ABSTRACT

Title of Dissertation: DECOMPOSING CHARISMATIC LEADERSHIP: THE EFFECTS OF LEADER CONTENT AND PROCESS ON FOLLOWER PERFORMANCE, ATTITUDES, AND PERCEPTIONS

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Leadership entails both content and process elements, e.g., what the leader says and how the leader says it. For example, charismatic leaders are theorized to communicate and implement a vision (content) with an enthusiastic communication style (process). In a laboratory experiment with manipulated independent variables and a simulated task, this dissertation separately examined the content and process components of charismatic leadership on performance and attitudes.

The content aspect was separated into two parts, vision (versus no vision) and implementation of the vision through task strategies (versus no task strategies). Process was manipulated as enthusiasm level (low versus high). Thus, a 2 x 2 x 2 design was employed. Two trained actors, one male and one female, played the role of leader, a CEO/President of a local printing company. Upper-level business students served as participants and performed a binder assembly task. Students completed questionnaires before each session and at the end of the

experiment to assess how they are influenced by the leader.

Results indicated that content affected performance and many attitudes and perceptions. Process did not affect performance and affected only a few attitudes and perceptions. Exploratory analyses showed that self-set goals and self-efficacy served as mediators between the content variables and performance. Theoretical, methodological, and practical implications are discussed.

DECOMPOSING CHARISMATIC LEADERSHIP: THE EFFECTS OF LEADER CONTENT AND PROCESS ON FOLLOWER PERFORMANCE, ATTITUDES AND PERCEPTIONS

by

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Chapter 1

Introduction

Leadership has been a topic of interest since ancient times and remains a topic of interest to today's researchers and practitioners. It is more relevant than ever in today's rapidly changing environment. Organizations are relying more and more on leaders at all levels of the hierarchy to guide the organization through turbulent times while increasing product quality as well as profits.

There are many definitions of leadership (Yukl, 1989). One definition that captures the basic elements of leadership is the following (Locke et al., 1991): "Leadership is the process of inducing others to take action toward a common goal." This definition implies that leadership is a relationship between a leader and followers (Kouzes & Posner, 1987); it cannot exist in isolation from followers. The definition further implies that leadership is a process. Leadership is not simply a title or position, but consists of actions performed by the leader. Finally, the definition posits that leaders must induce, that is, persuade or arouse, rather than force followers to work toward common goals. They do this using a variety of procedures, such as communicating a

vision using legitimate authority, role modeling, goal setting, rewarding and punishing, organizational restructuring, and team building (Locke et al., 1991).

This dissertation will focus on one specific type of leadership, charismatic leadership. More specifically, this dissertation investigates how components of charisma influence follower performance, attitudes, and perceptions.

Charisma and Charismatic Leadership

Charisma and charismatic leadership are two distinguishable though overlapping concepts. **Charisma** is defined as magnetic charm or appeal (Webster's New Collegiate Dictionary). Charismatic individuals demonstrate more animated behaviors and facial expressions than non-charismatic individuals, which arouses emotions in others (Friedman, Prince, Riggio, & DiMatteo, 1980; Kouzes & Posner, 1987). By strict definition, charisma is a personality trait or style. Thus, a leader with charisma is a leader who acts charismatically regardless of the content of the actions or statements made.

In the current literature (e.g., Bradley, 1987; House, Spangler, & Woycke, 1991), the term **charismatic leadership** has taken on a broader meaning than simply a leader who possesses a charismatic personality.

Charismatic leadership is said to encompass not only (a) the leader's personality traits, of which charisma is the core trait, but also (b) specific actions taken by the leader, such as communicating and implementing a vision, as well as (c) the leader's effects on followers, such as changes in followers' performance and changes in followers' attitudes and perceptions toward the leader. This dissertation deals with all three aspects of charismatic leadership.

Charismatic leadership theories are discussed in detail in the next chapter.

Chapter 2

Literature Review: Charismatic Leadership

First, Weber's theory is presented. Then, two transformational leadership theories are reviewed. Finally, two charismatic leadership theories are discussed.

Weber's Theory

Weber (1947) was the first theorist to use the term charisma. He used the term "charismatic authority" to refer to a form of social authority. Charismatic authority, according to Weber, exists when an individual claims to have or is thought to be endowed with supernatural, superhuman, or exceptional powers. These powers were seen as divine in origin, based on God or gods (Tucker, 1968). Such powers were not possessed by ordinary men. Weber (1947, p. 358) also stated that charismatic leaders "reveal a transcendent mission [vision] or course of action which may be in itself appealing to the potential followers, but which is acted on because the followers believe their leader is extraordinarily gifted." Still, Weber has been criticized as being unclear as to exactly what behaviors distinguish

charismatic leaders from non-charismatic leaders (Dow, 1969).

Weber also proposed that charismatic leaders emerge during times of distress. Charismatic leaders possess a divine, magical personality trait that only comes forward during crisis situations (Weber, 1947). However, a study by Willner (1984) using political and religious leaders found that charismatic leaders may also emerge during non-crisis situations.

Transformational Leadership: Burns and Bass

Transformational leadership theories are considered by some to be distinct from charismatic leadership theories. For clarity, they will be reviewed separately although they are highly similar to charismatic theories and are even seen as the same by other theorists (e.g. House, Woycke, & Fodor, 1988).

Burns' Transformational and Transactional Leadership

Burns is well known in the leadership literature for advancing Weber's ideas. He made the distinction between transformational and transactional leadership. Burns (1978, p. 19) defines leaders as "inducing followers to act for certain goals that represent values and the motivations - the wants and needs, the aspirations and expectations - of both leaders and followers."

Transformational leaders recognize existing needs or demands in followers and seek ways to elevate the followers to satisfy these needs. They clarify followers' goals, causing them to set and accept higher transcendent goals (House, 1977). In contrast, transactional leadership is based on an exchange relationship between the leader and followers. For example, in exchange for pay, followers (employees) agree to meet their daily quota.

Bass' Transformational Theory

Bass (1985) has identified some specific behaviors that transformational and transactional leaders exhibit. Transactional leaders use contingent reward, which usually comes in the form of praise for work well done and recommendations for pay increases, bonuses, and promotions (Sims, 1977). They also rely on management-by-exception, only taking action when something goes wrong and use negative feedback and contingent aversive reinforcement (or punishment) when a follower fails or performs an undesirable behavior.

Transformational leaders, on the other hand, rely on charisma. One form of charismatic leadership is what Bass calls inspirational leadership, which usually involves giving speeches and motivating pep talks. According to Bass' typology, transformational leaders also engage in

individualized consideration. They treat each subordinate independently depending on each one's unique needs and capabilities. Finally, they engage in intellectual stimulation in the form of teaching and coaching subordinates and arousing them to think in new ways.

Based on the typology of transactional and transformational leadership, Bass developed the Multifactor Leadership Questionnaire. Items describing each of the above five leadership styles (contingent reward, management-by-exception, charisma, individualized consideration, and intellectual stimulation) were written based on a literature review (Bass, 1981) that highlighted the distinctive aspects of each leadership style. Then, he had 104 military officers complete the questionnaire, answering with respect to the degree to which each item described his or her superior. Factor analysis results supported the existence of the five factors, although the relationship between each factor and leader effectiveness was not examined. This factor analysis has been replicated in a subsequent study, providing evidence for the reliability of the MLQ's factor structure (Bass & Avolio, 1989). However, one drawback of Bass' scales is that they do not distinguish between leader behaviors and the effects of such behaviors (Yukl, 1989). For example, the action of giving speeches can result in followers

feeling inspired. Bass' scales include items measuring leader behaviors as well as the effects of those behaviors on the followers.

Empirical Studies on Transformational Leadership

Hater and Bass (1988) gathered data on employees in an express mail delivery organization. Managers were divided into two groups, top performers and ordinary performers. Subordinates completed the MLQ to measure their perceptions of their manager's transformational or transactional behaviors. Top performing managers were significantly higher than ordinary managers on the charismatic and individualized consideration factors. Results indicated that top performers and ordinary managers did not significantly differ on transactional factors. Transformational factors (charismatic leadership and individualized consideration) significantly predicted the performance of the manager's work group but transactional factors did not. Although the study used managers and not leaders, subordinates had little trouble identifying transactional and transformational leadership characteristics in their managers.

Avolio, Waldman, and Einstein (1988) examined the effects of transactional and transformational leaders on group performance on a management simulation game. At the beginning of the 3-month period over which the game took

place, each of 27 teams elected a leader. Toward the end of the game, group members rated their leader on the five MLQ scales. Regression analysis indicated that individualized consideration, when entered first into the equation, significantly accounted for 22% of the variance in group performance. When charismatic/inspirational leadership was entered after individualized consideration, it added 9% variance, for a total of 33% accounted for. Intellectual stimulation, contingent reward, and management-by-exception did not significantly add unique variance. When charisma was entered first into the regression equation, it significantly accounted for 14% of the variance in group performance. Although this study shows that transformational leadership is significantly related to group performance, the causal direction of this relationship is unclear. One possibility is that group members may have been more likely to rate their leader as transformational if group performance was high. Another possibility is that as a result of the group performing well during the first part of the game, the leaders may have exhibited more transformational behaviors.

Rosener (1990) surveyed men and women leaders about their own leadership styles and personal characteristics. Each female leader was matched with a male leader in a similar organization with similar responsibilities. The

main findings indicated that the women were more likely to report using power based on charisma, work record, and contacts as opposed to power based on organizational position, title, and the ability to reward and punish. Rosener suggests that women, therefore, may be more likely to use transformational leadership techniques. She defines transformational leadership broadly to include techniques such as making individuals feel important, sharing information and power, enhancing self-worth of others. Men were more likely to report relying on transactional techniques, using authority and the ability to reward and punish. However, Rosener did not obtain independent (e.g. subordinate) ratings of the leaders' styles; it may be possible that women simply describe their styles differently than men.

In sum, the above studies are a first step toward understanding the nature of transformational leadership. They have shown that transformational behaviors can be readily observed in leaders and can be reliably measured through observation and questionnaires. This research is consistent with charismatic leadership theory and research, examined next.

Charismatic Theories: House and Conger

House (1977) and Conger and Kanungo (1987) have each developed similar theories of charismatic leadership. Each theory is presented in turn, along with relevant research.

House's Theory of Charismatic Leadership

Based on selected literature from social psychology (as opposed to sociology or political science), House's (1977) theory of charismatic leadership posits several characteristics of charismatic leaders. These include high self-confidence, dominance, and a strong conviction in the moral righteousness of their beliefs. Charismatic leader behaviors, according to House (1977) include role modeling, image building, goal articulation (a transcendent goal or vision), exhibiting high expectations, showing confidence in subordinates, setting challenging goals for followers, and arousing follower motives. The results or outcomes of these behaviors include the following: (a) commitment to the leader; (b) identification with and emulation of leader's values, goals, and behavior; (c) follower self-confidence; (d) trust in the leader.

House views charismatic leaders in basically the same way as Weber and Burns view transformational leaders in that charismatic leaders arouse followers motives through

inspirational speeches and emotional appeals. House makes hypotheses about specific characteristics and behaviors of charismatic leaders as well as consequences of charismatic leaders.

House and colleagues have examined the effects of charisma in two separate studies. First, House, Woycke, and Fodor (1988) studied charisma in former U.S. Presidents. Charisma was measured using historians' ratings of presidents biographies and cabinet members' biographies. Presidents Thomas Jefferson, Andrew Jackson, Abraham Lincoln, Theodore Roosevelt, Franklin D. Roosevelt, and John F. Kennedy were identified as charismatic. Results indicated that all the charismatic presidents were either re-elected or assassinated. But, only a small percentage of non-charismatic presidents were either re-elected or assassinated. This suggests that charismatic leaders arouse strong emotional feelings in others. Charismatic presidents were significantly higher than neutral and non-charismatics on effectiveness ratings, including general prestige, strength of action, presidential activeness, flexibility, and accomplishment of their administrations. House and colleagues also found that charisma accounted for almost half of the statistical variance in leader effectiveness, as measured by historians' retrospective ratings.

In a follow-up study, House, Spangler, and Woycke (1991) developed a general model of charismatic leadership. They argued that effectiveness was a function of leader needs for power, achievement, affiliation, and power inhibition. Charisma and need for power were significantly related to rated presidential performance, while need for achievement and need for affiliation showed no significant first order correlations. Further, motives and charisma together predicted from 24% to 66% of the statistical variance in presidential performance.

Conger and Kanungo's Charismatic Leadership Theory

Conger and Kanungo (1987; see also Conger, Kanungo, & Associates, 1988, and Conger, 1989) have formulated their own theory of charismatic leadership in the form of research propositions. They identify behavioral components similar to those presented by House. Conger and Kanungo do not see charisma solely due to personality factors or situational factors but as a "charismatic relationship" between leader and followers. They argue that "a leader becomes charismatic when he/she succeeds in changing his/her followers' attitudes to accept the advocated vision" (Conger & Kanungo, 1987, p. 640). The leader may be "charismatic when the vision is highly discrepant from the status quo yet remains within a latitude of acceptance for their followers" (Conger &

Kanungo, 1987, p. 642). Such leaders communicate a vision, try to change the status quo, are likeable, are trustworthy, are experts, have unconventional or counternormative behavior, and have strong articulation of future vision and motivation to lead.

Conger and Kanungo (1987, p. 645) state that by isolating these behavioral components of charismatic leadership, "it may be possible to develop these attributes in managers." It would also be possible to select managers on the basis of charismatic attributes.

However, in addition to isolating the behaviors, the relationship between the behaviors needs to be examined. Conger and Kanungo only state that the behaviors are interrelated but do not specify how the components are related. For example, attempting to change the status quo or exhibiting unconventional behaviors may lead to the followers liking and trusting the leader. Clearly, the impact of leader behaviors on follower behaviors and follower perceptions of the leader needs to be examined.

Empirical Research on Charismatic Leadership

Yukl and Van Fleet (1982) conducted a field study of four samples of military leaders. Using correlational analyses in two of the studies and content analysis in two of the studies, they found that inspirational (or charismatic) leadership was significantly related to

leader effectiveness and high levels of follower motivation. Other leadership behaviors important for group performance were role clarification, criticism-discipline, and performance emphasis. These findings held under combat, noncombat, and simulated combat conditions. Results also indicated that consideration was important for maintaining positive leader-subordinate relations in noncombat situations but was unrelated to group performance.

House's (1977) theory of charismatic leadership was supported by Howell and Higgins (1990), who examined the differences between informal project champions (leaders) and non-champions across 28 organizations. To control for differences in organizational size, industry, and other variables relating to the specific innovation, they formed 25 pairs of champions and non-champions. Questionnaires and interviews were used to gather data on leader behaviors and performance. Results indicated that champions scored higher than non-champions on the characteristic of self-confidence as well as on measures of charismatic behavior, including strong ideological conviction about goals, consideration for others, expression of high expectations for others, and showing confidence in others.

