Waterman's (1982) definitions of the beliefs that drive excellence. Based on initial studies, Sashkin and Fulmer (1985) report evidence that supports the construct validity of the OBQ citing less variability between group scores within a single organization than for group scores between a variety of organizations. Consensual validity has been demonstrated by relatively low within organization variance in responses (Sashkin & Fulmer, 1985). Regarding criterion related validity, norms have been proposed for scores to achieve specific levels of excellence based on prior research (Sashkin & Fulmer, 1985). Internal reliability has been calculated to test the internal consistency of the OBQ and reported as moderate to high with coefficients ranging from .54 to .78 (Xenikou & Furnham, 1996). To assess the validity of the OBQ for this dissertation, the researcher performed an item analysis on data gathered from respondents at the first plant surveyed. The reliability analysis performed to calculate the internal consistency of the instrument resulted in a Cronbach alpha coefficient of .47.
Managing Change Questionnaire (MCQ)

The MCQ (Burke, 1990) is designed to measure the degree of knowledge regarding leading and managing organizational change. This survey instrument was completed by the leaders. The MCQ is based on theoretical and research knowledge regarding contemporary change processes and practical experience gained through field studies in organizational change. The foremost objective of the instrument is to confirm existing assumptions regarding change. The questionnaire has been administered and tested over a 10-year period (1986–1995) with over 2,600 leaders and managers in more than 15 industries, including the federal government.

The MCQ consists of 25 items in the form of true-false questions and addresses six dimensions that make up the Managing Change Model: (1) individual response to change, (2) general nature of change, (3) planning change, (4) managing the people side of change, (5) managing the organizational side of change, and (6) evaluating the change initiative. The results of field tests have revealed an average score of approximately 70% (Burke et al., 1991). Leader scores were measured on an interval scale to indicate the leader's degree of contemporary knowledge of organizational change principles. The MCQ is a knowledge-based instrument grounded in principles and concepts derived from social psychology, organizational theory, applied research, and consulting experience. Although the MCQ is scored according to Burke's answers, the content of these answers has been adapted from
theoretical models and research studies (Burke & Spenser, 1990). In a study of Organizational Development (OD) practitioners ($n = 357$) using the MCQ survey, Burke and Church (1992) tested the criterion validity of the instrument and conducted a factor analysis of the survey results. When factor analyzed, the data closely matched the researcher's organizational model of change (Burke & Litwin, 1992) developed with considerable attention to theory and applied research findings. Of 25 questions, the average score for correct responses was reported as 20.07, with a standard deviation of 2.34. A "correct response" meant agreement with the researcher's answers for the true-false items. With the exception of item number 1 and item number 25, a minimum of 63% of the OD respondents agreed with the researcher's answers, and 13 of the 25 items received over an 85% selection rate of the correct response. Previous research using the MCQ has shown a mean score for executives and managers ($n = 700$) to be 71% correct (Burke et al., 1991), suggesting that OD practitioners have a better grasp of the concepts and principles of managing organizational change. This outcome largely supports the validity of the MCQ (Burke & Church, 1992). In a more recent study of organizational development practitioners, the MCQ yielded an adequate level of interitem reliability with an alpha coefficient of .72 (Church, Waclawski, & Burke, 1996).

**Leader Behavior Survey (LBS)**

The LBS is designed to measure and categorize leader behaviors into either a traditional or contemporary behavioral role. Both the
leaders and followers completed the LBS to describe and identify the dominant leader behavior role. However, since self-reporting bias is a well-documented phenomenon, only the aggregated follower scores were used to determine their leader’s behavioral role. Leader self-descriptions were used only for comparison purposes. The LBS was developed by the researcher for a pilot study (see Appendix A). The conceptual basis for this instrument was derived from the works of Blake and Mouton (1964), Covey (1991), Crosby (1988), Deming (1986), Kelly (1992), Klein and Posey (1986), Manz and Sims (1987), and Malcolm Baldrige Quality Award Criteria (National Institute of Standards and Technology, 1990).

The LBS is a 26-dimension survey consisting of 13 pairs of keywords with brief descriptive statements representing examples of traditional and contemporary leader behaviors. The instrument asks respondents to indicate the frequency with which their leaders perform 13 traditional behavior roles (for example, “Foreman”—shows the team who’s the boss) and 13 contemporary behavior roles (for example, “Facilitator”—helps the team by being supportive). Each item is rated on a 7-point Likert scale: 1 = never, 4 = sometimes, and 7 = always. Adding the response values for the 13 traditional leader role items and also for the 13 contemporary leader role items results in two scores—the higher score indicates the dominant behavior classification of the leader. Individual follower scores are averaged to categorize their leader’s behavior as reflecting either the traditional leader role or contemporary leader role. Regarding content validity, a factor analysis determined that the subscales of the LBS grouped into two factors indicating the
traditional and contemporary dimensions of leader behavior (Chodkowski, 1994). Inter-item reliability analysis of the LBS indicated strong internal consistency with a Cronbach alpha coefficient of .89 reported for the traditional leader behavior items and .84 for the contemporary leader behavior items.

**Leadership Definition Questionnaire (LDQ)**

The LDQ consists of two related sections. Leaders responded to the first section of the LDQ by writing a definition of their concept of "leadership" in a comprehensive and descriptive manner. The leaders then completed the second section of the LDQ by responding "yes" or "no" to a 12-item leadership paradigm scale to identify the core concepts of their leadership definition and evaluate them against the 12 criteria providing the quantitative data to measure and categorize their underlying leadership paradigm.

The conceptualization and creation of the 12-item paradigm scale is based on a postindustrial contemporary paradigm of the concept of leadership as proposed by Burns (1978), Kelly (1992), and Rost (1991). Specifically, Rost (1991) has identified the four pervasive elements which comprise the industrial paradigm of leadership as: equating leadership with the leader, ignoring the role of followers, emphasizing leader traits and style, and confusing leadership with effective management. Rost has also identified the six characteristics of the postindustrial paradigm of leadership as: a process distinct from management, a process in which followers can be leaders, a relationship which focuses on leader-follower...
collaboration, a relationship that aims at mutual purposes, a process in which people intend real change, and a relationship in which only influence behaviors are acceptable. The 12-item scale reflects both the industrial and postindustrial elements and determines whether the respondents' leadership definition reflects an industrial or postindustrial paradigm of leadership. Six of the 12 items are reverse scored. Face and content validity for the 12-item scale was supported by Dr. Joseph C. Rost, who examined the instrument and determined that it was a reasonable measure accurately reflecting his conceptualization of industrial and postindustrial leadership.

**Change Efficacy Questionnaire (CEQ)**

The CEQ was designed based on the unique dimensions of the organizational change initiative used by the organization under study—the Six Phase Change Model (Belgard, Fisher, & Rayner, 1991). It was used to measure follower perceptions regarding the efficacy of the change model implementation. Individual follower scores for this instrument were aggregated to produce a mean score. The CEQ is an 18-item survey consisting of three questions related to each of the six phases of the change model. Each item is preceded by the phrase “In my opinion, our change effort” and is scored according to its perceived level of effectiveness. For example, the three items related to Phase 1—Prepare Leaders are: “is related to a clearly stated and compelling vision of the future,” “has visible involvement and commitment from leaders,” and “requires leaders to develop knowledge and ability to take next steps.”

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The scale indicates the level of follower perceived planned change implementation effectiveness. Followers individually scored the effectiveness of the planned change model and the mean group scores were calculated. Each item is scored on a 5-point Likert scale with 1 = low effectiveness level and 5 = high effectiveness level. The CEQ was examined by the Belgard Group and found to accurately reflect the intent of the six phases of the change model as developed by Belgard, Fisher, and Rayner. To assess the validity of the CEQ for this dissertation, the researcher performed an item analysis on data gathered from respondents at the first plant surveyed. The reliability analysis performed to calculate the internal consistency of the instrument resulted in a Cronbach alpha coefficient of .95.

Organizational Norms Questionnaire (ONQ)

The ONQ was designed to measure the strength or potency of organizational culture by gathering data from the artifactual level of analysis which includes enacted behaviors, and the espoused values level of analysis which includes expected norms (Schein, 1992). The ONQ recognizes that norms are shared implicit standards or values that explain much of the overt behavior that can be observed at the artifactual level. Followers were asked to rate 10 norms referred to as enacted behaviors in terms of their level of practice. The norms, or “the way we do things around here,” represent the principles of the Ten High Performance Work System Elements. The ONQ consists of 10 statements; each statement is related to one principle or norm of high
performance work systems. The statements are referred to as "norm statements" and are preceded by the phrase "the way we do things around here" to emphasize the enacted behaviors practiced within the organization. Followers individually scored their perceived level of practice within the organization for each of the norm statements and mean group scores were calculated. Scoring is based on a 5-point Likert scale, with 1 = never practiced and 5 = always practiced. The ONQ was reviewed by one of the internal consultants who developed and designed the Ten High Performance Work System Elements and determined the instrument contained both face and content validity. To assess the validity of the ONQ for this dissertation, the researcher performed an item analysis on data gathered from respondents at the first plant surveyed. The reliability analysis performed to calculate the internal consistency of the instrument resulted in a Cronbach alpha coefficient of .88.

Data Collection

Followers and leaders from each of the production plants within the business region were invited to participate in the study through a letter of introduction and also with a follow-up telephone call by the researcher to the site contact person, the Human Resource, Production, or General Manager. The researcher personally met with contact persons to plan, organize, and schedule the administration of the survey. The researcher visited and met with the employees and supervisors to administer the surveys.
Survey instruments were administered to subjects on-site during their normal working hours in a private comfortable location such as a conference or meeting room. Prior to administering the survey, the researcher read statements from a typed script (the Invitation and Consent Statement) to explain the nature and purpose of the research study and to ensure consistency and accuracy of communication from group to group. It was made clear that the survey was not a "company" survey. Also, the researcher explained the general instructions, directions for completing the survey forms, and coding procedures. Finally, the researcher stated that participation in the research study was strictly voluntary and that the participants would be guaranteed complete anonymity. Coding was only necessary to match the department (i.e., production or shipping) and the work shift (first, second, or third) of the followers with department and shift of their leaders. In this way the followers were accurately grouped and matched with their leaders to form a valid unit of analysis.

To minimize potential effects of follower and leader bias or influence, employees and their supervisors completed the survey instruments separately. Although all potential respondents had the option to participate, high response rates were experienced because of the convenience and confidentiality factors: the respondents were given time to complete the surveys during their normal work shift, and subject anonymity and confidentiality were assured.

Prior to beginning the survey, all potential research participants were cordially informed that if anyone decided not to participate or
complete the questionnaires, they could simply leave at any time, return their unscored or incomplete survey to the researcher, or discard it in the wastebasket. After completing the survey, each participant sealed his or her survey forms in the confidential envelope provided and placed the envelope into the secured box made available by the researcher.

Research Hypotheses

Based on the research questions stated in Chapter I and elaborated upon in Chapter II, the following operationalized hypotheses are presented.

Leader Style, Leader Behavior and Leadership Paradigm

*Research Question 1*: Is there a relationship between leader style and reported follower descriptions of leader behavior?

*Research Question 2*: Is there a relationship between leader style and leader leadership paradigm?

*Research Question 3*: Is leader leadership paradigm related to follower descriptions of leader behavior?

The Operational Hypotheses are:

*Operational Hypothesis 1*: There will be no difference between the proportion of “people-oriented” and “task-oriented” leaders who are categorized within “traditional” or “contemporary” leader behavior roles. The null hypothesis ($H_0: P_{PO} = P_{TO}$) will be tested using a chi-square nonparametric test of independence at an alpha level of .05.
Operational Hypothesis 2: There will be no difference between the proportion of “people-oriented” and “task-oriented” leaders who are categorized within “industrial” or “postindustrial” leadership paradigm groups. The null hypothesis ($H_0: \Pr_O = \Pr_T$) will be tested using a chi-square nonparametric test of independence at an alpha level of .05.

Operational Hypothesis 3: There will be differences between the proportion of “industrial” leadership paradigm and “postindustrial” leadership paradigm leaders who are categorized within “traditional” or “contemporary” leader behavior roles. The null hypothesis ($H_0: \Pr_{LP} = \Pr_{PLP}$) will be tested using a chi-square nonparametric test of independence at an alpha level of .05.

Leader Characteristics, Planned Change and Organizational Culture

Research Question 4: Is there a relationship between followers’ perceived levels of planned change efficacy and their leader’s degree of knowledge regarding contemporary change management principles?

Research Question 5: Are there relationships between followers’ perceived levels of organizational culture potency and planned change efficacy, and both leader style and leader behavior?