Howell and Frost (1989). A study conducted by Howell and Frost (1989) is particularly relevant to this dissertation and is examined in detail. Howell and Frost (1989) conducted an elaborate leadership simulation. In a laboratory setting, they examined three styles of leadership: charismatic, structuring, and considerate. They trained two actresses, chosen based on their similar age and attractiveness, to display each style. **Charismatic leaders** displayed the following behaviors: (a) **Content** of the communication included articulating an overarching goal (vision), communicating high performance expectations, showing confidence in subordinates' ability to meet expectations, and empathizing with the needs of their subordinates; (b) **Paralinguistic cues** included exhibiting a captivating and engaging voice tone, alternating between pacing and sitting, and leaning forward when sitting; (c) **Nonverbal behaviors** included maintaining direct eye contact, having a relaxed posture, and showing animated facial expressions; and (d) **Interaction style** was projected as a powerful, confident, and dynamic presence.

Structuring leaders exhibited the following behaviors: (a) **Content** of their communication focused on factual information about the task, explaining the nature of the task, deciding in detail how it is to be done, and

emphasizing and maintaining definite performance standards (quantity of work); (b) **Paralinguistic cues** included simply reading instructions aloud, acting in a businesslike manner, and speaking in a moderate voice tone; (c) **Nonverbal behaviors** included sitting behind the desk, maintaining intermittent eye contact, and having neutral facial expressions (i.e. absence of smiling and absence of positive head nods); (d) **Interaction style** was neutral and businesslike.

Considerate leaders exhibited the following behaviors: (a) **Content** of leaders' communication included a concern for the personal welfare of participants, participative two-way communications, and emphasizing the comfort, well being, and satisfaction of participants; (b) **Paralinguistic cues** consisted of speaking with a warm voice tone; (c) **Nonverbal behaviors** included sitting on the edge of the desk, leaning toward participants, maintaining direct eye contact, and having a relaxed posture; (d) **Interaction style** was friendly and approachable.

Ratings of the actresses' behavior by independent judges, naive to the study's purpose, indicated that the actresses successfully portrayed each type of leadership style; postexperimental manipulation checks completed by participants corroborated their manipulations. There were

no significant differences between the two actresses in their portrayals of the leadership styles.

In addition, Howell and Frost manipulated group productivity norms. Half of the participants under each leadership style were exposed to a confederate co-worker who expressed enthusiasm and interest in the task; the confederate made positive and encouraging statements about doing the exercise. The remainder of the participants were exposed to a confederate co-worker who expressed disinterest and boredom; the confederate made negative remarks about the exercise and nonverbally displayed a lack of interest in the task. Thus, a 3 x 2 design was used, with 3 levels of leadership style and 2 levels of group productivity norms.

Performance on an in-basket task was the main dependent variable. Analyses revealed that participants exposed to the charismatic leader had higher quality of performance than the considerate leader but not the structuring leader. Also, participants under charismatic leaders had higher specific and general task satisfaction and lower role conflict and ambiguity than those under considerate leaders. There were no significant differences in role ambiguity between structuring and charismatic leaders, but individuals with charismatic leaders had higher specific and general task satisfaction

and lower role conflict than those with structuring leaders. Those in the charismatic leadership condition had higher adjustment to the leader than those with a structuring leader or a considerate leader. Adjustment to the leader was measured by items assessing the quality of the individual's relationship with the leader and co-workers, personal commitment to the leader, and degree to which the individual was motivated by the leader.

Although there were no main effects for the group norm variable, there were significant interactions between groups norms and leadership style. Unlike structuring and considerate leaders, charismatic leaders (Howell & Frost, 1989) appeared to overcome group pressures for low task productivity and augment group pressures for high task productivity, thereby facilitating individuals' adjustment to the leader, adjustment to the task (measured by job satisfaction, role ambiguity, role conflict, and job-related tension items), as well as performance in a new work setting.

Overall, Howell and Frost (1989) asserted that charismatic leadership is multidimensional in that they concluded it consists of at least two components, content and process, e.g., what the leader said and how the leader said it. The verbal **content** of the leader's motivational influence included a vision that directed followers'

attention toward the desired goal and communicated high performance expectations. Second, the **process** component communicated to followers the leader's own personal excitement about the desired goals or vision. Howell and Frost's process components were paralinguistic cues, nonverbal behaviors, and interaction style. The charismatic leaders had, in short, an enthusiastic communication style. This component is one way that the leader arouses followers' emotions to work toward the content of the vision. It includes the leader's enthusiasm for the vision and pertains to how the leader communicates the importance of the vision.

Conclusion

The charismatic leadership theories have at least three broad elements or components in common. First, a charismatic or transformational leader communicates a vision (Burns, 1978; Conger & Kanungo, 1987; House, 1977; Weber, 1947).

Second, the leader suggests or stimulates action to implement the vision (House, 1977). This can be in the form of intellectual stimulation and individualized consideration (Bass, 1985) or leader behaviors such as goal setting, role modeling, and image building (House, 1977).

Content can also take the form of task strategies, as suggested by Locke et al. (1991). Communicating task strategies is one way that the leader can intellectually stimulate followers (Bass, 1985) as well as disseminate information to followers (Locke et al., 1991). At a more macro or organizational level, this implementation of vision takes the form of a business strategy. However, at the level intended by this dissertation, the concept of task strategy is more relevant.

Third, a charismatic or transformational leader has an enthusiastic communication style (Bass, 1985), which is the process by which a leader communicates. This includes projecting high self-confidence, dominance, and moral conviction (House, 1977) as well as being likeable, trustworthy, and an expert (Conger & Kanungo, 1987) as well as possessing the personality trait of charisma. When communicating, charismatic leaders are inspiring (Bass, 1985; Conger, 1989).

Accordingly, this dissertation decomposed charismatic leadership into separate components of content (which had two sub-components, vision and vision implementation) and process, and examined the effects of each on followers' performance, attitudes, and perceptions. The next chapter presents theories and research on each of these components which are relevant to the variables in this dissertation.

Chapter 3
Vision, Vision Implementation, and Enthusiastic Interaction Style

This chapter presents research specific to each of the three charismatic leadership components. First, vision is examined, including the definition of a vision, the distinction between vision and goals, and research on vision. Second, vision implementation is examined, specifically focusing on the role of task strategy as a method of implementing vision. Third, the role of an enthusiastic communication style is examined. Finally, some potential mediators, which may link each of these three leader actions to follower performance are discussed.

Vision

To date, most research on the visionary process has been purely qualitative and anecdotal (except for Howell & Frost, 1989). Vision has been proposed as a method effective leaders elevate followers toward high performance (Bass, 1985; Bennis & Nanus, 1985; Burns, 1978; Conger & Kanungo, 1988; Conger, 1989; Tichy & Devanna, 1986). As stated above, the importance of the vision has stemmed from research on charismatic leadership

and transformational leadership (Bass, 1985; Bennis & Nanus, 1985; Burns, 1978; Conger & Kanungo, 1988). The vision is the core content of the leader's motivational influence.

Definition

A vision is a leader's "ideal and unique image of the future" (Kouzes & Posner, 1987, p. 85). In theory, one can make the distinction between a leader's uncommunicated vision, or the ideas that the leader has but is unable or unwilling to communicate, and the communicated vision, or the ideas that the leader actually communicates to the organization. For presentation purposes, I will not distinguish between these two concepts; thus, I will assume the leader is willing and able to communicate his or her vision. This assumption should be tested in future research. If a leader does not communicate the ideas, then it is not a vision but simply a personal fantasy.

The vision is often called a guiding principle, credo, or aspirations statement (Locke et al., 1991; Howard, 1990). It is a long-term, idealistic standard of excellence which is realistic but is never fully attained in practice. The vision is a total picture toward which the leader wishes to work. For example, Robert N. Beck (1987, p. 35), head of corporate human resources at BankAmerica Corp. states, "it was clear from...interviews

with the top three or four levels of management that there was not a shared business vision....Individuals knew their organizational goals to some extent, but they did not have a strong feeling of commitment and understanding as to where the corporation was going and why it existed." Subsequently, Beck and BankAmerica's employees developed a vision that gave them a common understanding of their company's purpose and future directions.

In addition to providing a common frame of reference, vision is a vehicle for change, allows for resolution of conflicts, maintains focus on larger issues, motivates employees, and sustains attention to excellence (Bradford & Cohen, 1984; Sashkin, 1988). An inspiring vision will energize and encourage employees to work toward the organization's goals and values; it will evoke emotions and impel individuals to work toward the vision (Berlew, 1974; Harrison, 1987).

The vision, when institutionalized, becomes "owned" by each individual in the organization. Each employee should know his or her role in the organization and be able to find a way to achieve the vision in accordance with this role.

Vision Statements. The vision is often complex and elaborate, containing many details. To communicate the vision easily to employees, leaders often summarize their

aspirations into a succinct vision statement or slogan (Locke et al., 1991). For the purposes of this dissertation, vision will be referred to as the elaborate, detailed long-term standard of excellence, while the vision statement will be referred to as the summary, often in the form of a slogan, of the vision. When communicating the vision, the leader often presents the reasons for and importance of the vision, the circumstances causing him or her to develop the vision, and the rationale for the vision; this may be followed and summarized by the vision statement.

Often, the vision statement is in the form of a metaphor or analogy. For example, cosmetics businesswoman Mary Kay Ash uses a bumble bee to represent the women who work for her (Conger, 1991, p. 39):

> [A] bee shouldn't be able to fly; its body is too heavy for its wings. But the bumblebee doesn't know this and it flies very well...They (women) come to us not knowing they can fly. Finally, with help and encouragement, they find their wings -- and then they fly very well indeed.

Leaders also use imagery and symbols to summarize their visions. Phil Turner, former head of Raychem's facilities division uses a hot air balloon to symbolize his vision of

uplifting people's spirits through beauty, cleanliness, and functionality, enthusiasm, good cheer, and excellence (Kouzes & Posner, 1987). Other examples of vision statements include the following (from Bradford & Cohen; Harrison, 1987; Kouzes & Posner, 1987):

"We do not sell flowers, we sell beauty."

"Keep the lights on!"

"Provide service that brings guests back to a hotel."

"Satisfy the customer every time!"

"Fix it right the first time!"

"News that people want to read in a weekly newspaper"

"Universal service at all levels" [AT&T]

"Value at a decent price" [Sears]

Visions and Goals

The above theories suggest that a vision affects the organization's goals as well as the individual's goals (Burns, 1978; House, 1977). A brief discussion of the distinction between these two concepts is warranted because the relationship between goals and charismatic leadership will be examined in more detail below.

Visions and goals are similar in that both imply standards of performance, direct an individual's attention toward specific outcomes, and are future oriented. However, some differences exist. First, goals can be

different for each employee, but visions are intended to be common to all. Visions are developed by a leader, often with input from many employees. The vision should suggest a specific goal for each individual and give each employee guidance as to what areas of the job are to be given the most attention and what areas are to be given the least attention.

Second, goals should be very specific, containing a certain quantity of performance to be attained in a specified, usually relatively short, period of time (Locke & Latham, 1990). An example is "Your goal is to assemble 30 widgets in 15 minutes." At the end of the time period, it is clear whether the individual attained the goal or not. Goals can be assigned, such as by a supervisor, can be set participatively, or can be self-set.

Visions, in contrast, are more general. They apply to groups, including organizations, departments, and work teams, although individuals can perform in accordance with a vision. As stated above, they are ideal, long-term ends. There is no specific time limit nor specific quantities of performance explicitly stated in the vision. For example, Steven Jobs, founder of Apple and NEXT computers, does not describe NEXT's vision as building X number of computers by a certain date. Instead, he talks

about NEXT's role in education and leading the software revolution on college campuses (Conger, 1991).

Third, there are a limited number of ways to achieve a specific goal, but there usually are many ways an individual can go about working toward a vision. For example, there can be many ways for a NEXT employee to work toward leading the software revolution besides production, such as executive planning, conducting market research, purchasing needed components, conducting technical research and development, and performing maintenance on equipment.

Due to the lack of research on vision, only untested prescriptions are available for describing the content of a vision. Bradford & Cohen (1984) state that overarching goals, which are similar to visions, should: (a) reflect the core purpose of the organization; (b) represent a feasible yet challenging goal; and (c) have larger significance for the organization. In addition, Sashkin (1988) proposes visions contain three themes: (a) Dealing with change. Especially relevant today is dealing with change in the environment, in markets, and in product technology. (b) Ideals. Effective visions specify ideal conditions or processes, not clearly defined final ends. Achieving the vision is a never-ending process. (c) People working together. As can be seen by the few examples

above, vision statements (and the visions they accompany) are widely used by leaders in organizations. Some visions have even outlasted the leader who first institutionalized them; an example is Johnson & Johnson's Credo (Bennis & Nanus, 1985). Based on a qualitative study of vision, Collins and Porras (1991) conceptualized vision as a general term that includes a guiding philosophy and a tangible image. The guiding philosophy is composed of the core beliefs and values that give rise to the organization's purpose. The tangible image is composed of the organization's mission which is a specific description of the desired end.

To date, there has been no known empirical research on whether vision and vision statements have any effects at all or what attributes make up an effective vision. Qualitative research, however, has recognized the importance of the vision for many years. For example, Bennis and Nanus's (1985) five year study with 90 effective leaders, using unstructured interviews, revealed that developing a vision was common to these leaders. Other qualitative work by Conger (1991), Kouzes and Posner (1987), Peters (1987), and Tichy and Devanna (1986) has also stressed the importance of the vision. To sum up, visions have been used by organizational leaders for at least several decades (Bennis & Nanus, 1985) but

organizational researchers have paid little attention to them.

Vision Implementation: Task Strategies

Although a vision can be highly motivating, the leader must take action to implement the vision (Locke et al., 1991; Sashkin, 1986, 1988). That is, employees may understand the vision, but may have difficulty making the transition from the long-term, general vision to the shorter-term, specific demands of their jobs. By itself, communicating task strategies to followers, is not considered leadership (Kotter, 1990). However, in conjunction with a vision, the task strategy represents one way to implement the vision.

There are many ways to implement a vision, including business strategies and task strategies. A task strategy is method for doing the work or a plan for reaching a goal (Campbell, 1991; Locke & Latham, 1991). For example, on a complex problem solving task, one task strategy would be to systematically vary each parameter to figure out the solution in a given period of time. This dissertation will concentrate on disseminating information in the form of task strategies as one method of implementing the vision.

Bass (1985) states that transformational leaders use intellectual stimulation as a means of motivating employees. Although transformational or charismatic leaders typically do not give followers specific and exact directions for completing a task, leaders often recommend some general ways the follower might carry out the task. Leaders show employees how to think in new ways and to challenge assumptions when solving problems (Bass, 1985) but do not give employees the answers. Leaders serve as teachers and coaches to employees at all levels of the organization (Bass, 1985; Conger, 1989; Peters, 1987).

Although Bass (1985) does not explicitly discuss task strategies as a means of intellectually stimulating followers, it is clear that one way to implement the vision via intellectual stimulation is to suggest some appropriate task strategies. Training individuals to use and develop relevant task strategies has a direct positive impact on task performance as well as an indirect effect through self-efficacy and goals (Earley, 1985; Locke, Frederick, Lee, and Bobko, 1984).

Similarly, a leader may communicate a business strategy for achieving the vision. Macro-strategies (i.e., strategic visions), or business strategies, are large-scale action plans for interacting with the environment (Jauch & Glueck, 1988) and are implemented at

the organizational level. However, it is not the macro-level, but the individual level task strategy, that is relevant to this dissertation.

Enthusiastic Communication Style

The enthusiastic communication style displayed by charismatic leaders has received little attention in the leadership literature compared to vision. However, charismatic leadership research is beginning to pay more attention to the process aspect as well as the content aspect. Enthusiasm is conveyed through nonverbal behaviors such as eye contact, facial expressions, paralinguistic behaviors (stance, movement patterns, body position), voice tone, and interaction style (Edinger & Patterson, 1983; Howell & Frost, 1989).

A charismatic leader is said to be enthusiastic (Conger, 1989). It is also likely that an enthusiastic individual is seen as charismatic, although these assumptions need to be tested. The two studies examined below provide some information about the nature of enthusiasm.

Friedman et al. (1980) developed a self-report measure of expressiveness, or charisma, called an affective communication test (ACT). Examples of items from the ACT are the following (Friedman et al., 1980, p.

335): "When I hear good dance music, I can hardly keep still," "I often touch friends during conversations," and "I usually have neutral facial expressions" (reverse scored). They showed that the 13-item (ACT) is a reliable and valid measure of individual differences in charisma. The ACT showed adequate convergent validity by correlating significantly with affiliation scales, dominance scales, and exhibition scales. It failed to correlate with harm avoidance, order, and play scales, thus showing adequate discriminant validity.

Smith (1982, as described by House et al., 1988) examined the effects of thirty leaders who had reputations for being charismatic and thirty leaders who were effective but had reputations for being non-charismatic. Reputed charismatic leaders were described as being significantly more dynamic than reputed non-charismatic leaders. Subordinates of charismatic leaders reported working longer work weeks, experiencing more meaningfulness in their work, and having higher trust in their leaders than subordinates of non-charismatic leaders.

Enthusiasm may be an important part of the communication process. For example, Conger (1991, p. 37) notes that Steven Jobs, founder of Apple and NEXT computers, takes an "aggressive stance behind the podium"

when describing Apple's competition. Conger (1989), in a study comparing charismatic to non-charismatic leaders, has found that charismatic leaders are effective and powerful speakers. When listening to charismatic leaders, followers reported enjoying listening, becoming intellectually stimulated, and becoming emotionally excited. In contrast, non-charismatic leaders were described as monotone and informative but not dynamic. On the other hand, Bennis and Nanus (1985), in a qualitative study of 90 leaders, concluded that a charismatic style (i.e. personality trait) was not essential to a leader's effectiveness. So, although an enthusiastic communication style may be associated with charismatic leadership, it may be that an enthusiastic communication style itself does not affect performance.

Mechanisms of Charismatic Leadership

The next logical step after having identified three components comprising charismatic leadership is to examine the effects of these components. Two types of effects may occur. First, the components could have direct effects on followers' performance, attitudes, and perceptions. Second, the components could have indirect effects on follower's performance, attitudes, and perceptions. Due to the fact that both direct and indirect effects of these

components have not been widely examined in the leadership research, both types of effects will be examined in this dissertation. Some possible mediating variables, or causal mechanisms, that may explain how a leader affects followers are examined next.

The literature implies several mediating variables through which a charismatic leader's behavior could affect follower performance (for example, Conger & Kanungo, 1988; House, 1977). That is, in addition to direct effects of leader behavior on follower performance, there may also be indirect causal mechanisms through which leader behavior affects followers' performance and attitudes. Examining such mediating relationships will provide insight into how leaders influence and motivate followers.

One plausible set of mediating variables are goal-setting variables (including goal level, goal commitment, and self-efficacy). Both goal level and self-efficacy have been shown to strongly affect performance variance (Bandura, 1986; Locke & Latham, 1990; Locke, 1991). According to Locke (1991), goals, self-efficacy, and performance constitute the motivation "hub." He argued that goals and self-efficacy are closest to action, thus implying that other variables must affect goals and self-efficacy in order to affect performance (Locke, 1991). This has already been found with respect to feedback

(Locke & Latham, 1990). That is, feedback affects performance through goals and self-efficacy; goals and self-efficacy serve as mediators of the feedback-performance relationship. Therefore, it makes sense to examine followers' goals and self-efficacy as mediators between leadership and followers' performance. These variables are examined below.

House (1977) specifically posits that charismatic leaders communicate and model high self-set goals, which can result in followers' setting and achieving high goals (Conger & Kanungo, 1988). Further, charismatic leaders may influence goal commitment (House, 1977). Goal commitment is one's acceptance of the goal and is necessary for goals to affect performance (Locke & Latham, 1990). House (1977) proposes that followers identify with and emulate the leader's values, goals, and behavior. Thus, when the leader communicates a vision, it may be that followers' accept the vision and become committed to the vision as well as to the specific goals implied by the vision.

House (1977) also argues that leaders have high expectations of followers. Leader communication of such expectations could result in followers feeling confident that they can perform the task well; this is referred to as the Galatea effect (Eden, 1990). The feeling of self-

confidence on a specific task, or self-efficacy (Bandura, 1986), may positively affect follower performance (Avolio & Gibbons, 1988).

So, if through the vision, the leader communicates an ideal goal as well as the confidence that such a goal can be reached, this may affect followers' personal (self-set) goals and self-efficacy and in turn affect followers' performance.

Conclusion

Two main components of charismatic leadership are content (vision and vision implementation, in this case, task strategy) and process (enthusiastic communication style). Visions are becoming more and more commonly used by organizational leaders. Visions and vision statements can be found in large organizations, such as Apple, AT&T, Chrysler, General Electric, Johnson & Johnson, Mary Kay Cosmetics, McDonald's, NEXT, and in small organizations, such as local electric companies, departments of larger organizations, branch offices of banks, and even neighborhood grocery stores. An effective leader must take steps to implement or carry out the vision such as by suggesting suitable strategies. By having an enthusiastic communication style, the leader is thought to energize and enthuse others. These components may have direct effects

on followers' performance, attitudes, and perceptions as well as indirect effects, through goals and self-efficacy, on followers' performance. By closely examining these components in a controlled setting we can isolate the effects of each component.

Chapter 4

Research Propositions

Based on the research in Chapters 2 and 3, propositions about the effects of each component on followers' performance, attitudes, and perceptions are presented as well as propositions regarding the mediating variables.

Vision

Many different types of visions can be developed, such as a vision for quality, customer service, or market dominance. Due to the importance of quality in today's global economy (Peters, 1987), this dissertation focused on the effects of a quality vision.

Due to the fact that vision can be seen as a type of goal, it seems likely that a quality vision will inform followers to aim for high quality when performing their tasks, resulting in high performance quality. It is proposed that:

> Proposition 1: A quality vision communicated by the leader will result in higher performance quality than a leader who communicates no vision.

Charismatic leaders also are said to affect followers attitudes and perceptions about the task and about the leader. First, charismatic leaders have an impact on several types of attitudes. It is widely espoused that charismatic leaders affect followers' emotions or affect. Charismatic leaders inspire and uplift followers (Bass, 1991; Conger, 1991; House, 1977). Thus, the vision may uplift followers' mood state and increase followers' task satisfaction. A motivating and inspiring vision may carry over to affect follower motivation in the form of enthusiasm for the task and enthusiasm for the vision. Also, the literature posits that charismatic leaders compel followers to pursue the goals of the group and organization (Bass, 1985; House, 1977). In this dissertation, this was measured as the followers' willingness to work for the leader in the future for low pay or as a volunteer. This represented forgoing one's self-interest for the good of the company.

Second, charismatic leaders are perceived differently than non-charismatic leaders. Vision may result in increased congruence between followers' and leaders' beliefs and values (House, 1977; McClelland, 1985; Sashkin, 1988). Trust in the leader may be an important outcome of a communicating a vision (House, 1977). Similarly, followers may like a leader who communicates a

vision more than a leader who does not communicate a vision. The vision is also an important component in followers perceiving the leader as charismatic (Bass, 1985; House, 1977). Bass (1985) states that transformational leadership is associated with increasing followers' intellectual stimulation and inspiration. Charismatic leaders may also increase task clarity for the followers.

Based on the above theories, the impact of charismatic leaders are proposed to affect follower attitudes and perceptions in the following manner:

> Proposition 2: Communication of a vision, compared to no vision, by the leader will result in positive effects on each follower attitude and perception (namely, task satisfaction, mood state, enthusiasm for task, enthusiasm for vision, willingness to work, congruence of beliefs, trust in the leader, liking the leader, charisma, intellectual stimulation, inspiration, and task clarity).

Although a global, multivariate test could be conducted, this dissertation focuses on the effects of each separate dependent variable. Thus, the proposition will be tested using univariate methods.

Vision Implementation: Task Strategies

As one way of implementing the vision, the leader can disseminate information in the form of a task strategy. A task strategy would give specific information to followers regarding how to attain the vision in practice. Assuming that the task strategy is suitable to the task, the strategy should positively affect performance. It is proposed that:

> Proposition 3: The task strategy presented by the leader will have positive effects on performance quality and/or performance quantity, as compared to no task strategy.

By itself, task strategy is not considered leadership unless it occurs in combination with a vision. Simply providing task strategy information by itself should not affect followers' attitudes or perceptions that are related to leadership, except for intellectual stimulation. A significant effect of task strategy on intellectual stimulation would provide a manipulation check that the task strategies were, in fact, suitable to the task. Thus, no main effects on follower attitudes and perceptions are predicted.

However, the interaction of task strategy and vision could affect follower attitudes and perceptions because the task strategy could supplement the vision. This

proposition is exploratory and tests the possibility that charisma cannot be decomposed but rather is only perceived as a whole, or gestalt, as compared to separate elements. It is proposed that:

> Proposition 4: A leader who communicates a vision and communicates a way to implement the vision will have a disproportionately positive effect (i.e., a significant interaction) on each follower attitude and perception (namely, task satisfaction, mood state, enthusiasm for task, enthusiasm for vision, willingness to work, congruence of beliefs, trust in the leader, liking the leader, charisma, intellectual stimulation, inspiration, and task clarity) as compared to a leader who only communicates a vision or only displays enthusiasm.

Enthusiastic Communication Style

Leaders can have different but equally effective content and yet have different styles of communicating the vision. No proposition is made regarding the effects of enthusiasm on performance because, unlike content, enthusiasm does not give followers any specific standards or suggestions regarding how to perform. Regardless of vision content, an enthusiastic leader may affect

followers' attitudes and perceptions more than a non-enthusiastic leader. That is, the leader's activity level, which is used to communicate the leader's own high motivation, may become contagious (Conger, 1988). It is proposed that:

> Proposition 5: A leader who displays enthusiastic behavior will more positively affect each attitude and perception (namely, task satisfaction, mood state, enthusiasm for task, enthusiasm for vision, willingness to work, congruence of beliefs, trust in the leader, liking the leader, charisma, intellectual stimulation, inspiration, and task clarity) than a leader who displays unenthusiastic behavior.

When enthusiasm is paired with a compelling vision, the effects on follower attitudes may be even greater than a vision alone or enthusiasm alone. This could occur because a high enthusiasm level may show that the leader is enthused by the vision which may then get the followers excited about and committed to the vision. Again, this proposition is exploratory and tests the possibility that charisma is perceived as a whole rather than separate components. Thus, an interaction between vision and enthusiasm is proposed that:

> Proposition 6: A leader who communicates a vision and displays highly enthusiastic behavior

will have a disproportionately positive effect (i.e., a significant interaction) on each follower attitude and perception (namely, task satisfaction, mood state, enthusiasm for task, enthusiasm for vision, willingness to work, congruence of beliefs, trust in the leader, liking the leader, charisma, intellectual stimulation, inspiration, and task clarity) as compared to a leader who only communicates a vision or only displays enthusiasm.

Mediating Mechanisms: Goals and Self-efficacy

Goal-related variables (personal goal, anticipated satisfaction, goal commitment, and self-efficacy) may mediate the leadership-performance relationship. Specifically, it is expected that goal-related variables will mediate between vision and task strategies (but not enthusiasm), and follower performance. Goal-related variables are not expected to mediate the enthusiasm-performance relationship because neither high nor low enthusiasm communicate specific information to followers regarding the task. Accordingly, it is proposed that:

Proposition 7: Goal-related variables (namely, personal goal, goal commitment, and self-efficacy)

will serve as a mediator between vision and follower performance.

Proposition 8: Goal-related variables (namely, personal goal, goal commitment, and self-efficacy) will serve as a mediator between task strategy and follower performance.

The study design and method are presented in the next chapter.

Chapter 5

Design and Method

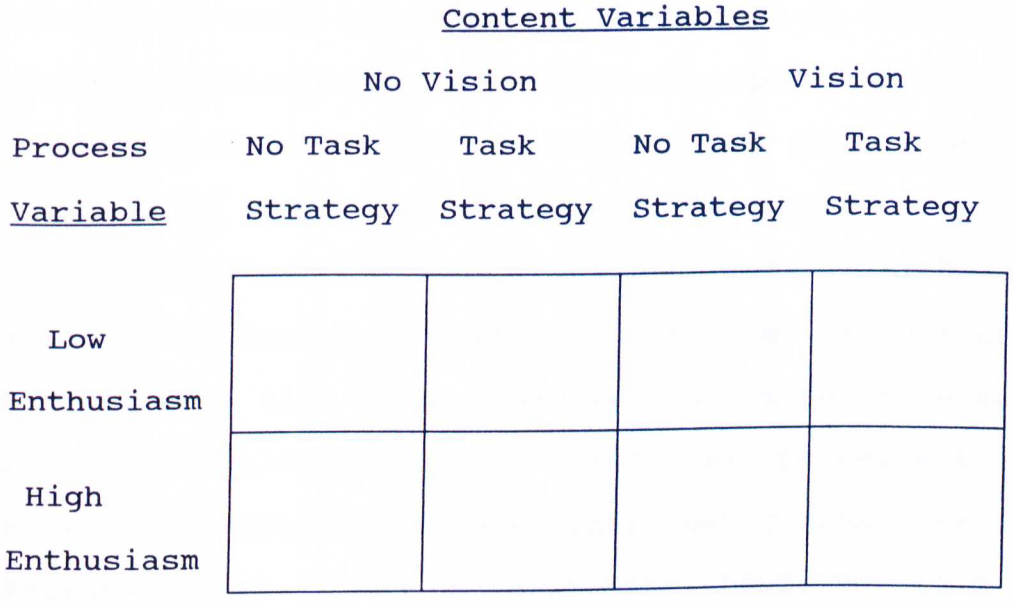
Design

This dissertation empirically examined the effects of 2 levels of vision (no vision and vision), 2 levels of task strategy (no task strategy and task strategy), and 2 levels of enthusiasm (low and high) on performance, attitudes, and perceptions in a completely crossed, between subjects design in a laboratory setting using a simulated task. The vision variable and the task strategy variable represent two aspects of the content of charismatic leadership. Enthusiasm represents the process aspect of charismatic leadership. The design is shown in Figure 1.