Research Question 6: Are there relationships between followers’ perceived levels of organizational culture potency and planned change efficacy, and both leader style and leadership paradigm?

Research Question 7: Given a relationship between followers’ perceived levels of planned change efficacy and perceived levels of organizational culture potency, will followers’ perceived level of
organizational culture potency be related to leader behavior and leader leadership paradigm when the influence of planned change efficacy is removed?

The Operational Hypotheses are:

Operational Hypothesis 4: There will be a direct relationship between follower perceived mean levels of planned change efficacy and leader degree of knowledge regarding contemporary change management principles. The null hypothesis ($H_0: P = 0$) will be tested by using the Pearson correlation coefficient for a one sample case at an alpha level of .05.

Operational Hypothesis 5: When comparing follower perceived levels of shared beliefs and enacted norms (organizational culture potency) and planned change efficacy, there will be differences between the mean scores for groups with “contemporary” behavior role leaders and “traditional” behavioral role leaders. There will be no interaction effects between leader behavior and leader style on follower perceived mean levels of shared beliefs, enacted norms, and planned change efficacy. The null hypotheses ($H_{01}: M_{OCP1} = M_{OCP2}$), ($H_{02}: M_{PCE1} = M_{PCE2}$), ($H_{03}: all (M - M + M) = 0$) will be tested using a two-factor analysis of variance procedure ANOVA at an alpha level of .05.

Operational Hypothesis 6: When comparing follower perceived levels of shared beliefs and enacted norms (organizational culture potency) and planned change efficacy, there will be differences between the mean team scores for groups with “industrial” leadership paradigm leaders, and “postindustrial” leadership paradigm leaders. There will be
no interaction effects between leader leadership paradigm and leader style on follower perceived mean levels of shared beliefs, enacted norms, and planned change efficacy. The null hypotheses (H\textsubscript{01}: M\textsubscript{OCP} = M\textsubscript{OCP}), (H\textsubscript{02}: M\textsubscript{PCE} = M\textsubscript{PCE}), and (H\textsubscript{03}: all (M - M + M) = 0) will be tested using a two-factor analysis of variance procedure ANOVA at an alpha level of .05.

**Operational Hypothesis 7:** First, the relationship between follower perceived levels of planned change efficacy and follower perceived levels of organizational culture potency (shared beliefs and enacted norms) will be tested. If the null hypothesis is upheld, no further tests are indicated. The null hypothesis (H\textsubscript{0}: P\textsubscript{PCE} - P\textsubscript{OCP} = 0) will be tested using the Pearson correlation coefficient for dependent samples at the alpha level of .05. If the null is not upheld, the following hypothesis will be tested: There is no difference in follower perceived mean levels of shared beliefs and enacted norms across types of leader behavior and leader leadership paradigm when the influence of planned change efficacy is removed. The null hypotheses (H\textsubscript{01}: M\textsuperscript{'}\textsubscript{OCP1} = M\textsuperscript{'}\textsubscript{OCP2}); (H\textsubscript{02}: M\textsuperscript{'}\textsubscript{OCP1} = M\textsuperscript{'}\textsubscript{OCP2}); and (H\textsubscript{03}: all M' - M' + M' = 0) will be tested using the analysis of covariance procedure ANCOVA for adjusted means at the alpha level of .05.

**Data Analysis**

This final section will describe the statistical tests that were used to address the hypotheses and research questions. For each of the statistical tests, a short statement will discuss the nature of the particular hypothesis, the variables, and the level of measurement.
The data yielded by the LPC, the LBS, and the LDQ permitted the leaders to be classified into dichotomous groups. The chi-square nonparametric test of independence was used to statistically test whether two variables are independent. Hypotheses 1, 2, and 3 considered the relationships between leader characteristics. The variables, all measured on the nominal scale, included “people-oriented” and “task-oriented” leader style measured by the LPC, “contemporary” and “traditional” leader behavior measured by the LBS, and “industrial” and “postindustrial” leadership paradigm measured by the LDQ. To test the assumption that there is no relationship between two variables in the total population, the chi-square test of independence is an appropriate measure of association for the analysis of two nominal variables.

The data yielded by the CEQ and MCQ permitted levels of follower perceived planned change efficacy and levels of leader degree of knowledge of contemporary change management principles to be measured and compared. The Pearson product-moment correlation was used to assess the strength of the linear relationship between two variables. Hypothesis 4 examined the relationship between the variables follower perceived levels of planned change efficacy and leader degree of knowledge about contemporary change management principles which are both measured on the interval scale. To test Hypothesis 4 that follower perceived levels of planned change efficacy is directly related to leader degree of knowledge of contemporary change management principles, the appropriate statistical test Pearson product-moment
correlation was used to describe the extent to which two variables are related by assessing the strength of the linear relationship between the two variables.

The data yielded by the OBQ, ONQ, and CEQ permitted the levels of follower perceptions regarding organizational culture potency and planned change efficacy to be measured. The two-factor analysis of variance procedure ANOVA was used to determine whether a discrete factor has an effect on the mean of a dependent variable, and whether the effect of the discrete factor depends on the value of another factor. Hypotheses 5 and 6 considered the factors of leader behavior and leadership paradigm and their effect on the dependent variables of follower perceived levels of organizational culture potency and planned change efficacy. The hypotheses also considered whether the effects of leader behavior and leadership paradigm depend upon the levels of leader style. The variables measured on the interval scale included the degree of “organizational culture potency” as measured by the OBQ and ONQ, and the degree of “planned change efficacy” as measured by the CEQ. To test Hypothesis 5 that leader behavior is related to perceived levels of organizational culture potency and planned change efficacy, and does not interact with levels of leader style; and to test Hypothesis 6 that leader leadership paradigm is related to perceived levels of organizational culture potency and planned change efficacy, and does not interact with levels of leader style, the appropriate statistical test two-factor ANOVA was used to determine whether each factor has an effect.
on the dependent variable and whether the effect of one factor depends on the levels of another factor.

The data yielded by the CEQ, the OBQ, and the ONQ permitted levels of follower perceived planned change efficacy and levels of follower perceived organizational culture potency to be measured and compared. The Pearson product-moment correlation was used to assess the strength of the linear relationship between two variables. Hypothesis 7 examined the relationship between follower perceived levels of planned change efficacy and follower perceived levels of organizational culture potency. The variables planned change efficacy and organizational culture potency are both measured on the interval scale. To test Hypothesis 7 that follower perceived level of planned change efficacy is directly related to follower perceived level of organizational culture potency, the appropriate statistical test Pearson product-moment correlation was used to describe the extent to which two variables are related by assessing the strength of the linear relationship between the two variables.

Finally, given a relationship between planned change efficacy and organizational culture potency, Hypothesis 7 also tested the relationship between both: leader behavior and perceived levels of organizational culture potency; and leader leadership paradigm and perceived levels of organizational culture potency when the dependent variables are adjusted for levels of planned change efficacy. The variables leader behavior and leader leadership paradigm are measured on the nominal scale. The variables organizational culture potency and planned change
efficacy are measured on the interval scale. To test Hypothesis 7, the appropriate statistical test analysis of covariance procedure ANCOVA was used to control for the effects of an mediating variable, called the covariate, by partitioning out the variation attributed to this variable to better investigate the effects of the primary independent variables.

Summary

This chapter presented and explained the various dimensions of this specific research study by discussing the research design undertaken to address the research questions and hypotheses. The chapter described the organization under investigation and presented the research sample unit of analysis, the instrumentation and measures, the data-gathering procedures, and finally, the data analysis section.

A cross-sectional approach was employed in this exploratory study focusing on the group unit level of analysis using survey methods to gather quantitative data. The study investigated followers and their leaders in an organization implementing total quality and high performance principles and practices to measure leader characteristics and to study their relationships to follower perceptions regarding planned change and organizational culture. This study was exploratory in nature to address the paucity of research regarding the present reconceptualization of the leadership construct, and the preliminary explication of the leadership-culture-change linkage.
CHAPTER IV

RESEARCH FINDINGS AND DATA ANALYSES

Examined in this chapter are the results of the research study. Detailed are the procedures used in the data analysis and the statistical results. This chapter will begin with a section briefly describing the research sample so as to provide information about the basic unit of analysis in this study. Following the description of the research sample, the results of the data analyses will be reported, organized in a manner to address the research questions and hypotheses presented in Chapters I and III. Lastly, a review of the statistical procedures and brief summary statements regarding the main findings will be presented.

Research Sample Description

The research sample for this study consisted of 689 subjects employed at 10 various manufacturing plants. The manufacturing sites were selected from the Central and North Central Region of the research organization and represent five Midwest states. Two manufacturing plants from each of the following states participated in this study: Ohio, Michigan, Illinois, Minnesota, and Wisconsin.

The 689 subjects were made up of two subgroups: 615 employees (89.3%) referred to as followers in this study, and 74 supervisors (10.7%) referred to as leaders in this study. Followers and leaders represented
four specific manufacturing departments: maintenance, shipping, finishing, and corrugating. The followers were distributed among the four departments in this manner: maintenance—59 (9.6%), shipping—54 (8.8%), finishing—329 (53.5%), and corrugating—173 (28.1%). The leaders were distributed among the four departments in this manner: maintenance—10 (13.5%), shipping—8 (10.8%), finishing—28 (37.8%), and corrugating—28 (37.8%).

Both leader and follower survey respondents represented all three of the work shifts scheduled and operating in the plants. First shift (7:00 a.m.—3:00 p.m.) represented 41% of the follower and 51.4% of the leader respondents. Second shift (3:00 p.m.—11:00 p.m.) represented 30.5% of the follower and 25.7% of the leader respondents. Third shift (11:00 p.m.—7:00 a.m.) represented 28.5% of the follower and 22.9% of the leader respondents. At each of the manufacturing sites, all of the leaders and followers who reported for the administration of the surveys on all three shifts participated in the research study.

As discussed in Chapter III, the research design focuses on exploring relationships between leader characteristics and follower perceptions in a dynamic organizational environment measured at the group level of analysis. It is not uncommon to consider a group as the unit of observation and measure at the group level of analysis when leader-follower relationships and cultural constructs are under investigation. When measuring and defining leader characteristics, leader self-reports have consistently shown to be biased. It is therefore generally accepted and usually observed in research to survey the
leader's subordinates and aggregate the group data. Similarly, perceptions in a complex social environment require an analysis of cognitions at the group or organizational level of analysis because culture is viewed as a set of shared meanings shaped by values, norms, and assumptions learned by a group over time through social learning processes.

All of the criteria established for satisfying a group or team level of analysis were met: (a) the followers reporting to individual leaders were recognized as formal work teams, (b) the teams shared responsibility for an identifiable product or work process, (c) the teams understood their goals and performance measures, (d) the teams were familiar with and actively engaged in the process of implementing the organizational change model, and (e) followers had worked on their team at least 6 months.

Finally, leader and follower respondents were organized into leader-follower groups creating a total of 74 natural work teams representing each of the four manufacturing departments across three work shifts. With regard to identifying a leader-follower group and qualifying it as a legitimate sample work team, all of the 74 natural work teams met the unit of observation criteria by having 50% or more of the team members and the team leader successfully complete the survey instruments.
Description of Results

The analysis of the research data concerning each of the hypotheses is reported in this section. These hypotheses test the leadership, planned change, and organizational culture variables that are germane to this dissertation. They were developed from an extensive review of the literature and the professional experience and observations of the researcher.

The continuous variable descriptive statistics showing means and standard deviations and the Pearson product-moment correlation coefficient matrix indicating significant relationships between the variables are presented in Table 3.

Table 3

Means, Standard Deviations, and Correlation Coefficients Among Continuous Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cases</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of Change</td>
<td>74</td>
<td>60.57</td>
<td>10.91</td>
<td>—</td>
<td>.504**</td>
<td>.401**</td>
<td>.728**</td>
</tr>
<tr>
<td>Enacted Norms</td>
<td>74</td>
<td>2.89</td>
<td>.238</td>
<td></td>
<td>.699**</td>
<td>.594**</td>
<td></td>
</tr>
<tr>
<td>Shared Beliefs</td>
<td>74</td>
<td>3.07</td>
<td>.206</td>
<td></td>
<td></td>
<td>.507**</td>
<td></td>
</tr>
<tr>
<td>Planned Change Efficacy</td>
<td>74</td>
<td>2.97</td>
<td>.322</td>
<td></td>
<td></td>
<td></td>
<td>—</td>
</tr>
</tbody>
</table>

**Significant at the .01 level.
Hypothesis 1: There will be no differences between the proportion of “people-oriented” and “task-oriented” leaders who are categorized within “traditional” or “contemporary” leader behavior roles.