One-half of the subjects within each cell were exposed to the male leader, and one-half were exposed to the female leader. Each leader conducted two sessions, or "runs", of each cell in order to examine the consistency with which the manipulations were carried out. No differences between the male and female leader were expected, and no differences between session 1 and session 2 were expected. These assumptions were tested and results are presented in chapter 6.

Figure 1

Research Design



The laboratory setting was considered justifiable for two reasons. First, in practice, charismatic leaders exhibit both content and process components. In a field setting, it would be virtually impossible to observe an equal proportion of leaders for each experimental cell. Second, previous research has shown that it is possible to successfully manipulate charismatic leadership in a laboratory situation (Howell & Frost, 1989). Although trusting the leader and commitment to the vision must be built up over time in an organization, it has been shown that individuals are able to immediately perceive a leader's charisma and observe charismatic behaviors (Friedman et al., 1980; Hater & Bass, 1988; Howell & Frost, 1989).

Subjects

Students in two third-year business classes participated in the study in exchange for a class bonus. A total of 282 subjects participated. Fifty-two percent of the subjects were male and 48% were female. Fifty-nine percent were currently employed full- or part-time. Ninety-eight percent had been previously employed. Thus, it was assumed that the subjects had enough work experience to understand the leader and the content of the manipulations.

Task

The task was a simulated production task. Subjects inserted pages into sections of notebook binders according to task instructions. For realism, the task was derived from an actual binder assembly task done in printing companies and was adapted for use in a laboratory setting. The task had a quantity (number of pages inserted) and a quality component (number of errors). For practical reasons, three binders were used: binder 1 for the practice session, binder 2 for trial 1, and binder 3 for trial 2.

A pilot test with 12 subjects from the above business classes revealed that subjects found the task difficult but not impossible. For a 10 minute session, subjects had a mean of 5.0 errors and inserted a mean of 16.3 pages across the three binders. There was considerable variability in performance, with errors ranging from 0 to 22 (s.d.=6.0) and pages ranging from 0 to 42 (s.d.=9.9).

The difficulty level of each binder was approximately equal. The mean number of errors (and respective standard deviations) for binder 1 was 4.1 (s.d.=5.8), for binder 2 was 6.0 (s.d.=7.1), and for binder 3 was 2.3 (s.d.=2.1). The mean number of pages for binder one was 9.4 (s.d.=5.7), for binder 2 was 22.5 (s.d.=5.3), and for binder 3 was 27.7 (s.d.=18.3). (Note: Due to an unequal

number of subjects across binders, the mean number of errors and pages presented here are weighted means). Post-experimental interviews with the subjects confirmed that they found the task difficult. Although their performance increased as they went through the binders, indicating a practice effect, there was considerable variability in performance for all three binders.

In addition, post-experimental interviews revealed the types of work methods the subjects used and which of these work methods were more or less effective. This information was used to develop the task strategy manipulation. The pilot test confirmed that the most effective way to perform the task was to write out the order of the pages before inserting them. The following additional work methods were also determined to be effective: (a) using adjacent desks to place the stack of pages and binders or somehow organizing the materials so they are easy to reach, (b) double checking the order of the pages before inserting them, (c) reading the instructions carefully, (d) paying close attention to the titles of the pages due to the similarity in many of the titles (e.g. "equations and inequalities" and "systems of equations and inequalities"), and (e) collecting all the pages needed for a section before inserting them. Two task strategies that subjects thought were effective were,

in fact, not effective at all. Spreading out the pages on the floor and taking the pages out of alphabetical order led to more errors and fewer pages inserted than not using these strategies. Thus, performance was a function of proper work organization as well as a function of motivation due to the considerable effort and attention required to assemble the binders correctly (Locke & Latham, 1990).

Procedure

Experimental runs were conducted in groups of 4 to 12 per session by condition. The order of the runs was determined randomly.

Each subject performed the task on an individual basis with work areas separated as much as possible to prevent communication between the subjects.

Sessions lasted about 2 hours. Introductory instructions and consent form completion was approximately 10 minutes in length, the practice trial was 10 minutes, the trials were 30 minutes total, scoring was 20 minutes total, questionnaire completion was 30 minutes total, and the manipulations were 8-9 minutes. The vision and no vision manipulations were the same length (8 minutes), but the task strategy manipulation was approximately 1 minute longer than the no task strategy manipulation.

Upon arriving for the experiment, each subject completed a consent form. Then, the experimenter read a brief set of instructions and cover story, explaining that the College of Business and Management is working with BKC, a printing company in Columbia, Maryland, to study "task design." The subjects were told that the leader would be arriving shortly and until then, they would be working on a practice binder. They then performed a 10 minute practice trial which was the same difficulty as the other trials. By purposefully making the practice trial difficult, it was possible to examine the effects of the leader "uplifting" the subjects' mood.

After subjects scored the practice binder, the experimenter called the leader into the room. From this point on, the leader ran the experimental session, gave all directions to subjects, and the experimenter remained to facilitate running the experiment (i.e. distributing materials). The leader briefly gave some background information on the company and then performed according to the appropriate script and the appropriate manipulation.

There were two trials of 15 minutes each. Performance for each of two trials was recorded in order to analyze the effects of learning throughout the experiment. It may be that subjects' performance in one

condition increases at a faster rate than for those in another condition.

After each trial, subjects recorded the number of pages inserted and were given a scoring key to record pages and errors for that trial. Subjects were debriefed after the entire data collection process was completed. To ensure consistency in scoring, the experimenter scored each subject's work after subjects were dismissed from the experiment. The experimenter's scores were used for data analysis purposes.

Actor Selection

One professional male actor and one professional female actor were hired to carry out all manipulations by portraying the leader. The actors were recruited through a local professional actor's service. The male actor was selected from 16 inquiries, and the female was selected from 21 inquiries about the position. The basis for choosing the actors was the following: (a) ability, as determined through an audition and reading of the script, to portray both the high and low enthusiasm behaviors and (b) availability for desired days and times. The actors chosen were similar in age (39 and 43) and attractiveness (as subjectively perceived by the author).

In addition, both actors had previous leadership experience. The male actor was the founder of a local

theater which had produced hundreds of productions over the past 10 years. He also had some work experience in a printing company. The female actor founded and operated her own antique store.

To reduce the possibility of contamination if subjects told each other about the experiment, the male actor played the role of CEO and the female actor played the role of President of the company. Howell and Frost (1989) used two female actors with similar physical features and found no differences between them, but this dissertation varied the leader gender while choosing the actors of similar attractiveness and age. No differences between the actors were predicted.

Actor Training

Approximately 30 hours of training was given to the actors over a 5-week period. In addition, the actors spent their own time memorizing and rehearsing the scripts. About 30% of the training time covered the following topics: (a) an overview of the research process emphasizing the importance of experimental control; (b) an explanation of the study design and variables without indication of hypotheses or expectations; (c) positive and negative examples of charismatic leaders via articles and videotapes; (d) review of possible questions that subjects may ask and review of appropriate responses. The

remaining 70% of the training was spent rehearsing the scripts and behaviors and providing feedback to the actors.

After all experimental sessions were completed, the actors were debriefed and given the results of the experiment.

Manipulations

Vision Manipulation

The vision manipulations were longer and more detailed than the vision expressed by the leader in Howell and Frost's (1989) charismatic leadership manipulation. The vision manipulations of the present study were expected to be more realistic and informative. Conger's (1989) research found that actual charismatic leaders express similar types of visions, including describing the way the vision came about, its importance, key examples of employees acting in accordance with the vision.

Vision. The leader told two stories that illustrated the vision and its importance. These stories were examples of how the employees have acted in accordance with the vision, showing their commitment to the vision. The leader then read a formal vision, ending with the vision statement (BKC is bound to quality!), which stressed quality. Finally, to arouse follower motives to

perform well, the leader told the subjects that their performance would later be compared to that of two competing printing and binding companies. The leader then inspired them and increased their self-confidence by saying that although the task is difficult, he/she really thinks that they will do a super job. Each aspect of the vision manipulation is an important part of a charismatic leader's content (House, 1977). This script is shown in Appendix A.

No Vision. No vision was communicated to the subjects. To allow the leader the opportunity to display the appropriate enthusiastic behaviors and to equalize the time the leader talked to the subjects, the leader presented factual information about the process of making paper. This was so that the leader would appear credible without communicating a vision. This script is shown in Appendix B.

Task Strategy Manipulation

Task Strategy. The leader suggested some possible task strategies for achieving the vision. He/she told the subjects that employees in the training department have developed some techniques for doing the task. The leader then gave suggestions about which methods (as presented above) were effective and which were ineffective. This

information was in accordance with the vision. This manipulation is shown in Appendix C.

No Task Strategy. No task strategy or work methods were suggested by the leader.

Enthusiasm Manipulation

The enthusiasm manipulations were similar to those used by Howell and Frost (1989) in their charismatic leadership condition. Also, the enthusiasm components manipulated here (paralinguistic and nonverbal behaviors) have been identified by Conger (1989) as exhibited by actual charismatic leaders.

High Enthusiasm. The leader showed enthusiasm toward the task and the subjects' performance but did not show differential attention or approval to individual subjects. He/she displayed nonverbal charismatic behaviors, including a powerful, confident, and dynamic presence. Upon entering the room, the leader shook hands with the experimenter and with the subjects. As in the Howell and Frost study, the leader alternated between pacing around the front of the room (he/she did not pace up and down the aisles, as subjects could have perceived this as a type of attention or reward) and leaning forward and sitting up straight in the chair when sitting. The leader made eye contact with the subjects and used hand gestures when speaking. The leader had animated facial expressions when

speaking. The leader spoke with a captivating and engaging voice tone, alternated the pace and loudness of speaking, and used pauses to emphasize points. The leader continued to display these behaviors throughout the experiment.

Low Enthusiasm. In this condition, the leader did not display any of the above enthusiastic behaviors, but simply carried out his/her role with neutrality toward the task and the subjects' performance. When entering the room, the leader simply greeted the experimenter but did not shake hands with the experimenter or subjects. While appearing friendly and polite, he/she simply sat relaxed in the chair behind the desk, did not pace around the room, and did not show interest in the subjects' work on the task. The leader spoke clearly but in a monotone voice and spoke with a constant pace and medium voice tone. His/her presence was uninvolved, including remaining seated for most of the experiment and appearing relaxed in the chair when sitting. The leader continued to portray these behaviors throughout the experiment.

Realism of Manipulations

Realistic manipulations and control over the experimental setting was built into the study in several ways. First, professional actors were used to reduced any random inconsistencies in behavior that may occur across

experimental sessions. To reduce experimenter expectancy effects, the actors were blind to the study's hypotheses (Rosenthal & Rosnow, 1969), although it is possible they may have guessed the hypotheses.

Second, rather than present the manipulations via videotape, the actors carried out the manipulations live. This was to increase the power of the effects as well as increase realism.

Third, the manipulations were framed around an actual publishing company. The task and manipulations were developed in consultation with Mr. Bart Kinlein, the founder of the actual company. Participants were told that the company, BKC Publishing, was working with researchers at the University of Maryland to study "task design."

Fourth, approximately 30 hours of training sessions increased the actors' ability to exhibit the appropriate manipulations. All actions and communications during the experiment were specified in scripts.

Measures

Dependent variables, exploratory mediating variables, manipulation checks, general background information, and subjects' questions to leader were measured as indicated below. The summary of the variables is shown in Figure 2.

Dependent Variables

Performance. Performance during the practice session served as a measure of ability, which was used as a control variable during the data analysis. Quality and quantity of performance were measured as the number of errors and the number of pages, respectively. (Note: A ratio variable of errors per page was also examined, but was highly correlated, r=.90, p<.001, with performance quality and thus yielded the same results as performance quality.)

Attitude and Perception Variables

The following attitude and perception variables were measured via questionnaires:

(a) The subjects' mood was measured using a mood adjective list (see Table 1 for the complete list of adjectives) (Judge & Hulin, in press). Subjects indicated the extent to which they felt each of various emotions during the experiment using a 5-point scale (1 = very slightly or not at all to 5 =very much). To assess the degree to which the leader can change the subjects' mood, a mood adjective checklist was completed directly after the practice session (before the leader manipulations) and after the second session. This measure has been used previously to measure mood (Judge & Hulin, in press) and has shown good internal consistency reliability (α = .92).

Figure 2

Summary of Variables

INDEPENDENT

I. Vision (content)

II Task Strategy (content)

II. Enthusiasm (process)

DEPENDENT

I. Performance

A. Quality

B. Quantity

II. Attitudes

A. Mood State

1. Anxiety

2. Energy

B. Task Satisfaction

C. Enthusiasm for Task

D. Enthusiasm for Vision

E. Willingness to Work

III. Perceptions

A. Congruence of Beliefs and Values

B. Trust in Leader

C. Liking the Leader

D. Charisma

E. Intellectual Stimulation

(Figure 2, cont.)

F. Inspiration

G. Task Clarity

MEDIATING (exploratory)

I. Goals

A. Goal Level (personal)

B. Anticipated Satisfaction

C. Goal Commitment

D. Self-efficacy

OTHER MEASURES

I. Manipulation Check

A. Vision

B. Task Strategy

C. Enthusiasm

II. General Background

A. Age

B. Gender

C. Work experience

III. Qualitative Data

A. Subjects' Questions During Experiment

B. Subjects' Comments

C. Experimenter's Observations

D. Actors' Comments

Principal components analysis of the scale using varimax rotation revealed two principal components, anxiety and energy. The results of the principal components analysis is shown in Table 1. Thus, two mood scale scores were computed, one for energy and one for anxiety.

To avoid any demand characteristic effects or social desirability effects, the following attitude and perception items were measured, using a 7-point scale (1 = strongly disagree, 7 = strongly agree), after the second session only. The complete list of attitude and perception items are presented in Appendix D (except for the mood items, which are shown in Table 1). An example item from each scale and the internal consistency reliability are presented below.

(b) Task satisfaction (e.g. "In general, I was satisfied when doing the task"). α = .92.

(c) Enthusiasm for task (e.g. "I thought this task was really fun"). α = .88.

(d) Enthusiasm for vision (e.g. "I was enthusiastic about assembling high quality binders"). α = .75.

(e) Willingness to work in the future for the leader under conditions of below market pay or no pay (e.g. "Even if the pay were 10% below average, I would like to work for the [leader] in a future job"). α = .69.

Table 1

Principal Components Analysis of Mood Scales

Mood	Pre-experiment		Post-experiment	
Adjective	Anxiety	Energy	Anxiety	Energy
Distressed	.71	.02	.76	.03
At Rest	-.47	-.31	-.54	-.10
Fearful	.69	.07	.68	.09
Hostile	.67	-.16	.73	-.16
Calm	-.65	-.32	-.69	-.12
Jittery	.62	.19	.67	.11
Nervous	.69	.09	.72	.17
Relaxed	-.69	-.21	-.67	-.03
Scornful	.56	-.13	.64	-.20
Active	.28	.57	.23	.56
Drowsy	.09	-.76	.12	-.69
Elated	.23	.32	.08	.49
Dull	-.04	-.58	.06	-.66
Sleepy	.00	-.77	.04	-.73
Placid	-.28	-.39	-.25	-.31
Enthusiastic	.09	.52	.06	.68
Sluggish	.17	-.70	.17	-.68
Peppy	.18	.50	.27	.58
Strong	.01	.20	-.02	.39

(f) Congruence between subjects' beliefs and values and those communicated through the vision (e.g. "Quality is the most important aspect of this job"). α = .60.

(g) Trust in the leader (e.g. "I have complete trust in the [leader]"). α = .84.

(h) Liking of the leader (e.g. "This [leader] is a really likeable person"). α = .84.

(i) Two charisma scales were used to determine which variables are related to the subjects' perceptions of the leader's charisma. The first scale was from relevant items from Bass' (1985) MLQ - Form 8Y. Two items from the Form 8Y scale were deemed irrelevant and were omitted. The second was a more recent version of this scale, the MLQ - Form 5R, which is published by Consulting Psychologists Press, Inc. For Form 8Y, α = .92 and for Form 5R, α = .92.

The two charisma scales were highly correlated (r=.83, p<.0005) and had the same pattern of relationships with the other variables of interest. Thus, the Form 8Y scale was used for all analyses.

(j) Intellectual stimulation (e.g. "The [leader] provided me with new ideas about assembling the binder sections"). α = .87.

(k) Inspiration (e.g. "The [leader] heightened my motivation to succeed"). α = .95.

(1) Task clarity (e.g. "I knew exactly what to do on this task"). α = .86.

Mediating Variables

The exploratory mediating variables were measured before each trial but after the manipulations by the leader had been given. Due to the fact that subjects were not given any standards against which to judge their goals or performance and the fact that these measure do not involve evaluating the leader, completing these measures before each trial was not expected to yield any reactive effects. Appendix E presents the goal items.

The goal, anticipated satisfaction, goal commitment, and self-efficacy measures were combined into scales because they showed a consistent pattern between trial 1-performance correlation and trial 2-performance correlation for each goal measure. This indicates that the goal-performance relationship did not change across trials. Also, the goal commitment items showed high internal consistency reliability. These scales were used for purposes of all data analysis. The following items were completed with respect to quality and quantity before each of the two trials:

(a) Personal (self-set) goal level. The quality goal was measured by the item "What is the most number of errors that you would find acceptable to make, that is,

your minimum goal for quality?" Quantity goal was measured by the item "What is the least number of pages that you would find acceptable to insert, that is, your minimum goal for quantity?" The two personal goal measures were significantly correlated across the two trials (r=.60, p<.01 for quality and r=.44, p<.01 for quantity), and thus were combined across trials into personal goal for quality and personal goal for quantity scales.

(b) Anticipated satisfaction or valence is a related, yet independent measure of goal level (Locke & Latham, 1990). Anticipated satisfaction was measured by having individuals indicate the degree to which they "anticipated being satisfied with each level of performance with respect to errors" (on a 9-point scale, performance levels ranging from 0 to 20 errors in units of 2) and "with respect to pages" (on a 9-point scale, performance levels ranging from 0 to 50 pages in units of 5). The measure of anticipated satisfaction has been shown to have construct validity and is negatively related to goal level (Mento, Locke, & Klein, in press). Anticipated satisfaction for quality and for quantity were combined across trials because they were significantly correlated across the two trials (r=.56, p<.01 for quality and r=.45, p<.01 for quantity).

(c) Goal commitment for quality and quantity was measured by asking individuals to rate five items on a 7-point scale (i.e., "It is quite likely that this quality goal may need to be revised," "I am strongly committed to pursuing this quantity goal"). These items have been shown to have construct validity (Hollenbeck, Klein, O'Leary, & Wright, 1988). These items showed high internal consistency for quality (α = .85) and quantity (α = .88) and were significantly correlated across the two trials (r=.72, p<.01 for quality and r=.78, p<.01 for quantity). Goal commitment items for quality and for quantity were each combined into scales.

(d) Self-efficacy strength and self-efficacy magnitude have been shown to be related to performance (Locke & Latham, 1990). Self-efficacy strength was measured by asking subjects to indicate (on 1 to 10 scale) their confidence in making each number of errors, from 0 to 20 (in units of 2 errors), for quality, or each number of pages, from 0 to 50 (in units of 5 pages), for quantity. Self-efficacy magnitude was measured by asking subjects to indicate (yes or no) whether they thought they could correct that percentage of errors, from 0 to 20 (in units of 2 errors), for quality, or each number of pages, from 0 to 50 (in units of 5 pages), for quantity. Both of these measures are recommended by Locke & Latham (1990).

Internal consistency reliability for the self-efficacy for quality and quantity scales respectively was $\underline{\alpha}$ = .81 and $\underline{\alpha}$ = .80. It should be noted that due to the significant correlation between the self-efficacy strength and self-efficacy magnitude scales (mean $\underline{r}$=.71, $\underline{p}$<.01), the z-scores for these scales were combined into a single self-efficacy scale. High correlation between these measures is common (Locke & Latham, 1990).

Manipulation Checks

Manipulation checks determined the extent to which subjects' perceived the intended manipulations. The manipulation check items were combined into scales based on an a priori basis and because the coefficient alpha measure showed high internal consistency reliability. These were completed on a 5-point scale after the second session:

(a) Vision items assessed the extent to which the subjects perceived the leader communicating BKC's vision and long-term goals (e.g. "The [leader] provided a vision of what BKC was all about"). $\underline{\alpha}$ = .89.

(b) Task Strategy items assessed the extent to which the subjects felt they were given tips and suggestions by the leader on how to perform the task (e.g. "The [leader] gave specific tips for performing the task"). $\underline{\alpha}$ = .92.

(c) Enthusiasm items assessed the extent to which subjects perceived the leader as enthusiastic in general and the extent to which the leader displayed enthusiastic behaviors (e.g., pacing, eye contact, voice) (e.g "The [leader] was very enthusiastic when talking," "The [leader] paced around the room for a good part of the experiment"). α = .85.

General Background Information

These items were completed after the second session and included the subject's age, gender, and whether the subject has been employed or is currently employed.

Qualitative Data

Qualitative data from several sources were collected in order to gain insight into the results of the experiment. The number and content of subjects' questions to the leader were written down by the experimenter immediately following each session. Rather than denying subjects the opportunity to ask the leader questions, the effects of each condition were allowed to emerge naturally. For example, highly enthusiastic leaders, through their nonverbal behaviors, may invite more questions than a less enthusiastic leader. Due to the fact that it may be impossible to stop the subjects from asking questions, the leader in each condition asked the subjects if they had any questions. By recording what was

asked, it was possible to qualitatively analyze the effects of the process and content on subjects' willingness to interact with the leader. As indicated above, prepared responses to the questions were given by the leader when possible.

Also, subjects were asked to write comments at the end of their experiment regarding their impressions of the experiment and the leader and regarding whether the leader affected their performance or attitudes toward the leader.

The experimenter's observations of the leader's effects on the subjects and the general atmosphere of the experimental sessions was expected to be helpful when interpreting the quantitative results. Finally, the actors' impressions of the training sessions and experimental sessions was expected to yield similar insight.

Chapter 6

Results: Pilot Ratings, Manipulation Checks, Assumptions, and Independent Variable Effects

Pilot Ratings of Actors

Thirty-nine independent observers, blind to the conditions, rated the extent to which they perceived each actor portraying the process manipulations and vision manipulation; due to the fact that these observers did not perform the task, vision was the only content condition manipulated. For this pilot test the actor and the process manipulation was between-subjects, and the content manipulation was within-subjects. That is, each subject saw either the male or female actor and observed either high or low enthusiasm. Each subject heard both the vision and no vision manipulation, counterbalanced across the pilot sessions. Subjects then completed the manipulation check items for these variables.

Twenty subjects observed the male actor. The subjects' ratings revealed that they were able to distinguish between the vision and no vision scripts (t=5.55, p<.0005). They were also able to determine whether the male actor displayed low or high enthusiasm (t=8.78, p<.0005).

Nineteen subjects observed the female actor. Again, the subjects distinguished the vision from the no vision scripts (t=9.59, p<.0005) and determined whether the female actor displayed high or low enthusiasm (t=4.66, p<.0005).

Thus, it was confirmed that each actor was portraying the process behaviors as intended and that the content of the communication was as intended. These variables were perceived by the observers as intended. No changes were made to the process behaviors or to the vision manipulation.

Also, this pilot session revealed that the subjects did not have any significant questions to ask the leader, probably because the scripts were not intended to raise questions. Subjects were asked to write down any questions that came to mind as the leader spoke, but less than 10 questions were recorded. After the pilot, these questions were reviewed with the actors to assist them in preparing for the actual experiment.

Manipulation Checks

The means and standard deviations of the vision manipulation check scale were 2.36 (.80) and 4.45 (.50) for the no vision and vision conditions respectively.

These means were significantly different (t=26.24, p<.0005).

The means and standard deviations of the task strategy manipulation check scale were 1.57 (.81) and 3.86 (.91) for the no task strategy and task strategy conditions respectively. These means were significantly different (t=22.16, p<.0005).

The means and standard deviations of the process manipulation check scale were 2.49 (.75) and 3.59 (.78) for the low enthusiasm and high enthusiasm conditions respectively. These means were significantly different (t=11.94, p<.0005).

Although the independent variables were orthogonally manipulated, the independent variables may not have been perceived as such. The three manipulation check scales were all significantly intercorrelated (r=.17 for vision with task strategy, r=.36 for vision with enthusiasm, r=.25 for task strategy with enthusiasm; all p<.01). In addition, the vision condition and the task strategy condition (dummy coded) were each positively related to the enthusiasm manipulation check scale (r=.26, p<.01 and r=.18, p<.01, respectively). So, subjects who were in the vision or task strategy conditions were more likely to report that the leader was enthusiastic than subjects in no vision or no task strategy conditions.

This indicates that the manipulations were not perceived as totally orthogonal. Still, the manipulations were regarded as successful due to the fact that the manipulations were orthogonally manipulated and that each variable was perceived as intended (i.e. subjects correctly indicated whether they were in the vision or no vision condition, task strategy or no task strategy condition, and high or low enthusiasm condition).

Assumptions Regarding Manipulations

Session 1 versus Session 2

Each cell was run by each actor two times, thus comprising two sessions per actor per cell. To test whether the actors consistently carried out the manipulations for session 1 and session 2, *t*-tests were conducted. For the vision manipulation check scale, the means (standard deviations) were 3.39 (1.24) for session 1 and 3.45 (1.25) for session 2. These means were not significantly different (*t*=.44, *ns*). The means (standard deviations) for the task strategy manipulation check scale were 2.76 (1.50) for session 1 and 2.64 (1.36) for session 2. These means were not significantly different (*t*=.66, *ns*). The means (standard deviations) for the enthusiasm manipulation check scale were 3.15 (1.02) for session 1 and 2.92 (.84) for session 2, which were not significantly

different (t=2.00, ns). Thus, subjects present at the first session of a given cell did not perceive the manipulations as significantly different than the subjects present at the second session of that cell. This finding provides support that the actors consistently portrayed the desired behaviors. All analyses conducted were based on combining across the experimental sessions within a given cell.

Male versus Female Actor

To test whether the male actor carried out the manipulations differently than the female actor, an analysis of variance was computed for each manipulation check scale. These computations were also used to test for the presence of an interaction of actor with subject gender.

There were no significant differences between the actors for the vision [F (1, 274) = .89, ns] or task strategy [F (1, 275) = .24, ns] manipulation check scales. This indicates that the vision and task strategy variables were perceived the same regardless of actor.

There was a significant difference between the actors on the enthusiasm manipulation check scale [F (1, 274) = 11.2, $p<.01$]. The means, 3.22 for the male actor and 2.86 for the female actor, indicate that the male actor was perceived as significantly more enthusiastic than the

female actor. Additional analyses were conducted to test whether there were any differences in the actors' effects on any of the performance, attitude, or perception variables. These tests showed that the male actor did not have significantly different effects from the female actor regarding quality of performance [F (1, 274) = .07, ns] or quantity of performance [F (1, 274) = .37, ns]. For the 13 attitudinal variables examined below, none of the effects for actor reached statistical significance. So, although there was a significant difference on the enthusiasm manipulation check, this did not appear to impact on any dependent variables.

The subjects' perceptions of the actor's behavior was not significantly related to the interaction of the subjects' gender with the actor's gender. For the vision manipulation check items, F (1, 274) = .73, (ns), for the task strategy manipulation check items, F (1, 275) = 3.0 (ns), and for the enthusiasm manipulation check items, F (1, 274) = .67 (ns). Based on these factors, all analyses conducted were based on combining measures across the two actors.

Measures Across Trials

Performance was measured for each trial to test for differential learning by condition. Repeated measures analysis of variance tables for quality and quantity of

performance are shown in Table 2. For quality of performance, the mean and standard deviation for trial 1 and trial 2 errors respectively was 6.4 (6.03) and 5.4 (6.10). Table 2 shows that these means were significantly different [F (1, 271) = 7.16, $p<.01$], indicating a significant learning effect for all subjects. Subjects made fewer errors on trial 2 than trial 1, probably due to learning the task. There was also a significant four-way interaction between the three independent variables and trials [F (1, 271) = 4.80, $p<.05$]. An examination of the means revealed no interpretable pattern of effects. Due to the fact that this interaction is not crucial to the main focus of this dissertation and the fact that 4-way interactions are extremely difficult to interpret, an in-depth analysis of this interaction was not conducted.

For quantity of performance, Table 2 shows that only the task strategy by trials interaction was significant [F (1, 271) = 4.13, $p<.05$]. The means plotted in Figure 3 indicate that the task strategy conditions improved across trials while the no task strategy group did not improve at all.