To test the first hypothesis concerning the relationship between leader style and reported follower descriptions of leader behavior, a two-way contingency table analysis was conducted to evaluate whether the proportion of supervisors in both of the leader style categories are the same within the two leader behavior classifications. Hypothesis 1 posited that there would be no differences between the proportion of “people-oriented” and “task-oriented” leaders who are categorized within “traditional” or “contemporary” leader behavior roles. The null hypothesis was tested using a chi-square nonparametric test of independence at the .05 alpha level.

The cross-tabulation summarized proportions for people-oriented and task-oriented leader styles within the traditional leader behavior category, 51.2% versus 54.5%; and within the contemporary leader category, 48.8% versus 45.5%. As posited, no differences were found between the proportions of leader styles within leader behavior roles. The Pearson chi-square was calculated $\chi^2(1, N = 74) = .081$, with an exact probability of .776. The null hypothesis was not rejected, indicating that in this study, leader style was not associated with reported leader behavior descriptions. Table 4 presents the results of the test for Hypothesis 1.
Table 4
Leader Behavior and Leader Style Cross-tabulation

<table>
<thead>
<tr>
<th>Leader Behavior</th>
<th>Task-oriented</th>
<th>People-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>21 (51.2%)</td>
<td>18 (54.5%)</td>
</tr>
<tr>
<td>Contemporary</td>
<td>20 (48.8%)</td>
<td>15 (45.5%)</td>
</tr>
</tbody>
</table>

$X^2 = .776^*$

*Significant at the .05 level.

**Hypothesis 2**: There will be no differences between the proportion of “people-oriented” and “task-oriented” leaders who are categorized as “industrial” or “postindustrial” in leadership paradigm.

To test the second hypothesis concerning the relationship between leader style and leadership paradigm, a two-way contingency table analysis was conducted to evaluate whether the proportion of supervisors in both of the leader style categories is the same within the two leadership paradigm classifications. Hypothesis 2 posited that there would be no differences between the proportion of “people-oriented” and “task-oriented” leaders who are categorized within “industrial” or “postindustrial” leadership paradigms. The null hypothesis was tested using a chi-square nonparametric test of independence at the .05 alpha level.

The cross-tabulation summarized proportions for people-oriented and task-oriented leader styles within the industrial leadership paradigm category, 63.4% versus 63.6%; and within the postindustrial leadership category, 36.6% versus 36.4%. As posited, no differences were
found between the proportions of leader styles within leadership paradigms. The Pearson chi-square was calculated $\chi^2(1, N = 74) = .000$, with an exact probability of .984. The null hypothesis was not rejected, indicating that in this study, leader style was not associated with reported leaders' leadership paradigm. Table 5 presents the results of the test for Hypothesis 2.

Table 5

<table>
<thead>
<tr>
<th>Leadership Paradigm</th>
<th>Leader Style</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Task-oriented</td>
<td>People-oriented</td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>26 (63.4%)</td>
<td>21 (63.6%)</td>
<td></td>
</tr>
<tr>
<td>Postindustrial</td>
<td>15 (36.6%)</td>
<td>12 (36.9%)</td>
<td></td>
</tr>
</tbody>
</table>

*$\chi^2 = .776^*$

*Significant at the .05 level.

Hypothesis 3: There will be differences between the proportions of "industrial" leadership paradigm and "postindustrial" leadership paradigm leaders who are categorized within "traditional" or "contemporary" leader behavior roles.

To test the third hypothesis concerning the relationship between leadership paradigm and leader behavior, a two-way contingency table analysis was conducted to evaluate whether the proportion of supervisors in both of the leadership paradigm categories are the same within the two leader behavior classifications. Hypothesis 3 posited that differences would exist between the proportion of "industrial" and
"postindustrial" leaders who are categorized within "traditional" or "contemporary" leader behavior roles. The null hypothesis was tested using a chi-square nonparametric test of independence at the .05 alpha level.

The cross-tabulation summarized proportions for industrial and postindustrial leadership paradigms within the traditional leader behavior role category, 72.3% versus 18.5%; and within the contemporary leader behavior role category, 27.7% versus 81.5%. As predicted, significant differences were found between the proportions of leadership paradigms within leader behavior roles. The Pearson chi-square was calculated $\chi^2(1, N = 74) = 19.93$, with an exact probability of .000. The null hypothesis was rejected, indicating that in this study, leadership paradigm was associated with leader behavior. Table 6 presents the results of the test for Hypothesis 3.

Table 6
Leader Behavior and Leadership Paradigm Cross-tabulation

<table>
<thead>
<tr>
<th>Leader Behavior</th>
<th>Leadership Paradigm</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Industrial</td>
<td>Postindustrial</td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>34 (72.3%)</td>
<td>5 (18.5%)</td>
<td></td>
</tr>
<tr>
<td>Contemporary</td>
<td>13 (27.7%)</td>
<td>22 (81.5%)</td>
<td></td>
</tr>
</tbody>
</table>

*$\chi^2 = .776^*$

*Significant at the .05 level.

Thus, the initial assertion posed by the researcher in this dissertation regarding relationships between leader characteristics of
“style,” “behavior,” and “paradigm” was addressed in the first three hypotheses. The results of Hypotheses 1, 2, and 3 support the argument that “leader style” is distinct and independent from both “leader behavior” and “leader paradigm,” and that “leader behavior” and “leadership paradigm” are related. The next assertion, regarding the relationship between followers’ perceptions of planned change efficacy and leaders’ knowledge of contemporary change management principles, is addressed in Hypothesis 4.

**Hypothesis 4:** There will be a direct relationship between follower perceived mean levels of planned change efficacy and leader degree of knowledge regarding contemporary change management principles.

To test the fourth hypothesis concerning the relationship between follower perceived levels of planned change efficacy and leader level of knowledge regarding contemporary change management, the Pearson product-moment correlation was used to evaluate whether a linear relationship exists between the variables “planned change efficacy” and “knowledge of change management.” Hypothesis 4 posited that the relationship between the two variables would be rather high and in the positive direction. The hypothesis was tested using the Pearson product-moment correlation coefficient for a one sample case at the .05 alpha level.

The descriptive statistics table (Table 3) summarized mean scores and standard deviations for the two variables: planned change efficacy $M = 2.97, SD = .322$; and knowledge of change management $M = 60.57, SD = 10.91$. As predicted, a strong and positive linear relationship was found
between the two variables. The Pearson correlation coefficient obtained indicated that the relationship between planned change efficacy and knowledge of change management in the sample was positive and statistically significant ($r = .73, p < .01$). Based on the results of this test, the null hypothesis was rejected, confirming that there is a direct relationship between followers' perceived levels of planned change efficacy and leaders' level of knowledge regarding contemporary change management. It can further be concluded in this case that 53% of the variance in planned change efficacy scores can be associated with the variance in knowledge of change management.

Therefore, the second assertion advanced in this dissertation regarding a strong and positive relationship between “leader knowledge of contemporary change management” and follower perceptions of “planned change efficacy” was tested and supported by Hypothesis 4.

The third major assertion which deals with the relationships between organizational culture potency and planned change efficacy, and leader characteristics will be addressed in Hypotheses 5 and 6. Having identified the importance of “leader behavior,” “leader leadership paradigm,” and “leader knowledge of change,” Hypotheses 5 and 6 further investigate the effects of these leader characteristics on “organizational culture potency” and “planned change efficacy.”

Hypothesis 5: When comparing follower perceived levels of shared beliefs, enacted norms, and planned change efficacy, there will be differences between the mean scores for groups with “contemporary” behavior role leaders and “traditional” behavior role leaders. There will
be no differences between leader style groups, and no interaction effects between leader behavior and leader style on follower perceived mean levels of shared beliefs and enacted norms.

To test the fifth hypothesis concerning the relationship between followers' perceived levels of shared beliefs, enacted norms, and planned change efficacy, and both leader style and leader behavior, the univariate two-way analysis procedure ANOVA was used. ANOVA tested whether mean organizational culture potency scores and mean planned change efficacy scores differed across levels of leader style and leader behavior, and whether differences in the dependent variable mean scores between levels of leader behavior varied as a function of levels of leader style. Hypothesis 5 posited that there will be differences in mean shared beliefs, enacted norms, and planned change efficacy scores between followers with "traditional" behavior role leaders and "contemporary" behavior role leaders. However, no differences were posited between leader style groups, and no interaction effects expected between leader behavior and leader style on follower perceived levels of shared beliefs, enacted norms, and planned change efficacy. The two-way analysis of variance evaluated the following: (a) the main effects to determine if the means on the dependent variables differed across levels of the first factor averaging across levels of the second factor, (b) the main effects to determine if the means on the dependent variable differed across levels of the second factor averaging across levels of the first factor, and (c) the interaction effects to determine if the means on the dependent variable
among levels of the first factor varied as a function of the levels of the second factor.

The means, standard deviations, and results of the first two-way ANOVA analyzing the effects of leader style and leader behavior on "enacted norms" mean scores are presented in Table 7. From these analyses, it can be seen that the leader style main effect and the interaction between leader style and leader behavior are not significant. However, as predicted, leader behavior was found to have a significant main effect on follower perceived levels of enacted norms with a probability of .000 tested at an alpha level of .05.

Table 7
Analysis of Variance Between Leader Style and Leader Behavior: Dependent Variable—Enacted Norms

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Style</td>
<td>1</td>
<td>6.00</td>
<td>6.00</td>
<td>.266</td>
<td></td>
</tr>
<tr>
<td>Leader Behavior</td>
<td>1</td>
<td>.705</td>
<td>.705</td>
<td>.000**</td>
<td></td>
</tr>
<tr>
<td>2-way Interaction:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Style and Behavior</td>
<td>1</td>
<td>5.73</td>
<td>5.73</td>
<td>.730</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>70</td>
<td>3.34</td>
<td>4.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>74</td>
<td>621.56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the .01 level.

The means, standard deviations, and results of the second two-way ANOVA analyzing the effects of leader style and leader behavior on "shared beliefs" mean scores are presented in Table 8. From these
analyses, it can be seen that the leader style main effect and the interaction between leader style and leader behavior are not significant. However, as predicted, leader behavior was found to have a significant main effect on follower perceived levels of shared beliefs with a probability of .003 tested at an alpha level of .05.

Table 8

Analysis of Variance Between Leader Style and Leader Behavior: Dependent Variable—Shared Beliefs

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Style</td>
<td>1</td>
<td>.116</td>
<td>.116</td>
<td>.081</td>
<td></td>
</tr>
<tr>
<td>Leader Behavior</td>
<td>1</td>
<td>.356</td>
<td>.356</td>
<td>.003**</td>
<td></td>
</tr>
<tr>
<td>2-way Interaction:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Style and Behavior</td>
<td>1</td>
<td>8.04</td>
<td>8.04</td>
<td>.643</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>70</td>
<td>2.60</td>
<td>3.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>74</td>
<td>699.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the .01 level.

The means, standard deviations and results of the third two-way ANOVA analyzing the effects of leader style and leader behavior on "planned change efficacy" mean scores are presented in Table 9. From these analyses, it can be seen that the leader style main effect and the interaction between leader style and leader behavior are not significant. However, as predicted, leader behavior was found to have a significant main effect on follower perceived levels of shared beliefs with a probability of .030 tested at an alpha level of .05.
**Table 9**

**Analysis of Variance Between Leader Style and Leader Behavior:**  
Dependent Variable—Planned Change Efficacy

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>$df$</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>$F$</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Style</td>
<td>1</td>
<td>.286</td>
<td>.286</td>
<td>.089</td>
<td></td>
</tr>
<tr>
<td>Leader Behavior</td>
<td>1</td>
<td>.471</td>
<td>.471</td>
<td>.030*</td>
<td></td>
</tr>
<tr>
<td><strong>2-way Interaction:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Style and Behavior</td>
<td>1</td>
<td>1.420</td>
<td>1.420</td>
<td>.702</td>
<td></td>
</tr>
<tr>
<td><strong>Error</strong></td>
<td>70</td>
<td>6.75</td>
<td>9.643</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>74</td>
<td>660.192</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level.

**Hypothesis 6:** When comparing follower perceived levels of shared beliefs, enacted norms, and planned change efficacy, there will be differences between the mean scores of groups with “industrial” leadership paradigm leaders, and “postindustrial” paradigm leaders. There will be no differences between leader style groups, and no interaction effects between leader leadership paradigm and leader style on follower perceived mean levels of shared beliefs, enacted norms, and planned change efficacy.