In general, all subjects had fewer errors as they went through the experiment regardless of condition while the number of pages remained constant, with the exception of the task strategy group. There was little support for

Table 2

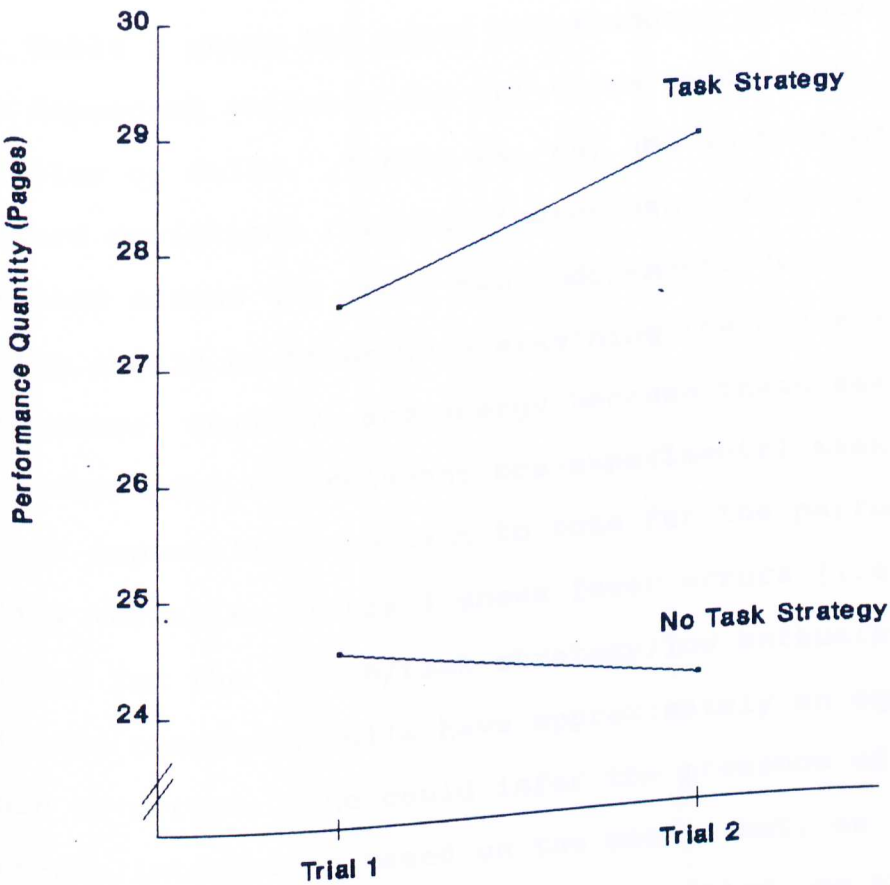
Repeated Measures Across Trials

Dependent Variable	Source		df	MS	F
Performance Quality	Within Cells		271	17.84	
	Trials	(T)	1	127.72	7.16**
	Vision	(A) x T	1	3.28	.18
	Task Strategy	(B) x T	1	12.13	.68
	Enthusiasm	(C) x T	1	3.23	.18
	A x B x T		1	46.53	2.61
	A x C x T		1	2.66	.15
	B x C x T		1	6.55	.37
	A x B x C x T		1	85.72	4.80*
Performance Quantity	Within Cells		271	24.60	
	Trials	(T)	1	26.85	1.09
	Vision	(A) x T	1	2.09	.08
	Task Strategy	(B) x T	1	101.59	4.13*
	Enthusiasm	(C) x T	1	1.12	.05
	A x B x T		1	52.71	2.14
	A x C x T		1	4.32	.18
	B x C x T		1	30.38	1.23
	A x B x C x T		1	58.73	2.39

* $p<.05$, ** $p<.01$

Figure 3

Trials by Task Strategy Interaction



the proposition that differential learning occurred across trials. Thus, for data analysis purposes, performance quality and performance quantity variables were each combined across trials.

Descriptive Statistics and Correlations

Table 3 shows the means and standard deviations of each dependent variable for the three independent variables or cells. Tables 4a, 4b, and 4c show means and standard deviations for each independent variable collapsed across the other two independent variables. Caution should be taken when examining the means for performance, anxiety, and energy because these means do not control for the relevant pre-experimental measures. This is especially important to note for the performance quality variable. Table 3 shows fewer errors (i.e. higher quality) for the vision/task strategy/low enthusiasm cell while the remaining cells have approximately an equal number of errors. One could infer the presence of a three-way interaction based on the means, but, as shown below in Table 6, once ability is controlled, no three-way interaction is significant. Although ability was not significantly correlated with any of the independent variables (Table 5), there was slightly higher ability for the vision/task strategy/low enthusiasm cell.

Table 3

Cell Means and Standard Deviations for Performance, Attitude, and Perception Variables[a]

		Means (standard deviations)			
		No Vision		Vision	
Dependent Measure	Enthusiasm Condition	No TS[b]	TS[b]	No TS	TS
Performance Quality	Low	15.4 (11.1)	13.7 (13.4)	13.0 (9.6)	5.3 (4.8)
	High	10.5 (8.5)	11.8 (10.9)	12.8 (13.1)	10.4 (8.7)
Performance Quantity	Low	48.4 (15.9)	59.7 (17.2)	48.7 (14.4)	58.0 (13.8)
	High	48.2 (11.9)	54.9 (15.8)	49.0 (18.0)	53.0 (15.5)
Anxiety (Post)	Low	2.7 (.5)	2.9 (.9)	2.7 (.7)	2.3 (.7)
	High	2.5 (.7)	2.4 (.6)	2.7 (.8)	2.5 (.6)

[a] Performance quality is the number errors and performance quantity is the number of pages. Anxiety and energy were measured using a 5-point scale. All other items were measured using a 7-point scale.

[b] No TS = No task strategy; TS = Task strategy

(Table 3, cont.)

Energy	Low	4.0	3.9	3.8	3.9
(Post)		(.5)	(.4)	(.5)	(.5)
	High	3.9	3.8	3.9	3.9
		(.5)	(.4)	(.5)	(.5)
Task	Low	3.8	4.0	4.0	4.9
Satisfaction		(1.6)	(1.7)	(1.3)	(1.4)
	High	3.8	4.3	3.8	4.3
		(1.5)	(1.6)	(1.4)	(1.5)
Enthusiasm	Low	3.4	3.2	3.7	3.7
For Task		(1.3)	(1.4)	(1.2)	(1.4)
	High	3.3	3.4	3.4	3.7
		(1.4)	(1.5)	(1.4)	(1.2)
Enthusiasm	Low	4.2	3.9	4.5	4.5
For Vision		(1.4)	(1.3)	(1.0)	(1.3)
	High	4.4	4.4	4.4	4.7
		(1.2)	(1.2)	(.9)	(1.1)
Willingness	Low	3.4	3.6	3.8	3.9
to Work		(1.3)	(1.2)	(1.1)	(1.2)
	High	3.6	3.8	3.3	3.9
		(1.2)	(1.4)	(1.1)	(1.4)

(Table 3, cont.)

Congruence	Low	5.6	5.5	6.0	6.4
of Beliefs		(.7)	(1.0)	(.9)	(.6)
and Values	High	5.8	5.8	6.3	6.2
		(.7)	(.8)	(.7)	(.7)
Trust	Low	4.4	4.4	4.8	5.3
in Leader		(1.0)	(.7)	(1.2)	(.9)
	High	4.6	4.8	4.8	5.0
		(1.1)	(1.4)	(1.0)	(1.0)
Liking	Low	4.5	4.2	4.5	5.0
the Leader		(.9)	(.7)	(.9)	(.9)
	High	4.7	4.8	4.9	5.0
		(.8)	(1.0)	(.9)	(1.0)
Charisma	Low	3.4	3.8	4.5	4.8
(Form 8Y)		(1.3)	(.9)	(1.0)	(.8)
	High	3.8	4.1	4.9	4.9
		(1.1)	(.8)	(.9)	(1.0)
Intellectual	Low	2.9	3.6	3.8	4.5
Stimulation		(1.4)	(1.4)	(1.3)	(1.5)
	High	3.0	4.4	3.9	4.4
		(1.2)	(1.4)	(1.4)	(1.2)

(Table 3, cont.)

Inspiration	Low	2.7	3.0	3.7	4.0
		(1.5)	(1.2)	(1.2)	(1.3)
	High	2.9	3.3	4.0	3.9
		(1.5)	(1.3)	(1.3)	(1.3)
Task Clarity	Low	4.5	4.9	4.5	5.5
		(1.3)	(1.8)	(1.3)	(1.4)
	High	5.1	5.1	5.0	5.1
		(1.3)	(1.6)	(1.5)	(1.4)

Table 4a

Vision: Means and Standard Deviations for Performance, Attitude and Perception Variables[a]

Dependent Measure	Means (standard deviations)	
	No Vision	Vision
Performance Quality	12.9	10.5
	(11.1)	(9.9)
Performance Quantity	52.6	52.0
	(15.9)	(15.7)
Anxiety (Post)	2.6	2.5
	(.7)	(.7)
Energy (Post)	3.9	3.9
	(.5)	(.5)
Task Satisfaction	4.0	4.3
	(1.6)	(1.4)
Enthusiasm for Task	3.3	3.6
	(1.4)	(1.3)

[a] Performance quality is the number errors and performance quantity is the number of pages. Anxiety and energy were measured using a 5-point scale. All other items were measured using a 7-point scale.

(Table 4a, cont.)

Enthusiasm for Vision	4.2	4.5
	(1.3)	(1.1)
Willingness to Work	3.6	3.7
	(1.3)	(1.2)
Congruence in Beliefs and Values	5.7	6.2
	(.8)	(.7)
Trust in Leader	4.5	4.9
	(1.1)	(1.0)
Liking Leader	4.6	4.8
	(.9)	(1.0)
Charisma (Form 8Y)	3.7	4.8
	(1.1)	(1.0)
Intellectual Stimulation	3.5	4.2
	(1.5)	(1.4)
Inspiration	2.9	3.9
	(1.4)	(1.2)
Task Clarity	4.9	5.0
	(1.5)	(1.4)

Table 4b

Task Strategy: Means and Standard Deviations for Performance, Attitude and Perception Variables[a]

Dependent Measure	Means (standard deviations) No Task Strategy	Task Strategy
Performance Quality	13.0	10.4
	(10.6)	(10.3)
Performance Quantity	48.6	56.2
	(15.0)	(15.7)
Anxiety (Post)	2.6	2.5
	(.7)	(.7)
Energy (Post)	3.9	3.9
	(.5)	(.5)
Task Satisfaction	3.9	4.4
	(1.4)	(1.6)

[a] Performance quality is the number errors and performance quantity is the number of pages. Anxiety and energy were measured using a 5-point scale. All other items were measured using a 7-point scale.

(Table 4b, cont.)

Enthusiasm for Task	3.5	3.5
	(1.3)	(1.4)
Enthusiasm for Vision	4.4	4.4
	(1.2)	(1.2)
Willingness to Work	3.5	3.8
	(1.2)	(1.3)
Congruence in Beliefs and Values	5.9	6.0
	(.8)	(.8)
Trust in Leader	4.6	4.9
	(1.1)	(1.0)
Liking Leader	4.6	4.7
	(.9)	(1.0)
Charisma (Form 8Y)	4.1	4.4
	(1.3)	(1.0)
Intellectual Stimulation	3.4	4.2
	(1.4)	(1.4)
Inspiration	3.3	3.5
	(1.5)	(1.3)
Task Clarity	4.8	5.1
	(1.4)	(1.5)

Table 4c

Enthusiasm: Means and Standard Deviations for Performance, Attitude and Perception Variables[a]

Dependent Measure	Means (standard deviations) Low Enthusiasm	High Enthusiasm
Performance Quality	12.2	11.3
	(10.9)	(10.3)
Performance Quantity	53.2	51.4
	(16.1)	(15.5)
Anxiety (Post)	2.6	2.5
	(.7)	(.7)
Energy (Post)	3.9	3.9
	(.5)	(.5)
Task Satisfaction	4.2	4.1
	(1.6)	(1.5)

[a] Performance quality is the number errors and performance quantity is the number of pages. Anxiety and energy were measured using a 5-point scale. All other items were measured using a 7-point scale.

(Table 4c, cont.)

Enthusiasm for Task	3.5	3.5
	(1.3)	(1.4)
Enthusiasm for Vision	4.3	4.5
	(1.3)	(1.1)
Willingness to Work	3.7	3.6
	(1.2)	(1.3)
Congruence in Beliefs and Values	5.9	6.0
	(.9)	(.7)
Trust in Leader	4.7	4.8
	(1.0)	(1.1)
Liking Leader	4.5	4.9
	(.9)	(.9)
Charisma (Form 8Y)	4.1	4.4
	(1.2)	(1.1)
Intellectual Stimulation	3.7	4.0
	(1.5)	(1.4)
Inspiration	3.3	3.5
	(1.4)	(1.3)
Task Clarity	4.8	5.1
	(1.5)	(1.4)

Table 5 shows the correlations among the independent variables, performance variables, and attitude and perception variables.

Effects of Independent Variables

The propositions presented in chapter 4 regarding the effects of the independent variables were tested via analysis of variance. When the dependent variable was performance, ability (practice trial performance) was used as a covariate (Cochran & Cox, 1957). Also, when testing the effects of mood, the pre-experimental measures of mood was used as a covariate and the post-experimental measures of mood were used as the dependent variable, thus testing the differences in mood after controlling for initial mood. The analysis of variance computations and the strength of the significant effects are presented in Table 6.

The Effects of Vision

Proposition 1 stated that a leader who communicated a vision would affect performance quality in a positive direction (i.e. fewer errors) compared to a leader who communicated no vision. As can be seen in Table 6, there was a significant vision effect. Examination of the means, in Table 4a, shows that fewer errors were made in

Table 5

Correlations Among Independent and Dependent Variables

	1.	2.	3.	4.	5.	6.	7.
1. Vision	--	.02	.04	.02	-.01	.11*	-.02
2. Task Strategy		--	.07	.02	-.06	.12*	.24**
3. Enthusiasm			--	-.05	.03	.04	-.06
4. Ability Quality				--	-.36**	.45**	.03
5. Ability Quantity					--	-.10*	.49**
6. Performance Quality						--	-.02
7. Performance Quantity							--
8. Anxiousness (Post)							
9. Energy (Post)							
10. Task Satisfaction							
11. Enthusiasm for Task							
12. Enthusiasm for Vision							
13. Willingness to Work							
14. Congruence							
15. Trust in Leader							
16. Liking the Leader							
17. Charisma (Form 8Y)							
18. Intellectual Stimulation							
19. Inspiration							
20. Task Clarity							

* $p<.05$, ** $p<.01$

(Table 5, cont.)

	8.	9.	10.	11.	12.	13.	14.	15.	16.
1.	-.06	.00	.09	.12*	.12*	.07	.33**	.19**	.15**
2.	-.08	-.03	.16**	.03	.00	.12*	.04	.11*	.05
3.	-.06	-.08	-.02	-.01	.09	-.01	.09	.07	.18**
4.	-.13*	.18**	.17**	.12*	.05	.06	.08	.09	.09
5.	.03	-.01	.13*	-.01	.01	-.02	-.10*	.02	-.02
6.	-.34**	.03	.37**	.10*	.18**	.02	.08	.15**	.14*
7.	-.05	.09	.24**	.06	.07	.08	-.03	.11*	.02
8.	--	-.11*	-.38**	-.14**	-.08	-.06	-.03	-.04	-.01
9.		--	-.10*	-.17**	-.17**	-.17**	-.02	-.07	-.05
10.			--	.47**	.47**	.31**	.12*	.25**	.14**
11.				--	.72**	.50**	.14*	.29**	.13*
12.					--	.44**	.21**	.37**	.23**
13.						--	.20**	.40**	.31**
14.							--	.38**	.36**
15.								--	.60**
16.									--
17.									
18.									
19.									
20.									