To test the sixth hypothesis concerning the relationship between followers’ perceived levels of shared beliefs, enacted norms, and planned change efficacy, and both leader style and leadership paradigm, the univariate two-way analysis procedure ANOVA was used. ANOVA tested whether mean organizational culture potency scores and mean planned
change efficacy scores differed across levels of leader style and leadership paradigm, and whether differences in the dependent variable mean scores between levels of leadership paradigm varied as a function of levels of leader style. Hypothesis 6 posited that there will be differences in mean organizational culture potency scores and planned change efficacy scores between followers with "industrial" paradigm leaders and "postindustrial" paradigm leaders. However, no differences were posited between leader style groups, and no interaction effects expected between leadership paradigm and leader style on follower perceived levels of organizational culture potency and planned change efficacy. The two-way analysis of variance evaluated the following hypotheses: (a) the main effects to determine if the means on the dependent variables differed across levels of the first factor averaging across levels of the second factor, (b) the main effects to determine if the means on the dependent variable differed across levels of the second factor averaging across levels of the first factor, and (c) the interaction effects to determine if the means on the dependent variable among levels of the first factor varied as a function of the levels of the second factor.

The means, standard deviations, and results of the first two-way ANOVA analyzing the effects of leader style and leadership paradigm on "enacted norms" mean scores are presented in Table 10. From these analyses, it can be seen that the leader style main effect and the interaction between leader style and leadership paradigm are not significant. However, as posited, leadership paradigm was found to have
a significant main effect on follower perceived levels of enacted norms with a probability of .02 tested at an alpha level of .05.

Table 10

Analysis of Variance Between Leader Style and Leadership Paradigm: Dependent Variable—Enacted Norms

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Style</td>
<td>1</td>
<td>.102</td>
<td>.102</td>
<td>.168</td>
<td></td>
</tr>
<tr>
<td>Leadership Paradigm</td>
<td>1</td>
<td>.298</td>
<td>.298</td>
<td>.020*</td>
<td></td>
</tr>
<tr>
<td>2-way Interaction:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Style and Paradigm</td>
<td>1</td>
<td>5.27</td>
<td>5.27</td>
<td>.321</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>70</td>
<td>3.69</td>
<td>5.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>74</td>
<td>621.56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level.

The means, standard deviations, and results of the second two-way ANOVA analyzing the effects of leader style and leadership paradigm on “shared beliefs” mean scores are presented in Table 11. From these analyses, it can be seen that while the leader style main effect was significant with a probability of .047 tested at an alpha level of .05 indicating that leader style exerted some influence on shared belief scores across leadership paradigm types, the interaction between leader style and leadership paradigm was not significant. However, as posited, leadership paradigm was found to have a significant main effect on follower perceived levels of shared beliefs with a probability of .020 tested at an alpha level of .05.
Table 11

Analysis of Variance Between Leader Style and Leadership Paradigm:
Dependent Variable—Shared Beliefs

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leader Style</td>
<td>1</td>
<td>.157</td>
<td>.157</td>
<td>.047*</td>
</tr>
<tr>
<td>Leadership Paradigm</td>
<td>1</td>
<td>.218</td>
<td>.218</td>
<td>.020*</td>
</tr>
<tr>
<td><strong>2-way Interaction:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Style and Paradigm</td>
<td>1</td>
<td>3.99</td>
<td>3.99</td>
<td>.313</td>
</tr>
<tr>
<td><strong>Error</strong></td>
<td>70</td>
<td>2.70</td>
<td>3.86</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>74</td>
<td>699.39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level.

The means, standard deviations and results of the third two-way ANOVA analyzing the effects of leader style and leadership paradigm on “planned change efficacy” mean scores are presented in Table 12. From these analyses, it can be seen that the leader style main effect and the interaction between leader style and leadership paradigm are not significant. However, as posited, leadership paradigm was found to have a significant main effect on follower perceived levels of shared beliefs with a probability of .000 tested at an alpha level of .05.

The third major assertion of the dissertation regarding the relationships between “organizational culture potency” and “planned change efficacy” across levels of “leader style,” “leader behavior,” and “leadership paradigm” was tested and supported by Hypotheses 5 and 6. Having determined a relationship between “organizational culture
potency* and "planned change efficacy," and the saliency of "leader behavior* and "leadership paradigm," the fourth major assertion of the dissertation investigating the moderating effects of "planned change efficacy" on "organizational culture potency" scores across levels of "leader behavior* and "leadership paradigm" will be addressed by Hypothesis 7.

Hypothesis 7: There is no difference in follower perceived mean levels of shared beliefs and enacted norms across the factors of leader behavior and leadership paradigm when the influence of planned change efficacy is removed.

It has been suggested that planned change efficacy influences followers perceptions of organizational culture potency. To test the seventh hypothesis concerning the relationship between followers'
perceived levels of shared beliefs, enacted norms, and both leader behavior and leadership paradigm when the influence of planned change efficacy is removed, the univariate one-way analysis procedure ANCOVA was used. ANCOVA tested whether shared beliefs and enacted norms mean scores differed across levels of leader behavior and leadership paradigm when adjusted for preexisting differences on the covariate “planned change efficacy.”

Based upon the hypothesized relationship between organizational culture and planned change—namely, the moderating influence of “planned change efficacy” on “organizational culture potency,” the use of statistical control was chosen to explain variation in the dependent variable. Considering that the followers in this study have been exposed to the effects of planned change efficacy, ANCOVA will statistically adjust for preexisting differences between groups, thereby increasing the precision of the research. In other words, ANCOVA will adjust dependent variable scores for initial covariate differences between groups.

Before conducting ANCOVA, the following assumptions were tested: (a) that a linear relationship existed between the two dependent variables and the covariate, and (b) that the covariate and the factors did not interact in the prediction of the dependent variables. Having met the assumptions underlying one-way ANCOVA, Hypothesis 7 posited that no differences would be observed in perceived levels of organizational culture potency across the levels of leader behavior and leadership paradigm when the influence of planned change efficacy was removed.
Also, it was speculated that the effects of planned change efficacy would account for preexisting differences in perceived levels of shared beliefs and enacted norms across levels of both leader behavior and leadership paradigm. In other words, the researcher expected to observe no differences in mean “shared beliefs” and “enacted norms” scores for groups with both “traditional” and “contemporary” behavior role leaders, and “industrial” and “postindustrial” leadership paradigm leaders.

The results of the first ANCOVA are displayed in Table 13. First, the unadjusted mean enacted norm scores for traditional and contemporary leader behavior were reported as $M = 2.79$ and $M = 2.99$, respectively. A $t$ test for independent samples evaluated the group means, $t(72) = -3.97, p = .000$, rejecting the null hypothesis of no differences between the traditional and contemporary groups prior to adjusting for planned change efficacy.

Table 13

Analysis of Covariance: Enacted Norms by Leader Behavior Group:
Covariate—Planned Change Efficacy

<table>
<thead>
<tr>
<th>Group</th>
<th>Unadjusted Means</th>
<th>95% Confidence Interval</th>
<th>Adjusted Means</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>2.79</td>
<td>(2.74, 2.85)</td>
<td>2.82</td>
<td>(2.77, 2.88)</td>
</tr>
<tr>
<td>Contemporary</td>
<td>2.99</td>
<td>(2.95, 3.04)</td>
<td>2.96</td>
<td>(2.90, 3.02)</td>
</tr>
</tbody>
</table>

$t = -3.967$  \hspace{1cm} $F = 9.58$  \hspace{1cm} $\eta^2 = .12$

$p = .000^{**}$  \hspace{1cm} $p = .003^{**}$

**Significant at the .01 level.
ANCOVA then evaluated the null hypothesis that the group enacted norms mean scores adjusted for initial covariate differences are equal. The results of the analysis indicated that this hypothesis should be rejected, $F(1, 71) = 9.58, p = .003$, and the partial $\eta^2$ of .12 suggested a moderate relationship between leader behavior and enacted norms controlling for planned change efficacy. This analysis assessed the differences between the adjusted enacted norms means for the traditional and contemporary leader groups which are reported as 2.82 and 2.96, respectively, and found the means to be significantly different. This finding did not support the lack of a relationship posited in Hypothesis 7.

The results of the second ANCOVA are displayed in Table 14. First, the unadjusted mean shared beliefs scores for traditional and contemporary leader behaviors were reported as $M = 2.99$ and $M = 3.14$, respectively. A $t$ test for independent samples evaluated the group means, $t(72) = -3.18, p = .002$, rejecting the null hypothesis of no differences between the traditional and contemporary groups.

ANCOVA then evaluated the null hypothesis that the group shared beliefs mean scores adjusted for initial covariate differences are equal. The results of the analysis indicated that this hypothesis should be rejected, $F(1, 71) = 5.315, p = .024$, and the partial $\eta^2$ of .07 suggested a moderate relationship between leader behavior and shared beliefs controlling for planned change efficacy. This analysis assessed the differences between the adjusted shared beliefs means for the traditional and contemporary leader groups which were reported as 3.02 and 3.12,
Table 14
Analysis of Covariance: Shared Beliefs by Leader Behavior Group:
Covariate—Planned Change Efficacy

<table>
<thead>
<tr>
<th>Group</th>
<th>Unadjusted Means</th>
<th>95% Confidence Interval</th>
<th>Adjusted Means</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>2.99</td>
<td>(2.96, 3.03)</td>
<td>3.02</td>
<td>(2.96, 3.08)</td>
</tr>
<tr>
<td>Contemporary</td>
<td>3.14</td>
<td>(3.09, 3.20)</td>
<td>3.12</td>
<td>(3.06, 3.18)</td>
</tr>
</tbody>
</table>

$t = -3.197$  
$F = 5.315$  
$\eta^2 = .07$

$p = .002^{**}$  
$p = .024^*$

*Significant at the .05 level.  
**Significant at the .01 level.

respectively, and found the means to be significantly different. This finding did not support the lack of a relationship posited in Hypothesis 7.

The results of the third ANCOVA are displayed in Table 15. First, the unadjusted mean enacted norms scores for industrial and postindustrial leadership paradigm were reported as $M = 2.98$, respectively. A t test for independent samples evaluated the group means, $t(72) = -2.50$, $p = .015$, rejecting the null hypothesis of no differences between the industrial and postindustrial groups prior to adjusting for planned change efficacy.

ANOVA then evaluated the null hypothesis that the group enacted norms mean scores adjusted for initial covariate differences are equal. The results of the analysis indicated that this hypothesis could not be rejected, $F(1, 71) = .272$, $p = .603$, and the partial $\eta^2$ of .004 suggested a very weak relationship between leadership paradigm and enacted norms controlling for planned change efficacy. This analysis assessed the
### Table 15
Analysis of Covariance: Enacted Norms by Leadership Paradigm Group: Covariate—Planned Change Efficacy

<table>
<thead>
<tr>
<th>Group</th>
<th>Unadjusted Means</th>
<th>95% Confidence Interval</th>
<th>Adjusted Means</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial</td>
<td>2.84</td>
<td>(2.79, 2.88)</td>
<td>2.88</td>
<td>(2.82, 2.94)</td>
</tr>
<tr>
<td>Postindustrial</td>
<td>2.98</td>
<td>(2.91, 3.04)</td>
<td>2.91</td>
<td>(2.83, 2.98)</td>
</tr>
</tbody>
</table>

\[
t = -2.498
\]

\[
F = .272
\]

\[
\eta^2 = .004
\]

\[
p = .015^*
\]

\[
p = .603
\]

*Significant at the .05 level.

Differences between the adjusted enacted norms means for the industrial and postindustrial leadership groups, which were reported as 2.88 and 2.90, respectively, and found no significant difference. This finding supported the lack of a relationship posited in Hypothesis 7.

The results of the fourth ANCOVA are displayed in Table 16. First, the unadjusted mean shared beliefs scores for industrial and postindustrial leadership paradigm are reported as \( M = 3.02 \) and \( M = 3.14 \), respectively. A \( t \) test for independent samples evaluated the group means, \( t(72) = -2.47, p = .016 \), rejecting the null hypothesis of no differences between the industrial and postindustrial groups.

ANCOVA then evaluated the null hypothesis that the group shared beliefs mean scores adjusted for initial covariate differences are equal. The results of the analysis indicated that this hypothesis could not be rejected, \( F(1, 71) = .684, p = .411 \), and the partial \( \eta^2 \) of .01 suggested a weak relationship between leadership paradigm and shared beliefs.
Table 16

Analysis of Covariance: Shared Beliefs by Leadership Paradigm Group: Covariate—Planned Change Efficacy

<table>
<thead>
<tr>
<th>Group</th>
<th>Unadjusted Means</th>
<th>95% Confidence Interval</th>
<th>Adjusted Means</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial</td>
<td>3.02</td>
<td>(2.99, 3.06)</td>
<td>3.05</td>
<td>(2.99, 3.11)</td>
</tr>
<tr>
<td>Postindustrial</td>
<td>3.14</td>
<td>(3.08, 3.20)</td>
<td>3.09</td>
<td>(3.02, 3.17)</td>
</tr>
</tbody>
</table>

$t = -2.468$  \[ F = .684 \]

\[ \eta^2 = .01 \]

$p = .016^*$  \[ p = .411 \]

*Significant at the .05 level.

controlling for planned change efficacy. This analysis assessed the differences between the adjusted enacted norms means for the industrial and postindustrial leadership groups which were reported as 3.05 and 3.09, respectively, and found no significant difference. This finding supported the relationship posited in Hypothesis 7.

Summary of Statistical Procedures and Findings

The purpose of this investigation was to examine and explore the dynamic relationships between leaders' style, behavior, leadership paradigm, and knowledge of change management and their followers' perceptions of planned change efficacy and organizational culture potency in a manufacturing organization. The study investigated work groups and their leaders in a dynamic manufacturing organization implementing a total quality and high performance change initiative. The research design allowed for the study of leader characteristics by
having the leaders complete a leader style instrument, a change management questionnaire, and leadership definition survey. The followers also completed a survey describing their leader's behavior. Also, the research design allowed for the study of follower perceptions by having work group members respond to a planned change efficacy questionnaire and two organizational culture potency questionnaires, the first measuring shared beliefs and the second measuring enacted norms. Survey data were analyzed with the statistical software program SPSS for Windows (Green, Salkind, & Akey, 1997). Appropriate inferential statistical tests were utilized to analyze the survey data collected in this study for the purposes of drawing conclusions from the sample observations and making assertions about the population (Babbie, 1992; Hinkle, Wiersma & Jurs, 1988; Huitema, 1980).

Data yielded from the LPC instrument measuring leader style, the LBS instrument measuring leader behavior, and the LDQ instrument measuring leadership paradigm were used to classify leaders into dichotomous groups. Seventy-four leaders participated in this research study ($n = 74$). Regarding leader style, 41 leaders (55.4%) were identified as "task oriented" and 33 (44.6%) as "people oriented." Also, regarding leader behavior role, 39 leaders (52.7%) were described as "traditional" and 35 (47.3%) as "contemporary." With regard to leadership paradigm, 47 leaders (63.5%) were categorized as "industrial" and 27 (36.5%) as "postindustrial." The chi-square nonparametric test of independence was used to statistically test the relationships between these leader characteristics. Results of the chi-square tests confirmed the propositions
suggested by Hypotheses 1, 2, and 3 concerning the relationships between leader style, leader behavior, and leader leadership paradigm.

The CEQ instrument measured followers’ perceptions of planned change efficacy, and the MCQ instrument measured leaders’ level of knowledge of contemporary change management. Both measures yielded data used to analyze the relationship between leader levels of change knowledge and follower perceived levels of change efficacy. The MCQ results produced a “knowledge of change management” mean score of $M = 60.57$ with a standard deviation of $SD = 10.91$. The CEQ results produced a “planned change efficacy” mean score of $M = 2.9697$ with a standard deviation of $SD = .3219$. The Pearson product-moment correlation was used to statistically test the linear relationship between leader levels of knowledge regarding change management and follower perceptions regarding the efficacy of the planned change initiative. Results of the Pearson product-moment correlation tests confirmed the predicted direct relationship between the two variables suggested by Hypothesis 4.

The OBQ and ONQ instruments measured follower perceptions of organizational culture potency. Both the OBQ and ONQ measures yielded data used to analyze the relationships between organizational culture potency, planned change efficacy, leader style, and leader behavior. The OBQ results measuring “shared beliefs” produced a mean score of $M = 3.067$ with a standard deviation of $SD = .206$. The ONQ results measuring “enacted norms” produced a mean score of $M= 2.889$ with a standard deviation of $SD = .238$. The two-factor analysis of
variance procedure ANOVA was used to statistically test whether mean OBQ and ONQ scores differed across the two types of leader style ("task-oriented" and "people-oriented") and the two types of leader behavior ("traditional" and "contemporary"), and whether the differences in the dependent variable mean scores between types of leader behavior varied as a function of leader styles. ANOVA was also used to statistically test whether mean OBQ and ONQ scores differed across levels of leader style and leadership paradigm, and whether the differences in the dependent variable mean scores between levels of leadership paradigm varied as a function of levels of leader style.

Results of the two-factor analysis of variance procedure ANOVA confirmed the predicted presence of main effects for leader behavior and leadership paradigm on organizational culture potency and planned change efficacy scores. Further, contrary to the predicted relationship, ANOVA found the presence of a leader style main effect on the shared beliefs dimension of organizational culture. In light of the fact that the research data provides substantial evidence indicating the overall weak influence of leader style, this singular relationship may be attributed to chance. Also confirmed was the predicted absence of interaction effects between both leader behavior and leader style, and leadership paradigm and leader style as suggested by Hypotheses 5 and 6.

The OBQ, ONQ, and CEQ instruments yielded data to analyze the relationships between planned change efficacy and organizational culture potency scores. The Pearson product-moment correlation was used to statistically test the linear relationship between planned change
efficacy and organizational potency. Results of the Pearson product-moment correlation tests confirmed a direct relationship between the two variables. To further analyze linear relationships between the dependent variables, the Pearson product-moment correlation matrix indicated significant direct correlations among MCQ, OBQ, ONQ, and CEQ scores.

Thus, it was determined that both leader behavior and leadership paradigm are distinct and independent of leader style, and that leader behavior and leadership paradigm are related. Further confirmed was a strong and positive relationship between leader knowledge of contemporary change management and follower perceptions of planned change efficacy, as were the posited relationships between organizational culture potency and planned change efficacy across levels of leader style, leader behavior, and leadership paradigm.

Finally, having determined a relationship between organizational culture potency and planned change efficacy, and the saliency of leader behavior and leadership paradigm, the moderating effects of planned change efficacy on organizational culture potency scores across types of leader behavior and leadership paradigm were tested. Organizational culture potency scores across types of leader behavior and leadership paradigm were analyzed when the influence of planned change efficacy scores were removed. The analysis of covariance procedure ANCOVA was used to test whether mean shared beliefs and enacted norms scores differed between types of leader behavior and leadership paradigm when adjusted for differences in planned change efficacy scores. The homogeneity-of-slopes assumption was also tested to rule out interaction
effects between the dependent variable organizational culture potency and the covariate planned change efficacy. The analysis of covariance procedure ANCOVA produced two sets of results. The first set of results assessing the differences between the adjusted organizational culture potency mean scores for the traditional and contemporary leader behavior groups found the means to be significantly different. The second set of results assessing the differences between the adjusted organizational culture potency mean scores for the industrial and postindustrial leadership paradigm groups found no significant difference.

Summary

Chapter IV examined the results of the research study detailing the procedures used in the data analysis and the statistical results. This chapter began with a section describing the research sample to provide information about the basic unit of analysis. Following the description of the research sample, the results of the data analyses were reported organized in a manner to address the research questions and hypotheses. The chapter concluded with a review of the statistical procedures and a brief summary regarding the main research findings.

Chapter V will summarize the study and address its limitations. In Chapter V, the researcher will also discuss interpretations of the findings, conclusions drawn from the findings, and recommendations for future research.
CHAPTER V

DISCUSSION

Chapter V contains a comprehensive discussion of the research. This concluding chapter begins by presenting an overview of the study and continues with the following elements: (a) interpretations and implications of each finding, (b) limitations of the study, (c) recommendations for future research, and (d) conclusion.

Overview

The present study explored the relationships between leader characteristics, planned change, and organizational culture in a manufacturing organization implementing a high performance work system change initiative. The problem statement of this dissertation addressed critical organizational concerns as well as immediate business issues presently facing companies in this new economic era. Specific research questions were based upon an in-depth review of the literature and the professional observations of the researcher.

This dissertation investigated the relationships between leader style, leader behavior, leader leadership paradigm, leader knowledge of change, and followers' perceptions of organizational culture potency and planned change efficacy in a manufacturing organization actively engaged in a planned change initiative. The study intended to identify
salient features of contemporary leadership and explore relationships between leader characteristics and followers' perceptions of organizational culture potency and planned change efficacy in order to contribute to the reconceptualization of a contemporary leadership construct and the explication of the leadership-culture-change linkage.

To achieve the objective of this exploratory study, the researcher sought to gain insights into the following research questions:

1. Is there a relationship between leader style and reported follower descriptions of leader behavior?
2. Is there a relationship between leader style and leader leadership paradigm?
3. Is leader leadership paradigm related to follower descriptions of leader behavior?
4. Is there a relationship between followers' perceived levels of planned change efficacy and the leader's degree of knowledge regarding contemporary change management principles?
5. Are there relationships between followers' perceived levels of organizational culture potency and planned change efficacy, and both leader style and leader behavior?
6. Are there relationships between followers' perceived levels of organizational culture potency and planned change efficacy, and both leader style and leadership paradigm?
7. Will followers' perceived levels of organizational culture potency be related to leader behavior and leader leadership paradigm when the influence of planned change efficacy is removed?
The subjects for this study were 74 supervisors who constituted the leaders, and 615 employees who constituted the followers at 10 manufacturing plants in the research organization. Leader and follower respondents were organized into their respective leader-follower groups, creating a total of 74 natural work teams representing four manufacturing departments across three work shifts. A group level unit of analysis using survey methods was used in this research design. Leader data were collected from supervisors who completed the Least Preferred Co-Worker Scale (LPC)—the leader style instrument, the Leadership Definition Questionnaire (LDQ)—the leadership paradigm identification instrument, and the Managing Change Questionnaire (MCQ)—the knowledge of contemporary change instrument. The followers also provided data related to leader characteristics by completing the Leader Behavior Survey (LBS)—the leader behavior description instrument. Follower data were collected from employees who completed the Change Efficacy Questionnaire (CEQ)—the planned change effectiveness instrument, and the two Organizational Culture Potency instruments: the Organizational Beliefs Questionnaire (OBQ)—measuring the intensity of shared beliefs, and the Organizational Norms Questionnaire (ONQ)—measuring the intensity of enacted norms.

The data yielded by the LPC, LBS, and LDQ instruments were used to classify leaders into dichotomous groups: task- and people-oriented, traditional and contemporary, and industrial and postindustrial, respectively. As predicted, leader style was not found to
be significantly associated with follower descriptions of leader behavior, or with leader's descriptions of leadership paradigm. Also, leadership paradigm was found to be significantly associated with leader behavior. Data yielded by the CEQ and MCQ instruments permitted followers' levels of perceived planned change efficacy and leaders' levels of knowledge of contemporary change management to be measured and compared. Findings supported the proposed strong and positive linear relationship between planned change efficacy and knowledge of change management.

The data yielded by the OBQ, ONQ, and CEQ instruments permitted followers' levels of perceived organizational culture potency and planned change efficacy to be measured. Although a leader's style main effect on shared belief scores was found, tests confirmed that leader style did not exert a main effect on enacted norms or planned changed efficacy, and demonstrated no interaction effect with leader behavior on enacted norms, shared beliefs, or planned changed efficacy. Also, as predicted, leader behavior was found to demonstrate significant main effects on enacted norms, shared beliefs, and planned change efficacy. Tests further indicated that although leader style exerted a main effect on mean shared beliefs scores across leadership paradigm types, leader style did not demonstrate a significant interaction effect with leadership paradigm on enacted norms, shared beliefs, or planned change efficacy. As predicted, however, leadership paradigm was found to demonstrate significant main effects on enacted norms, shared beliefs, and planned change efficacy.
The data yielded by the OBQ, ONQ, and CEQ permitted levels of planned change efficacy and organizational culture potency to be considered jointly. The Pearson correlation coefficient indicated a strong and positive relationship between planned change efficacy and both measures of organizational culture potency—namely, shared beliefs and enacted norms. Finally, given the relationship between planned change efficacy and organizational culture potency, relationships between both leader behavior and leadership paradigm, and organizational culture potency were tested when controlling for the effects of planned change efficacy. Results of the analysis of covariance indicated that the differences between adjusted organizational culture potency for the traditional and contemporary leader behavior groups were significantly different. This finding did not support the proposed relationship posited by the researcher. Regardless of the presence of a planned change effort, leader behavior does influence organizational culture. However, the results further indicated that the differences between adjusted organizational culture potency for the industrial and postindustrial leadership paradigm groups were not significantly different. This finding supported the proposed relationship posited by the researcher. In the absence of a planned change effort, leader paradigm does not influence organizational culture.
Interpretations and Implications of the Findings

The interpretations and implications of each of the findings will follow the sequential order of the research questions grouped according to four major assertions posed by the researcher.