(Table 5, cont.)

	17.	18.	19.	20.
1.	.45**	.24**	.35**	.04
2.	.12*	.28**	.09	.13*
3.	.16**	.10*	.09	.09
4.	-.04	-.10*	-.01	.26**
5.	.08	-.03	.04	.22**
6.	.06	.00	.10*	.38**
7.	.07	.06	.11*	.32**
8.	-.02	-.04	.04	-.25**
9.	-.16**	-.09	-.13*	.09
10.	.27**	.21**	.30**	.35**
11.	.33**	.29**	.33**	.15**
12.	.39**	.33**	.41**	.15**
13.	.41**	.40**	.38**	.09
14.	.41**	.30**	.29**	.11*
15.	.58**	.34**	.40**	.22**
16.	.54**	.32**	.33**	.18**
17.	--	.55**	.68**	.15**
18.		--	.62**	.04
19.			--	.10*
20.				--

Table 6

Analysis of (Co-)Variance Results[a]

Dependent Variable	Source		df	MS	F	ω^2
Performance Quality	Ability		1	6360.5	73.1**	.20
	Vision	(A)	1	297.8	3.4+	.01
	Task Strategy	(B)	1	350.1	4.0*	.01
	Enthusiasm	(C)	1	80.5	.9	
	A x B		1	154.4	1.8	
	A x C		1	118.4	1.4	
	B x C		1	205.5	2.4	
	A x B x C		1	30.0	.3	
	Residual		269	87.1		

+ $p<.10$, * $p<.05$, ** $p<.01$

[a] Sample size varies slightly across the analyses due to missing data. Omega-squared (ω^2) is presented only for significant F values.

(Table 6, cont.)

Performance	Ability		1	16148.0	93.5**	.23
Quantity	Vision	(A)	1	12.0	.1	
	Task Strategy	(B)	1	4932.5	28.1**	.07
	Enthusiasm	(C)	1	493.1	2.8	
	A x B		1	13.9	.1	
	A x C		1	216.3	1.2	
	B x C		1	62.8	.4	
	A x B x C		1	26.4	.2	
	Residual		270	175.6		
Anxiety	Anxiety (Pre)		1	53.3	169.1**	.37
(Post)	Vision	(A)	1	.4	1.2	
	Task Strategy	(B)	1	.1	.2	
	Enthusiasm	(C)	1	.2	.5	
	A x B		1	1.2	3.9*	.01
	A x C		1	1.6	5.0*	.01
	B x C		1	.2	.7	
	A x B x C		1	.7	2.1	
	Residual		270	.3		

(Table 6, cont.)

Energy (Post)	Energy (Pre)		1	27.4	228.0**	.46
	Vision	(A)	1	.0	.4	
	Task Strategy	(B)	1	.0	.1	
	Enthusiasm	(C)	1	.0	.2	
	A x B		1	.0	.7	
	A x C		1	.0	.4	
	B x C		1	.0	.6	
	A x B x C		1	.0	.1	
	Residual		265	.1		
Task Satis-faction	Vision	(A)	1	5.4	2.4	
	Task Strategy	(B)	1	16.2	7.2**	.02
	Enthusiasm	(C)	1	.9	.4	
	A x B		1	2.3	1.0	
	A x C		1	4.7	2.1	
	B x C		1	.1	.0	
	A x B x C		1	1.8	.8	
	Residual		272	2.3		

(Table 6, cont.)

Enthusiasm for Task	Vision	(A)	1	6.7	3.8*	.01
	Task Strategy	(B)	1	.3	.2	
	Enthusiasm	(C)	1	.1	.1	
	A x B		1	.7	.4	
	A x C		1	.5	.3	
	B x C		1	1.8	1.0	
	A x B x C		1	.0	.0	
	Residual		272	1.8		
Enthusiasm for Vision	Vision	(A)	1	5.7	4.0*	.01
	Task Strategy	(B)	1	.0	.0	
	Enthusiasm	(C)	1	3.2	2.2	
	A x B		1	1.5	1.1	
	A x C		1	1.8	1.2	
	B x C		1	.8	.6	
	A x B x C		1	.0	.0	
	Residual		273	1.4		

(Table 6, cont.)

Willingness	Vision	(A)	1	1.9	1.2	
To Work	Task Strategy	(B)	1	6.4	4.1*	.01
	Enthusiasm	(C)	1	.2	.2	
	A x B		1	.2	.1	
	A x C		1	3.9	2.5	
	B x C		1	.8	.5	
	A x B x C		1	1.3	.9	
	Residual		273	1.6		
Congruence	Vision	(A)	1	20.3	34.3**	.11
of Beliefs	Task Strategy	(B)	1	.1	.2	
and Values	Enthusiasm	(C)	1	1.0	1.7	
	A x B		1	.5	.7	
	A x C		1	1.1	1.9	
	B x C		1	.5	.8	
	A x B x C		1	1.7	2.9	
	Residual		272	.6		

(Table 6, cont.)

Trust in Leader	Vision	(A)	1	10.8	10.0**	.03
	Task Strategy	(B)	1	3.3	3.1	
	Enthusiasm	(C)	1	.8	.7	
	A x B		1	1.0	1.0	
	A x C		1	3.3	3.0	
	B x C		1	.0	.0	
	A x B x C		1	1.4	1.3	
	Residual		272	1.1		
Liking the Leader	Vision	(A)	1	4.9	6.1*	.02
	Task Strategy	(B)	1	.3	.4	
	Enthusiasm	(C)	1	7.2	8.8**	.03
	A x B		1	2.9	3.6	
	A x C		1	1.0	1.2	
	B x C		1	.0	.0	
	A x B x C		1	3.5	4.2*	.01
	Residual		272	.8		

(Table 6, cont.)

Charisma	Vision	(A)	1	70.4	69.2**	.19
(Form 8Y)	Task Strategy	(B)	1	3.5	3.4	
	Enthusiasm	(C)	1	6.3	6.2*	.02
	A x B		1	.7	.7	
	A x C		1	.6	.6	
	B x C		1	1.1	1.1	
	A x B x C		1	.2	.2	
	Residual		269	1.0		
Intellectual	Vision	(A)	1	31.9	17.4**	.05
Stimulation	Task Strategy	(B)	1	44.4	24.3**	.07
	Enthusiasm	(C)	1	3.0	1.6	
	A x B		1	2.9	1.6	
	A x C		1	3.3	1.8	
	B x C		1	1.0	.5	
	A x B x C		1	4.2	2.3	
	Residual		273	1.8		

(Table 6, cont.)

Inspiration	Vision	(A)	1	62.8	38.1**	.12
	Task Strategy	(B)	1	3.3	2.0	
	Enthusiasm	(C)	1	2.2	1.3	
	A x B		1	.6	.4	
	A x C		1	.4	.2	
	B x C		1	.5	.3	
	A x B x C		1	1.3	.8	
	Residual		273	1.6		
Task Clarity	Vision	(A)	1	.7	.3	
	Task Strategy	(B)	1	9.3	4.4*	.01
	Enthusiasm	(C)	1	3.6	1.7	
	A x B		1	2.9	1.4	
	A x C		1	1.7	.8	
	B x C		1	5.8	2.7	
	A x B x C		1	1.2	.6	
	Residual		273	2.1		

the vision condition than in the no vision conditions, supporting proposition 1.

Although this effect was only significant at the $p<.10$ level when controlling for ability, this is solely the result of a degrees of freedom effect. The vision-performance quality correlation was significant at the .05 level (as shown in Table 5) but the vision-ability correlation was virtually zero ($r=.02$, ns). This was confirmed by computing a partial correlation coefficient where the effect of ability was removed from the vision-performance quality relationship. The partial correlation was $r=-.11$ ($p<.05$) which is the same as the first-order correlation between vision and performance quality.

As stated above, examination of the performance quality means in Table 3 indicates a possible three-way interaction. However, this effect was not significant in the analysis of variance when controlling for ability.

Proposition 2 concerned the effects of vision on the attitudes and perceptions of the subjects toward the task and leader. As can be seen in Table 6, 8 of the 13 attitude and perception variables were significantly affected by the vision variable. Examining the means shows that vision, compared to no vision, led to significantly (a) more enthusiasm for the task, (b) more enthusiasm for the vision, (c) more perceived congruence

between the leader's and subjects' beliefs and values, (d) more trust in the leader, (e) more of liking the leader, (f) greater perception of the leader as charismatic, (g) more intellectual stimulation, and (h) more inspiration. There were no significant effects of vision on anxiety, energy, task satisfaction, willingness to work for the leader, or task clarity. Overall, proposition 2 was supported.

To sum up, the leader's vision had an impact on the subjects' performance quality; subjects in the vision condition made significantly fewer errors than those who heard the leader give factual information. Subjects who were exposed to the visionary leader had more positive attitudes and perceptions toward the leader than those who saw the nonvisionary leader. Subjects who heard the vision seemed to "buy into" the leader's ideas, as indicated by the significant effects on congruence, trust, liking, and charisma. The significant effects on enthusiasm for the task and enthusiasm for the vision indicates that the vision seemed to excite the subjects, although it did not make a difference in subjects' willingness to work for the leader in the future. Finally, the vision led the subjects to think about new ways to perform the task and inspired them to do a good

job, as shown by the significant effects on intellectual stimulation and on inspiration.

The Effects of Task Strategy

Proposition 3 concerned the effects of task strategy on performance quality and quantity. Subjects in the task strategy condition had significantly fewer errors and inserted significantly more pages than those not receiving any task strategy information (see Table 6). Thus, proposition 3 was supported.

Although no specific propositions were made regarding the effects of task strategy on attitudes and perceptions, four additional significant effects were found. The task strategy information positively affected subjects' feelings of task satisfaction, willingness to work for the leader, intellectual stimulation, and task clarity.

The Interaction of Vision and Task Strategy

Proposition 4 concerned the vision by task strategy interaction on attitudes and perceptions. This interaction significantly affected subjects' anxiety, while having no significant effects on the other 13 dependent variables. Figure 4 shows equal levels of anxiety when no task strategy was given, when no vision was given, or when neither were given, but anxiety was reduced when both a vision and task strategy were given.

In general, there was little support for this proposition.

The Effects of Enthusiasm

Proposition 5 concerned the effects of enthusiasm on the attitude and perception measures. Table 6 shows only 2 of the 13 effects for enthusiasm reached statistical significance. A high enthusiasm leader was liked more and was regarded as being more charismatic than a low enthusiasm leader. The process used by the leader did not affect subjects' anxiety, energy, task satisfaction, enthusiasm for the task or vision, willingness to work in the future, congruence of beliefs and values, trust in the leader, intellectual stimulation, inspiration, or task clarity.

In addition, it can be seen that enthusiasm had no significant effects on performance quality or quantity. In general, proposition 5 was not supported.

The Interaction of Vision and Enthusiasm

Proposition 6 was concerned with the effects of the vision by enthusiasm interaction on attitudes and perceptions. As shown in Table 6, only 1 of the 13 attitude and perception variables showed this interaction. Vision and enthusiasm interacted to affect anxiety. Figure 5 shows that while subjects in the high enthusiasm condition had similar levels of anxiety regardless of vision condition, the combination of low enthusiasm/no

vision resulted in more anxiety than low enthusiasm/vision. It may be that the presence of either high enthusiasm, vision, or both serve to reduce one's anxiety while low enthusiasm plus no vision increase anxiety. In general, this proposition was not supported.

Summary

Overall, vision significantly affected performance quality as well as most attitudes and perceptions toward the leader. Task strategy significantly affected performance quality and quantity as well as intellectual stimulation. Enthusiasm only affected a few attitudes and perceptions. The interactions between the independent variables did not significantly affect performance, attitudes, or perceptions.

Figure 4

Vision by Task Strategy Interaction on Anxiety

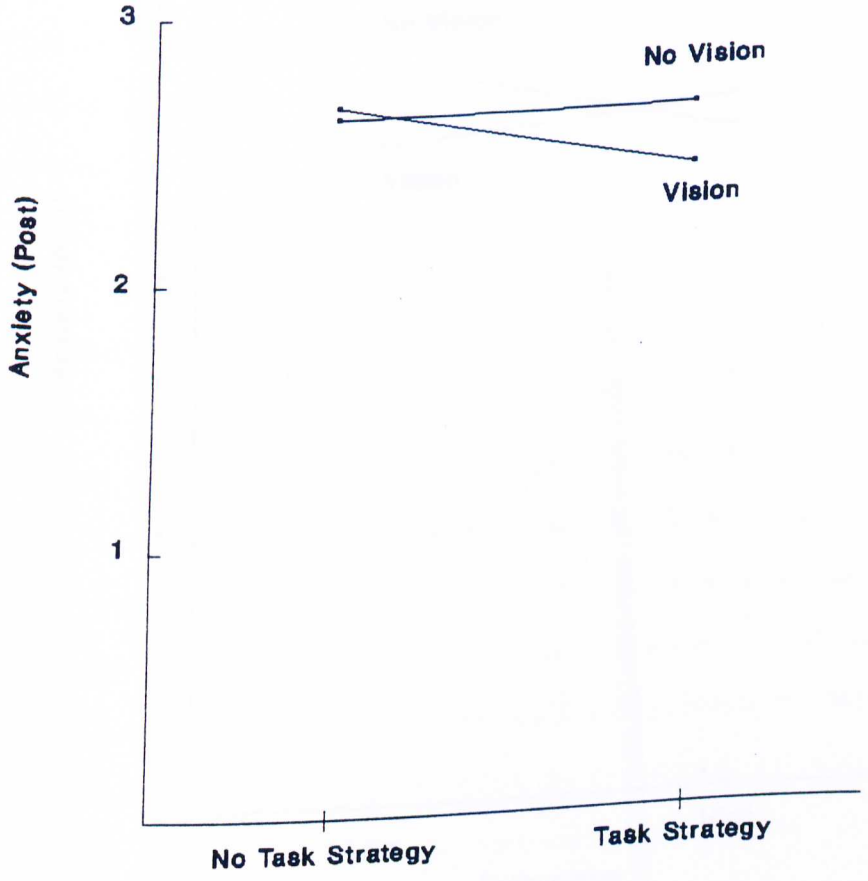
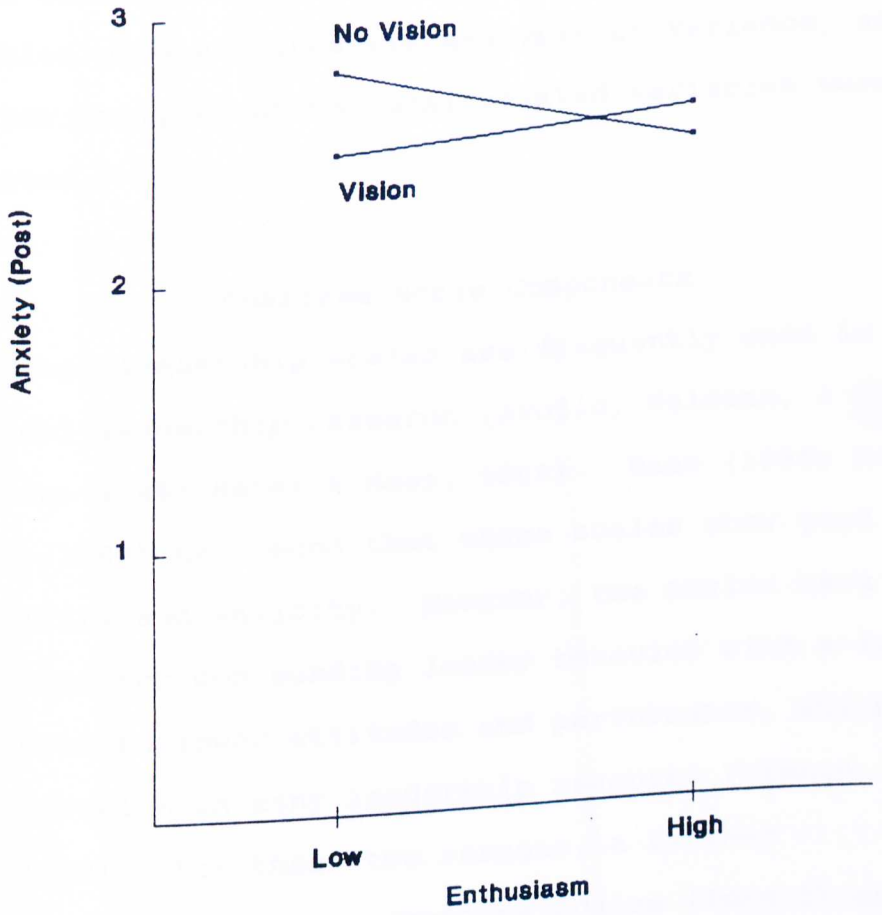


Figure 5

Vision by Enthusiasm Interaction on Anxiety



Chapter 7

Results: Supplementary and Mediator Analyses

To further explore the relationships of the experiment, a supplementary analyses on the two charisma scales was conducted. Also, the effects of the goal variables were examined via analysis of variance, and the mediator analyses of the goal-related variables were conducted.