The first major assertion, which includes the first three research questions, addressed the relationships between leader style, leader behavior, and leadership paradigm. Leader style was considered an inappropriate measure and an obsolete model for leadership in a contemporary organization implementing a total quality high performance work system change initiative. It was also posited that a leader’s style would not be related to a leader’s behavior role or a leader’s leadership paradigm. The second major assertion proposed in Research Question 4 addressed the relationship between the leader’s knowledge of contemporary change management and the follower’s perceptions regarding the efficacy of a planned change initiative. It was proposed that in an organization implementing a total quality high performance change initiative, followers’ perceptions regarding the efficacy or effectiveness of the change effort would be directly related to the level of knowledge their leaders possessed about contemporary theories and principles of change.

The third major assertion proposed in Research Questions 5 and 6 addressed the relationships between organizational culture potency and planned change efficacy across types of leader styles, leader behaviors, and leadership paradigms. It was proposed that leader style would
exhibit neither main effects nor interaction effects with types of leader behavior or leadership paradigm on organizational culture potency and planned change efficacy. The fourth major assertion proposed in Research Question 7 addressed the moderating effects of planned change efficacy on organizational culture potency across types of leader behavior and leadership paradigm. It was proposed that when the preexisting effects of planned change efficacy were controlled for, no differences between organizational culture potency would be observed between leader behavior or leadership paradigm types.

Leader Style, Leader Behavior, and Leadership Paradigm

Interpretations

This research study investigated the relationships between leader style, leader behavior, and leadership paradigm. Of interest to the researcher were the relationships between the personality styles of leaders and both (a) the followers' descriptions of leader behaviors, and (b) the leadership paradigm of the leaders. Of further interest to the researcher was the relationship between the leader's leadership paradigm and the followers' descriptions of their leader's behavior.

Findings indicated that leader style was unrelated to followers' descriptions of leader behavior since there were no significant differences between the proportions of task-oriented and people-oriented leaders who were described as either traditional or contemporary. Also, leader style was unrelated to the leader's leadership paradigm since there were
no significant differences between the proportions of task-oriented and people-oriented leaders who possessed either an industrial or postindustrial leadership paradigm. However, findings indicated that leadership paradigm was related to followers' descriptions of leader behavior. Significant differences were found between the proportions of leaders with industrial and postindustrial leadership paradigms whose dominant behavior role was described by their followers as either traditional or contemporary.

Based on these findings it did not appear that leader style influenced followers' descriptions of leader behavior. Assuming the followers' descriptions of their leader's behavior were accurate, leaders performed specific functions that were identified as either traditional or contemporary role behaviors independent of their personal leader style. This observation strengthens the proposition that a leader's behavior is influenced by the unique role requirements and expectations imposed upon the leader by the organization. This interpretation suggests that leader style and leader behavior are different and independent variables and that leader behavior is not simply a manifestation of personal leader style. Results of this study support earlier findings which verified the link between task and relation-oriented leader styles and personal temperament (Atwater & White, 1985; Downton, 1973; Fleishman & Peters, 1962; Litzinger, 1965).

Similarly, leader style was found to be unrelated to the leadership paradigm of the leader. Interestingly, leader style—a cognitive construct for basic motivations—did not influence leadership paradigm—a
cognitive construct for basic assumptions. Both leader motive hierarchy and value-attitude are considered to be personality characteristics similar to, but not as invariant as, personality traits. Indicative of the underlying need structure and motive hierarchy of a leader, style is seen as an attitude related more to personal needs and judgments than to behavior. Fiedler (1978) confirmed that style exerted a weak main effect on a leader's behavior in comparison to the interaction effects of style and the situational favorableness to the leader. Also, different types of leader behaviors have been shown to impact the leader's task orientation and people orientation style (Anderson & Fiedler, 1964; Andrews & Ferris, 1967).

However, a paradigm is an influential constellation of coherent shared beliefs and concepts based upon underlying fundamental assumptions and generalizations which become established as an accepted model or pattern (Kuhn, 1962). Two such paradigms defined according to the traditional and contemporary conceptualizations of leadership are the industrial and postindustrial paradigms articulated by Rost (1991). The dominant leadership paradigm consists of a comprehensive set of values, beliefs, principles, and assumptions which serves to create the leader's model or world-view of leadership, influence the leader's behavior, and determines what leadership scholars and practitioners think about the nature of leadership (Rost, 1991).

The third hypothesized relationship addressed in the initial assertion posited that a leader's leadership paradigm will be related to followers' descriptions of leader behavior. This proposed relationship
implied that a dominant leadership paradigm will effectively influence leader behavior to the extent that followers are able to identify such leader behaviors which in essence act as descriptors of the particular paradigm. Although somewhat intuitive in nature, the ritual focus on leader style and virtual absence of leadership paradigm research has precluded serious consideration of this relationship. Leader behavior and leadership paradigm are related because they contain two complementary elements: cognitions and values. Cognitions relate to the basic set of ideas and rules of a paradigm, whereas values relate to the subsequent normative and behavioral manifestations of the paradigm.

The data from this study lend empirical evidence to the claim that leader style which focuses on the personality of the leader is irrelevant in a contemporary organization implementing a total quality high performance change initiative. Style theory reflects the industrial paradigm of leadership which equates leadership with the leader while ignoring the role of followers, the importance of shared purposes, and the intentions of real change (Rost, 1991). Although many researchers and practitioners continue to operate under the influence of the industrial paradigm, organizations involved in planned change must out of necessity attempt to reconceptualize their ideas and models of leadership by revising traditional paradigms and instituting contemporary principles and practices to facilitate transformation. This call to organizations is supported by the findings indicating that leader style does not influence the paradigm of a given leader nor does it determine the leader's behavior. These findings are consistent with the literature
cited regarding the effects of assumptions, beliefs, values, and the power of paradigms.

To summarize, the findings associated with the initial assertion regarding leader style, leader behavior, and leadership paradigm are consistent with the postindustrial paradigm of leadership and the contemporary view that leadership is not a person but a process. This study confirms the differences between leader style, leader behavior, and leadership paradigm, and supports the notion that in a contemporary organization the concept of leader style has limited value. The present research provides empirical evidence indicating that the fixation on leader style should be abandoned, and the industrial leadership construct reconceptualized in terms of the emerging postindustrial paradigm.

Implications

These findings pose a number of implications for current research and professional practice. First, the focus and fixation with leader style must be reduced. This preoccupation has unfortunately impeded the development of leadership theory and ingrained the traditional leadership paradigm. By concentrating on the leader and propagating the leader-centric view of leadership, researchers have for the most part ignored the follower and the leader-follower dynamics related to organizational change and transformation. Also, influenced by the popular leader style approach, managers and supervisors "personalize
leadership" failing to understand or develop the “collective” dimension of organizational leadership.

Secondly, leader behavior should reflect the enacted norms and prescribed principles related to the expected role of the leader. In an organization implementing a high performance work system initiative consisting of team design and total quality, it is necessary for leader behavior to be congruent with the contemporary high involvement concepts and to reinforce such concepts by application of the principles. In this way, the leader’s behavioral role is determined by the participative work design and constitutes only one half of the leadership formula of leader-follower collaboration. Perfecting their leader role allows for the role enhancement of followers. This dynamic implies that both leader and follower behavior is a function of environmental expectations and organizational assumptions.

Thirdly, the postindustrial paradigm of leadership should be understood and cultivated in order to overcome the effects and cultural residue of the industrial leadership paradigm. It is naive to rely solely on leader style or broad conceptualizations of autocratic and democratic leader behavior to transform traditional leader thinking and behavior. Contemporary leader roles require new knowledge and skills. Overcoming industrial age thinking, bureaucratic beliefs, authoritarian attitudes, and leader-centric perspectives demands changing the way organizations and leaders think and learn about leadership. The challenge of postindustrial leadership is clearly the building of collaborative leader-follower relationships. This, however, is a result of
recognizing the dependence between leaders and followers, and moving from understanding leadership as an individual to viewing it as a relationship.

This strongly suggests that conventional leadership training which focuses on leader style not only sustains the industrial paradigm but probably diminishes follower recognition, involvement, and development. Training and development itself may need to change. Implications for the area of leadership training, development, and education include: (a) adopting the postindustrial paradigm of leadership to achieve a praxis of leadership theory and practice, (b) recognizing that conventional leadership seminars and workshops focusing on leader style and personality characteristics are misguided, (c) involving leaders in ongoing professional development and follow-up coaching and collaborative mentoring, (d) creating professional opportunities for leaders to develop skills in assessing leadership dynamics and diagnosing leader-follower collaboration, and (e) understanding that organizational roles should be based upon the principles of postindustrial paradigm and the expectations of the organization.

Planned Change Efficacy and Leader Knowledge of Contemporary Change

Interpretations

The second major assertion of this study dealt with the relationship between the leader’s knowledge of contemporary principles of change and their followers’ perceptions regarding the efficacy or
effectiveness of a planned change initiative. Researchers and theorists assert that the management and leadership of change is critical to organizational success and survival. However, the literature on organizational change indicates that many change efforts are mismanaged and often fail to produce intended results.

The concept of change efficacy depends on followers understanding the change model sufficiently to analyze and judge the degree to which the initiative is proceeding in accordance with its espoused principles. It presumes that followers are informed, involved, committed, and confident in the change initiative. Planned change efficacy reflects the most salient dimensions of positive and effective change efforts. Efficacy also reflects a change model that professes principles and values accepted and agreed to by both leaders and followers. Implementation of a change model is insufficient; understanding the theory and principles behind the model as well as generating a sense of efficacy regarding the change model is essential.

The assertion that knowledge of contemporary change is related to perceptions of change efficacy is grounded in theoretical and empirical foundations and supports scholarly and applied research. The results of this study clearly point to a strong and positive correlation between followers' perceptions of planned change efficacy and leaders' knowledge of contemporary change management. Findings emphasize the importance of educating leaders and change agents in the principles and practices of contemporary change, and developing a change model based on contemporary theory and principles. These results are important for
leaders and change agents who are contemplating or implementing a planned change effort.

**Implications**

These findings and their interpretations have implications for theory and practice. Educating managers in contemporary change principles may prove to be an efficient way of reducing false-starts and failures. Learning the contemporary theories and principles of change may help managers revise their long-held beliefs and encourage them to practice the principles of collaborative change. Since change and leadership are inextricably interwoven, leaders should be re-educated in the principles of contemporary change and the psychology of organizational change. The principles may not only shatter myths and misunderstandings, but also enhance the repertoire of change agent skills well beyond the common practice of superficial employee “involvement.” The problem with change may not be the change itself, but how the change is introduced and instituted.

Researchers should consider reframing change within the postindustrial paradigm of leadership. The postindustrial definition of leadership is “an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes” (Rost, 1991, p.102). The elements of this definition challenge assumptions regarding the traditional bureaucratic view of change and call into question long-held conventional wisdom regarding follower resistance, restructuring panaceas, pseudo participation, and managing change from the top.
Finally, although a great deal of contemporary change knowledge has been accumulated, the level of understanding possessed by change agents remains insufficient. This is confirmed by reports of planned change failures, mismanaged change interventions, and employee frustration and lack of confidence in management change programs. Conventional training in change management with its focus on leader style, managing resistance, applying techniques, and control models of change promising revolutionary transformation must be replaced with theory. Leader development should include designing change models based on contemporary theory and principles as part of leader-follower collaboration in the change process. Change management training should also address related concepts and disciplines such as human behavior and organizational culture. Profound knowledge in these areas can be useful when applied to general adaptation and integration efforts, specific TQM and HPWS interventions, and world-class manufacturing work design initiatives such as just-in-time (JIT), statistical process control (SPC), and self-directed work teams (SDWT).

**Leader Characteristics, Organizational Culture and Planned Change Interpretations**

The third major assertion of this dissertation dealt with the relationship between organizational culture potency and planned change efficacy ratings across types of leader styles, leader behaviors, and leadership paradigms. Having initially confirmed the importance of
contemporary leader behavior and postindustrial leadership paradigm, the effects of these leader characteristics on organizational culture potency and planned change efficacy were investigated.

Research Questions 5 and 6 proposed that leader behavior roles and leadership paradigm types would have differential effects on mean scores for followers' perceptions of organizational culture potency and planned change efficacy, while leader style would exhibit neither main effects nor interaction effects between leader behavior or leadership paradigm on the dependent variables. Findings confirmed the proposed presence of leader behavior and leadership paradigm main effects on organizational culture potency and planned change efficacy independent of leader style.

Results indicated that organizational culture potency and planned change efficacy ratings were higher for followers with contemporary behavior leaders and postindustrial leadership paradigm leaders than for followers with traditional behavior leaders and industrial leadership paradigm leaders. Except for the isolated influence of leader style on the shared beliefs dimension of organizational culture across leadership paradigm types, results suggested that leader style had no influence on the followers' perceptions. This finding strengthened the assessment that leader style has limited influence in an organization implementing a high performance work system change effort. Organizational culture potency was determined by measuring followers' perceived intensity ratings for organizational shared beliefs and organizational enacted norms.
Many researchers agree that shared beliefs and enacted norms are core elements that are critical to defining and changing organizational culture. In an organization based on principles of total quality, involvement, and empowerment, related values and beliefs can become established and develop expectations which, in turn, act as normative guides for leader and follower behavior. However, a specific change initiative cannot bring about culture change alone. The change effort must be based on contemporary change theory and be judged effective by organizational members before shared values and expected norms are internalized.

The Six Phase Change Process used in the research organization was based on a contemporary model of change and included a set of principles related to high performance work systems. The Six Phase Process and related set of high performance values and norms contain elements similar to mechanisms and strategies for organizational culture change posited by Bennis and Nanus (1985), Burke and Litwin (1992), Kotter (1995), O'Reilly and Chatman (1996), and Schein (1992). All of these researchers agree that planned change can impact culture and that a strong culture exists when there are a set of beliefs and norms that are widely shared and intensely held by members throughout the organization.

Based on these observations, the findings indicate that the construct of leader style is not related to followers' perceptions of organizational culture or planned change. Style reflecting the internal predispositions of the leader is not necessarily related to the leader's
behavioral role and leadership paradigm. Leader behavior and leadership paradigm may influence followers' perceptions about organizational culture and planned change, because unlike style, they deal directly with leader-follower dynamics determined by the external and internal environment.

One explanation of these findings is that in an organization developing high performance work system processes based upon principles, shared beliefs and norms become instilled in the organization and expected by its members. To the extent that the organization involves its member in the change process and uses a formal change model, similar expectations form regarding the effective implementation of the change. Followers are then able to assess organizational culture potency by rating intensity of shared beliefs and enacted norms, and evaluate the efficacy of the change effort by rating how effectively the change model is being implemented within the context of their expectations.

Since followers with contemporary role and postindustrial paradigm leaders rated shared beliefs, enacted norms, and planned change efficacy higher than followers with traditional role and industrial paradigm leaders, it can be concluded that: (a) contemporary leaders with a postindustrial paradigm were more successful in meeting organizational requirements and expectations than traditional leaders with industrial paradigms, (b) contemporary leaders with a postindustrial paradigm were less likely to violate their followers' expectations by contradicting the shared beliefs or enacted norms than
were traditional leaders with industrial paradigms, and (c) contemporary
leaders with a postindustrial paradigm were perceived as more effective
at implementing the steps of the change model than traditional leaders
with industrial paradigms.

Implications

These interpretations suggest a number of implications for
researchers and organizations interested in enhancing the effectiveness
of organizational change. Although speculative, due to the exploratory
nature of this study, the findings make the following propositions
plausible.

Leader behavior should not be conceptually confined to traditional
leader styles or broad generic characteristics. The critical behaviors of a
leader should be role specific and dependent on organizational
requirements and expectations. Specifically, leader behaviors should
model the principles of change efforts, relate to the knowledge and skills
associated with organizational improvement strategies, and reflect the
postindustrial paradigm of leadership.

Merely implementing a change model can be insufficient and
counter-productive. The change model itself cannot determine its
success. Most change programs fail because they are guided by a theory
of change that is fundamentally flawed. Two examples of faulty
management practices stemming from the control theory of change are
(1) imposing rather than influencing, and (2) using power rather than
participation. By focusing most of their energy on changing people's

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attitudes and making people conform, managers and change agents ignore the essential aspects of understanding contemporary theories of change, such as involving people in the change in a meaningful way, defining leader and follower roles, creating a climate for change, and learning how to elicit change from people without imposing it on them.

Change is a process that should be aligned in the organization and anchored in the organizational culture. Aligning change requires that organizations recognize the postindustrial paradigm of leadership and replace the traditional roles of leaders and followers with collaborative roles in which they intend real change that reflects their mutual purposes.

Finally, to be effective, planned change should be understood in terms of culture change. Focusing only on the technical aspects and surface manifestations of change results in ignoring the cultural aspects of shared beliefs, expected norms, and underlying assumptions. The responsibility of collaborative leadership is recognizing that new roles, behaviors, and practices should be rooted in the shared beliefs and social norms of the organization. This is accomplished by designing a contemporary change model that incorporates principles related to the underlying beliefs and expected norms that will eventually serve to institutionalize the change and become inculcated in the organizational culture. Culture changes slowly because it cannot be changed directly. Culture change results after people internalize new assumptions, beliefs, and norms; alter their behaviors; and realize the connection between
their actions and performance improvement. It is this process and change dynamic that leads to lasting transformation.

**Leader Characteristics, Organizational Culture and Moderating Effects of Planned Change**

**Interpretations**

The fourth and final assertion of this study dealt with the moderating effects of planned change efficacy on organizational culture potency across types of leader behavior and leadership paradigm. It was proposed that planned change efficacy influences followers' perceptions of organizational culture potency. Based on this proposition, no differences in follower ratings for shared beliefs and enacted norms across types of leader behavior and leadership paradigm were expected when the influence of planned change efficacy was removed.

It was proposed that culture change begins with the recognition of performance problems and the implementation of a change process to address the problems. It was further speculated that organizational members should see the change effort as necessary and appropriate, share the values and norms associated with the change, and perceive the change effort as effective. In this way the psychological conditions for change are created, and the critical requirements for change are satisfied. The change intervention process provides the leader with opportunities to apply and practice the primary embedding mechanisms associated with transforming organizational culture described by Schein (1992). Based on this proposition, organizational change depends more
on collaborative leadership than it does on attempts to directly transform organizational culture. A change in organizational culture would more likely result from, rather than lead to, organizational change.

In the present study the researcher posited that considering the fact that the followers were all exposed to the effects of the planned change, no difference would be observed in followers' perceived levels of organizational culture potency across the factors of leader behavior and leadership paradigm when the influence of planned change efficacy was removed. It was speculated that the preexisting differences observed in perceived shared beliefs and enacted norms across types of leader behaviors and leadership paradigms were attributed to the effects of planned change efficacy. In other words, controlling for the effects of planned change, the researcher expected no differences would be found in shared beliefs and enacted norms for groups with traditional and contemporary behavior leaders, or industrial and postindustrial leadership paradigm leaders.

Results indicated that when adjusted for the effects of planned change efficacy, a significant difference was found between organizational culture potency ratings for traditional and contemporary leader behavior groups. This finding did not support the hypothesized relationship. Apparently, leader behavior influences followers' perceptions of organizational potency analogously, whether or not a planned change initiative is being implemented. This suggests that organizational culture potency perceptions of followers with traditional or contemporary leaders are influenced neither by the presence nor the
absence of a change initiative. When contemplating this possibility in light of the influential nature of leader behavioral roles, this finding is unremarkable. Leader role is determined by the specific actions and required behaviors expected by the organization of its leaders. Since a leader’s behavioral role reflects a dominant set of beliefs and norms, leader behavior will naturally and constantly impact culture. Traditional leader behaviors may negatively influence followers’ perceptions of culture by violating and contradicting shared values and expected norms, while contemporary leader behaviors may positively influence followers’ perceptions by modeling and reinforcing shared values and expected norms. This interpretation would explain why a planned change intervention is not necessary for leader behavior to influence organizational culture.

Results further indicated that when adjusted for the effects of planned change efficacy, no differences were found between organizational culture potency ratings for industrial and postindustrial leadership paradigm groups. This finding supported the proposed relationship. In light of this finding, it appears that leadership paradigm exerts a significant influence on followers’ perceptions of organizational culture under conditions of change. This suggests that organizational culture potency perceptions of followers with industrial or postindustrial leadership paradigm leaders are dependent upon the effects of planned change efficacy. Based on this interpretation, as hypothesized, planned change efficacy demonstrated a moderating effect between leadership paradigm and organizational culture. One can speculate that leadership
paradigm, a cognitive mechanism, is unlikely to influence culture unless its core assumptions and underlying beliefs regarding leader-follower collaboration are manifested through a legitimate organizational change dynamic. The efficacy of a planned change effort, therefore, may rest in part on the leadership paradigm of the leader. An implication of this interpretation is that the dominant leadership paradigm of leaders can play a critical role in organizations during the implementation of planned change interventions. This is especially significant for organizations because it strongly suggests involving change agents in educational processes aimed at developing postindustrial leadership paradigm assumptions, knowledge, and competencies.

**Implications**

Leaders, change agents, and researchers should not ignore the possibility that planned change interventions operating at the espoused beliefs and behavioral levels can result in culture change. Although change occurs within an organizational culture context, it appears that, contrary to popular opinion, culture may not be the "change trigger" researchers assumed it was 20 years ago. These findings and interpretations add a degree of support to the notion that we cannot change organizations by focusing directly on culture.

Leadership paradigm may influence organizational culture through planned change interventions, thus augmenting the effects of leader behavior. A postindustrial leadership paradigm may account for change agents focusing on the following: (a) embedding mechanisms,
(b) change mechanisms, and (c) validating mechanisms. This implies that during change, it may be the postindustrial leader who performs activities that are interpreted as culture embedding mechanisms by followers, such as deliberate role modeling, coaching, and reacting to critical incidents. Additionally, it may be that postindustrial leaders provide followers with the disconfirming data, new learning, and psychological safety necessary to facilitate successful change (Lewin, 1947; Schein, 1992). Finally, postindustrial leaders may confirm experiences for followers by validating the importance of new beliefs and behaviors and successfully adapting to change.

These implications reveal the reciprocal linkage between postindustrial leadership, contemporary change, and organizational culture. This linkage could become the basis for a preliminary model of transformational change—a model that defines leadership as collaboration, views change as a collaborative process, and perceives culture as a collaborative result. When considered a result, it becomes reasonable to conclude that organizational culture may not be transformed by direct means. Based on this proposition, the critical facet of collaborative leadership becomes focusing on the inputs and processes for achieving results through the implementation of a contemporary model of change grounded in theory.

Limitations

This study contains limitations and weaknesses which should be considered when interpreting its results. The results reported here are
based on exploratory cross-sectional survey data. Being a correlational study, no conclusions can be drawn concerning the direction of causality in its findings.

Although some instrumentation designed for this dissertation received support from experts and scholars, rigorous validation was lacking. Therefore, the findings need to be viewed with some caution because the measurement scales for the variables of shared norms, planned change efficacy, and leadership paradigm require refinement. In addition, as with all surveys, the responses for the most part were self-reported perceptions and opinions of the individual participants rather than verifiable objective data.

Limitations of the study can be categorized into either internal or external sources of invalidity. Internal invalidity refers to the possibility that conclusions based on results do not accurately reflect what has actually occurred in the study (Campbell & Stanley, 1963; Cook & Campbell, 1979). One source of invalidity in this study may have been the process of administering the surveys. Since the surveys were administered by the researcher who was introduced as an employee of the research organization, researcher bias or prejudice may have influenced subject responses. In addition, because all of the plants were participating in the same corporate change initiative, it was highly likely that subjects participated in company surveys or opinion polls in the recent past. Therefore, it is possible that the subjects’ heightened sensitivity to similar concepts related to this study influenced their perceptions and responses.
Another threat to validity, external invalidity, relates to the generalizability of findings (Campbell & Stanley, 1963; Cook & Campbell, 1979). Possible threats to the external validity of this study are the homogeneity of subjects and the organizational context. Since the data were collected from subjects in only one organization, the results obtained here may not be generalized to other subjects and organizational settings. Additionally, the manufacturing context of the research organization further limits generalizability of the results to other industries such as the service and nonprofit sectors.

One final potential limitation relates to the influence of the actual corporate change dynamic itself. The sample plants all began the corporate change process approximately at the same time. The plants were also expected to be implementing the same phase of the change model. Based on overall similarity in implementation progress and relative success with the change effort, it can be argued that the sample plants were all experiencing the "incipient stage" of organizational change. The results, therefore, may be only a reflection of a temporary manifestation. Consequently, this raises the question of whether the results are subject to a phase-specific experiential phenomenon further limiting generalizability of findings.

In spite of these limitations, this research study supports some current wisdom about the contemporary role of leaders, the postindustrial paradigm of leadership, and the effects of leader behavior and planned change on organizational culture. In conclusion, although this study has limitations, it nonetheless seriously calls into question the
value of leader style in a high performance work system organization, demonstrates the influence of contemporary leader behavior and leadership paradigm on follower perceptions of change efficacy and culture potency, and articulates a viable relationship between organizational culture and contemporary change principles.

Recommendations for Future Research

A number of fruitful research directions are suggested by these findings. First, replicating these results with a larger sample representing different organizations would address the aforementioned limitation of the present study and allow comparisons between organizations to be investigated.

The findings raised other questions and concerns regarding leadership, change, and culture that future research might explore and investigate:

1. The industrial paradigm of leadership may actually undermine the very goals contemporary leaders are supposed to achieve. The new economic era clearly calls for a new conceptualization of leadership. Studies of leadership guided by the postindustrial leadership paradigm would benefit organizations by focusing on leader-follower relationships rather than on the leader alone. To understand contemporary leadership, the leader-follower influence relationship could be explored both ethnographically within the context of organizational change and culture, and experimentally considering change and culture as dependent variables. It would be of further interest to study the cognitive
mechanisms and structures of followers' assumptions and beliefs regarding their own leadership paradigm for comparative purposes with leaders and other followers.

2. It is important to refine the construct of planned change efficacy. If a planned change initiative can lead to organizational culture change, are specific stages of planned change such as the "incipient stage" more critical than subsequent stages? Also, if planned change efficacy does in fact facilitate organizational development and culture change, what specific leader and follower factors effect change efficacy? One possible factor proposed in this study is postindustrial leadership paradigm. Other individual and group factors that possibly relate to change efficacy, such as cohesion, commitment, satisfaction, and experience, should also be explored. Further, the dynamic of contemporary change requires additional investigation and research to discover what specific elements need to be incorporated into a formal change model. A stronger theoretical foundation would increase the efficacy of planned change implementation.

3. Although considered a less fundamental component of organizational culture than underlying assumptions, the perceptions measured in this study encompassed shared normative beliefs and behavioral expectations. Systematic research is required in the design of organizational culture instruments that include leadership and change as dimensions. Furthermore, researchers should search for ways to assess organizational culture to understand how to more effectively manage planned change. Future research therefore should consider
designing organizational-specific measures of culture when investigating
the effects of leadership and planned change. This would entail both
qualitative and quantitative diagnosis to identify the espoused beliefs
and injunctive norms within the culture. Further, organizational culture
potency should be measured before, during (as in this study), and after
an organizational change initiative is implemented. Longitudinal studies
of this nature could provide data over time which may help in clarifying
the causal structure of relationships.

Conclusion

The postindustrial age demands that we relearn things already
understood. The traditional industrial world has passed, even though its
myths live on in tacit superstitious knowledge. The researcher believes
that the crucial leadership challenge of this coming decade will be to
create and sustain a more collaborative relationship between leaders and
followers. As Schein (1992) cautioned, organizational survival and
success will be dependent on the ability of leader-follower relations to
resolve the problems of internal integration and external adaptation. In
order for this to be achieved, the differences in fundamental beliefs about
people, change, and culture need to be reconciled within the structures
and systems of our organizations. This will require more than our
present assumptions and conceptualizations of leadership can offer.

The problem is not leadership per se, but the leader-centered
operationalization of leadership. Whereas the traditional paradigm
would propose that leaders produce organizational “results,” the
contemporary paradigm suggests that leadership produce organizational "products." The products of postindustrial leadership are collaboration, adaptation, and the creation of shared purposes, all necessary inputs and processes to achieve the outcome of cultural transformation. Another concern is to understand that planned change efforts may not transform organizational culture unless they deal with assumptions, beliefs, and behaviors, the "raw materials" of culture. How can we hope to change organizational culture while the organization itself remains unchanged? Finally, culture change may not necessarily mean "renewing" beliefs and values, but "reaffirming" existing beliefs and values to reestablish that they are still meaningful and essential. In this way the organization remembers itself and its members realize that their beliefs still apply and their values still pertain, thus providing constant meaning and critical energy in the transformation process.

The underlying thesis of this study was that traditional assumptions about leadership, planned change, and organizational culture are perpetuating traditional principles and practices in contemporary organizations. The implications of the findings presented in this dissertation are speculative due to the exploratory nature of this research. However, these findings have extended our knowledge concerning organizational transformation by contributing to the reconceptualization of the leadership construct and the explication of the leadership-change-culture linkage. The researcher believes that organizational transformation must start by developing a leadership-culture, the reality of which is only possible by first turning our gaze
away from the leader-centric mythology and clearly seeing the leader-follower necessity of the postindustrial paradigm of leadership.

Thus the task is not so much to see what no one yet has seen, but to think what no one yet has thought about that which everyone sees.

Schopenhauer (Wheatley, 1992, n.p.)
Appendix A

Development of Leader Behavior Survey (LBS) Instrument
Analysis of LBS Instrument

The Leader Behavior Survey (LBS) was developed to measure the frequency in which a team leader performs certain leader behaviors as reported by team members. The conceptual basis for this instrument was derived from the works of Blake and Mouton (1964), Covey (1991), Crosby (1988), Deming (1986), Kelly (1992), Klein and Posey (1986), Manz and Sims (1987), and Malcolm Baldrige Quality Award Criteria (National Institute of Standards and Technology, 1990). Based on this literature, 26 leader behavior items were generated. Thirteen items referred to directive or traditional leader behaviors, and 13 items referred to participative or contemporary leader behaviors. The generated items were formed into statements that included a “key word” and a brief descriptive phrase describing an observable leader behavior.

In the pilot study (Chodkowski, 1994), responses to the questionnaire were statistically analyzed to determine the quality of the items. A confirmatory factor analysis was performed to determine relationships among the items and underlying factors. It was expected that factor analysis would uncover two factors within the items. The results of the factor analysis suggest that the 26 items of the LBS were measuring two constructs. The factor pattern matrix indicates which items are loaded on the first factor and which items are loaded on the second factor. The items loading on Factor 1 represent the team concept leader behaviors that are contemporary in approach and have been connected to high performance team designs. The items loading on...
Factor 2 represent the hierarchical leader behaviors associated with the traditional approach to leadership that have been connected with lower levels of performance in team design organizations.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Collaborator</td>
<td>0.935*</td>
<td>-0.283</td>
</tr>
<tr>
<td>2. Facilitator</td>
<td>0.908*</td>
<td>-0.331</td>
</tr>
<tr>
<td>3. Team Builder</td>
<td>0.904*</td>
<td>-0.348</td>
</tr>
<tr>
<td>4. Mentor</td>
<td>0.877*</td>
<td>-0.384</td>
</tr>
<tr>
<td>5. Quality 1st</td>
<td>0.866*</td>
<td>-0.444</td>
</tr>
<tr>
<td>6. Leader</td>
<td>0.855*</td>
<td>-0.413</td>
</tr>
<tr>
<td>7. Delegater</td>
<td>0.843*</td>
<td>-0.494</td>
</tr>
<tr>
<td>8. Trainer</td>
<td>0.836*</td>
<td>-0.462</td>
</tr>
<tr>
<td>9. Developer</td>
<td>0.810*</td>
<td>-0.540</td>
</tr>
<tr>
<td>10. Process Improver</td>
<td>0.789*</td>
<td>-0.550</td>
</tr>
<tr>
<td>11. Proacter</td>
<td>0.700*</td>
<td>-0.507</td>
</tr>
<tr>
<td>12. Resource</td>
<td>0.650*</td>
<td>-0.620</td>
</tr>
<tr>
<td>13. Advisor</td>
<td>0.508*</td>
<td>-0.806</td>
</tr>
<tr>
<td>14. Competitor</td>
<td>-0.736</td>
<td>0.612*</td>
</tr>
<tr>
<td>15. Policeman</td>
<td>-0.724</td>
<td>0.663*</td>
</tr>
<tr>
<td>16. Reactor</td>
<td>-0.696</td>
<td>0.632*</td>
</tr>
<tr>
<td>17. Decision Maker</td>
<td>-0.203</td>
<td>0.898*</td>
</tr>
<tr>
<td>18. Manager</td>
<td>-0.409</td>
<td>0.887*</td>
</tr>
<tr>
<td>19. Expert</td>
<td>-0.422</td>
<td>0.876*</td>
</tr>
<tr>
<td>20. Scorekeeper</td>
<td>-0.512</td>
<td>0.820*</td>
</tr>
<tr>
<td>21. Judge</td>
<td>-0.547</td>
<td>0.789*</td>
</tr>
<tr>
<td>22. Foreman</td>
<td>-0.305</td>
<td>0.910*</td>
</tr>
<tr>
<td>23. Problem Solver</td>
<td>-0.594</td>
<td>0.779*</td>
</tr>
<tr>
<td>24. Director</td>
<td>-0.615</td>
<td>0.754*</td>
</tr>
<tr>
<td>25. Firefighter</td>
<td>-0.617</td>
<td>0.747*</td>
</tr>
<tr>
<td>26. Productivity 1st</td>
<td>-0.656</td>
<td>0.710*</td>
</tr>
</tbody>
</table>

*Loaded
To further analyze the specific contemporary leader behavior items, a second factor analysis was performed on the 13 generated items. Although all items in this scale were loaded on Factor 1, it is interesting to note that factor analysis uncovered three factors within the items. Investigating these factors provides us with greater insight into the relationships between the contemporary leader behaviors.

The results of the secondary factor analysis suggest that the 13 contemporary leader behavior items have three underlying factors. The factor pattern matrix indicates which items loaded on Factors 1, 2, and 3. The items loading on Factor 1 seem to represent the leadership concepts and principles of the Total Quality Management Approach. Factor 1 includes items that focus on Quality, Continuous Process Improvement, and Team Building, which are the foundation principles of T.Q.M. The two items loading on Factor 2, “Mentor” and “Trainer,” are not only related but also point to an important consideration that the mentor relationship must be based on training to ensure the personal growth and professional development of the individual being mentored. Lastly, the two items loading on Factor 3, “Facilitator” and “Leader,” not only underscore the fact that these are parallel behaviors which helps in redefining the concept of leader, but also supports the general opinion that leadership in a team design organization is considered only one of many roles, albeit a critical role.
### Secondary Factor Pattern Matrix of the Factor Analysis for the Contemporary Leader Behavior Survey Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Collaborator</td>
<td>.899*</td>
<td>-.081</td>
<td>-.125</td>
</tr>
<tr>
<td>2. Quality 1st</td>
<td>.865*</td>
<td>-.081</td>
<td>-.126</td>
</tr>
<tr>
<td>3. Team Builder</td>
<td>.582*</td>
<td>-.162</td>
<td>-.654</td>
</tr>
<tr>
<td>4. Resource</td>
<td>.800*</td>
<td>-.026</td>
<td>.433</td>
</tr>
<tr>
<td>5. Developer</td>
<td>.761*</td>
<td>.461</td>
<td>.409</td>
</tr>
<tr>
<td>6. Advisor</td>
<td>.461*</td>
<td>.400</td>
<td>-.100</td>
</tr>
<tr>
<td>7. Proacter</td>
<td>.592*</td>
<td>.076</td>
<td>-.100</td>
</tr>
<tr>
<td>8. Delegator</td>
<td>.566*</td>
<td>-.304</td>
<td>.402</td>
</tr>
<tr>
<td>9. Process Improver</td>
<td>.795*</td>
<td>.562</td>
<td>-.222</td>
</tr>
<tr>
<td>10. Trainer</td>
<td>.186</td>
<td>.887*</td>
<td>.354</td>
</tr>
<tr>
<td>11. Mentor</td>
<td>.314</td>
<td>.697*</td>
<td>-.293</td>
</tr>
<tr>
<td>12. Facilitator</td>
<td>.087</td>
<td>-.908</td>
<td>.336*</td>
</tr>
<tr>
<td>13. Leader</td>
<td>.446</td>
<td>-.105</td>
<td>.703*</td>
</tr>
</tbody>
</table>

*Loaded

(Adapted from Chodkowski, 1994)
Appendix B

Human Subjects Institutional Review Board Approval
To: Zoe Barley, Principal Investigator
   Matthew Chodkowski, Student Investigator

From: Richard Wright, Chair

Re: HSIRB Project Number 98-04-09

Date: 11 May 1998

This letter will serve as confirmation that your research project entitled "Relationships Between Leader Characteristics, Planned Change and Organizational Culture in a Team Design Manufacturing Environment: An Exploratory Study" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 11 May 1999
BIBLIOGRAPHY


Clark, K. E., & Clark, M. B. (1992). Focusing on leaders and leadership. In K. E. Clark, M. B. Clark, & D. P. Campbell (Eds.), Impact of leadership (pp. 1–10). Greensboro, NC: Center for Creative Leadership.


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