Charisma Scale Components

Bass' leadership scales are frequently used in empirical leadership research (Avolio, Waldman, & Einstein, 1988; Hater & Bass, 1988). Bass (1985; Bass & Avolio, 1989) has found that these scales show good reliability and validity. However, the scales have been criticized for confounding leader behavior with a leader's effects on follower attitudes and performance, which is a common problem in many leadership measures (Uleman, 1991; Yukl, 1989). For these two reasons, a further investigation of the two charisma scales (Form 8Y and Form 5) was undertaken. Using the charisma items from both scales, a principal components analysis with varimax rotation resulted in two meaningful components. It should

be noted that many of the factor loadings load highly on both factors.

The components are not process and content components, but seem to reflect (a) the subordinate's (or rater's) perception of leader behavior and (b) followers' attitudes toward the leader. Table 7 shows the results of the principal components analysis. Thus, if one conceptualizes that leader actions influence subordinates' attitudes about the leader, then the criticism that Bass' charisma scale confounds these two steps is warranted. However, one must also consider the fact that charismatic leadership defined broadly does include both leader behaviors (e.g. communicating a vision) as well as the subordinate's attitudes regarding the leader (e.g. whether the subordinate likes the leader). Clearly, future researchers will need to consider the purpose of their study when deciding whether to use Bass' measure or not.

The effects of the independent variables on each component was tested via analysis of variance by forming two new scales, a leader behavior scale and an attitude toward the leader scale. There were significant main effects of vision and of enthusiasm on the leader behavior scale and on the attitude toward the leader scale. These effects were similar to the effects on the charisma (Form 8Y) scale shown in Table 6. The two components that

Table 7

Principal Components Analysis of Charisma Scales[a,b]

Item (Form)	Leader Behavior	Attitude About Leader
The CEO served as a role model for me. (8Y)	.46	.31
The CEO mobilized a collective sense of mission. (8Y)	.80	.21
The CEO instilled pride in being associated with him. (8Y)	.72	.36
The CEO engaged in words and deeds which enhanced his image of competence. (8Y)	.73	.32

[a] Items are worded as they appeared on the form for the male actor. For the female actor, the term President instead of CEO was used, and feminine, instead of masculine, pronouns were used.

[b] Form 8Y items are taken from Bass (1985). Form 5R items are copyrighted by B. Bass and B. Avolio. The survey from which the items are taken is licensed by Consulting Psychologists Press (CPP), Inc. and any reproduction or use of the survey and/or items must be approved by CPP.

(Table 7, cont.)

The CEO made me aware of strongly held values, ideals, and aspirations which are shared in common. (8Y)	.81	.20
The CEO demonstrated a strong conviction in his beliefs and values. (8Y)	.78	.25
The CEO projected a strong, dynamic, and magnetic presence. (8Y)	.65	.45
I am ready to trust the CEO to overcome any obstacles. (8Y)	.54	.52
I have complete confidence in the CEO (5R).	.76	.30
In my mind, the CEO is a symbol of success and accomplishment. (5R)	.53	.49
The CEO makes me feel good when I'm around him. (8Y)	.47	.66
The CEO makes me proud to be associated with him. (8Y)	.47	.63
The CEO is someone in whom I have complete faith. (8Y)	.49	.57
The CEO has a special gift for seeing what is really worthwhile for me to consider. (5R)	.19	.79
The CEO has my respect. (5R)	.23	.82

(Table 7, cont.)

The CEO shows enthusiasm for what I need to do. (5R)	.17	.83
The CEO has a sense of mission which he communicated to me. (5R)	.33	.73
The CEO increases my optimism for the future. (5R)	.45	.61
The CEO has my trust in his ability to overcome any obstacle. (5R)	.50	.70

emerged did not have different effects than the Form 8Y scale. Thus, no further analysis were conducted using the separate components.

Goal Variable Results

Descriptive Statistics and Correlations

The means and standard deviations for goal scales are shown in Table 8, 9a, 9b, and 9c. Correlations among the goal scales are shown in Table 10. Correlations between goal scales and the independent variables and performance variables are presented in Table 11.

Analysis of Co-variance Results

Using analysis of co-variance, the effects of independent variables on each goal measure were examined and are shown in Table 12.

Vision significantly affected personal goals for quality, goal commitment for quality, and self-efficacy for quality and quantity. The means in Table 9a show that when the leader communicated a vision, subjects set more difficult goals (i.e. tried for fewer errors), were more committed to those quality goals, and had higher self-efficacy than when the leader communicated no vision. Because the vision stressed quality, it is logical that goals and self-efficacy for quality were mainly affected.

Table 8

Cell Means and Standard Deviations for Goal Scales[a]

Means

(and standard deviations)

Dependent Measure	Enthusiasm Condition	No Vision		Vision	
		No TS[b]	TS[b]	No TS	TS
Quality Goal	Low	14.3 (8.7)	12.6 (8.0)	8.9 (5.6)	5.1 (5.4)
	High	9.9 (6.0)	9.5 (4.8)	8.9 (7.8)	10.1 (7.4)
Quantity Goal	Low	41.1 (14.2)	49.8 (19.0)	44.8 (14.7)	51.9 (15.7)
	High	45.3 (16.1)	47.2 (13.1)	44.9 (13.7)	44.4 (11.7)
Anticipated Satisfaction for Quality	Low	52.4 (14.9)	51.8 (14.3)	49.6 (10.7)	41.4 (12.5)
	High	47.9 (10.8)	46.6 (10.0)	50.1 (11.4)	49.2 (49.2)

[a] Quality goal is the number of errors and quantity goal is the number of pages. Anticipated satisfaction for quality and quantity has a possible range from 11 to 99; goal commitment was measured using a 7-point scale; quality and quantity self-efficacy are mean z-scores.

[b] No TS = No task strategy; TS = Task strategy

(Table 8, cont.)

Anticipated	Low	65.6	58.1	60.1	59.7
Satisfaction		(11.0)	(9.5)	(9.8)	(11.4)
for Quantity	High	61.8	58.2	60.6	61.6
		(7.9)	(10.8)	(9.7)	(9.6)
Goal	Low	4.6	4.6	4.8	5.2
Commitment		(.9)	(1.1)	(.9)	(.9)
for Quality	High	4.8	4.5	4.8	4.8
		(.9)	(1.1)	(1.1)	(.8)
Goal	Low	4.7	4.6	4.9	5.2
Commitment		(.9)	(1.2)	(1.0)	(1.0)
for Quantity	High	4.9	4.8	4.8	4.8
		(.9)	(1.1)	(1.1)	(1.0)
Quality	Low	-.28	-.14	.03	.42
Self-Efficacy		(.75)	(.91)	(.73)	(.76)
	High	-.01	-.06	.18	.03
		(.75)	(.72)	(.83)	(.82)
Quantity	Low	-.33	.04	.08	.34
Self-Efficacy		(.72)	(.86)	(.63)	(.78)
	High	-.11	.02	.11	-.04
		(.61)	(.65)	(.69)	(.56)

Table 9a

Vision: Means and Standard Deviations for Goal Variables[a]

Dependent Measure	Means (standard deviations)	
	No Vision	Vision
Quality Goal	11.7 (7.4)	8.4 (6.9)
Quantity Goal	45.7 (15.9)	46.2 (14.0)
Anticipated Satisfaction for Quality	49.8 (12.9)	47.8 (13.6)
Anticipated Satisfaction for Quantity	61.1 (10.4)	60.5 (10.0)

[a] Quality goal is the number of errors and quantity goal is the number of pages. Anticipated satisfaction for quality and quantity has a possible range from 11 to 99; goal commitment was measured using a 7-point scale; quality and quantity self-efficacy are mean z-scores.

(Table 9a, cont.)

Goal Commitment for Quality	4.6 (1.0)	4.9 (.9)
Goal Commitment for Quantity	4.7 (1.0)	4.9 (1.0)
Quality Self-efficacy	-.13 (.8)	.15 (.8)
Quantity Self-efficacy	-.10 (.7)	.11 (.7)

Table 9b

Task Strategy: Means and Standard Deviations for Goal Variables[a]

Dependent Measure	Means (standard deviations) No Task Strategy	Task Strategy
Quality Goal	10.6 (7.5)	9.4 (7.0)
Quantity Goal	44.9 (14.6)	48.0 (15.1)
Anticipated Satisfaction for Quality	50.1 (12.2)	47.5 (14.2)
Anticipated Satisfaction for Quantity	62.1 (9.9)	59.5 (10.3)

[a] Quality goal is the number of errors and quantity goal is the number of pages. Anticipated satisfaction for quality and quantity has a possible range from 11 to 99; goal commitment was measured using a 7-point scale; quality and quantity self-efficacy are mean z-scores.

(Table 9b, cont.)

Goal Commitment for Quality	4.7 (1.0)	4.8 (1.0)
Goal Commitment for Quantity	4.8 (1.0)	4.8 (1.1)
Quality Self-efficacy	-.03 (.8)	.06 (.8)
Quantity Self-efficacy	-.06 (.7)	.08 (.7)

Table 9c

Enthusiasm: Means and Standard Deviations for Goal Variables[a]

Dependent Measure	Means (standard deviations) Low Enthusiasm	High Enthusiasm
Quality Goal	10.4 (7.9)	9.6 (6.6)
Quantity Goal	46.5 (16.3)	45.4 (13.5)
Anticipated Satisfaction for Quality	49.1 (13.8)	48.5 (12.8)
Anticipated Satisfaction for Quantity	61.1 (10.7)	60.5 (9.6)

[a] Quality goal is the number of errors and quantity goal is the number of pages. Anticipated satisfaction for quality and quantity has a possible range from 11 to 99; goal commitment was measured using a 7-point scale; quality and quantity self-efficacy are mean z-scores.

(Table 9c, cont.)

Goal Commitment for Quality	4.8 (1.0)	4.7 (1.0)
Goal Commitment for Quantity	4.9 (1.0)	4.8 (1.0)
Quality Self-efficacy	.00 (.8)	.04 (.8)
Quantity Self-efficacy	.03 (.8)	.00 (.7)

Table 10

Correlations Among Goal Variables

	1.	2.	3.	4.	5.	6.	7.	8.
1. Quality Goal	--	.03	-.52**	.00	.33**	-.24**	-.64**	-.07
2. Quantity Goal		--	-.07	-.57**	.17**	.25**	.18**	.76**
3. Anticipated Satisfaction for Quality			--	.26**	-.35**	.31**	-.56**	-.04
4. Anticipated Satisfaction for Quantity				--	-.02	-.03	-.05	-.61**
5. Goal Commitment for Quality					--	.81**	.40**	.15**
6. Goal Commitment for Quantity						--	.28**	.20**
7. Self-efficacy for Quality							--	.29**
8. Self-efficacy for Quantity								--

* $p<.05$, ** $p<.01$

Table 11

Correlations between Goal Variables and Independent and Performance Variables[a]

	V	TS	E	A-QL	A-QT	P-QL	P-QT
Goal for Quality	.22**	.08	.07	.28**	-.04	.43**	.03
Goal for Quantity	.02	.14*	-.04	-.07	.43**	-.06	.58**
Anticipated Satisfaction for Quality	-.08	-.10*	-.02	-.29**	.06	-.34**	-.05
Anticipated Satisfaction for Quantity	-.03	-.13*	-.02	-.05	-.24**	-.09	-.41**
Goal Commitment for Quality	.14**	.03	-.04	.15**	.05	.22**	.03
Goal Commitment for Quantity	.08	.01	-.03	.10*	.06	.12*	.05
Self-efficacy for Quality	.18**	.06	.03	.36**	.07	.51**	.15**
Self-efficacy for Quantity	.12*	.15**	-.04	-.08	.38**	-.06	.57**

* $p<.05$, ** $p<.01$

[a] V = Vision; TS = Task Strategy; E = Enthusiasm; A-QL = Ability Quality; A-QT = Ability Quantity; P-QL = Performance Quality; P-QT = Performance Quantity.

Table 12

Analysis of Co-variance Results for Goal Scales[a]

Dependent Variable	Source		df	MS	F	ω^2
Quality Goal	Ability		1	281.7	25.0**	.07
	Vision	(A)	1	160.9	14.3**	.04
	Task Strategy	(B)	1	15.1	1.3	
	Enthusiasm	(C)	1	10.9	1.0	
	A x B		1	1.3	.1	
	A x C		1	110.9	9.8**	.03
	B x C		1	37.7	3.3	
	A x B x C		1	16.4	1.5	
	Residual		268	11.3		

+ $p<.10$, * $p<.05$, ** $p<.01$

[a] Sample size varies slightly across the analyses due to missing data. Omega-squared (ω^2) is presented only for significant F values.

(Table 12, cont.)

Quantity Goal	Ability		1	2776.9	62.5**	.18
	Vision	(A)	1	5.6	.1	
	Task Strategy	(B)	1	363.0	8.2**	.02
	Enthusiasm	(C)	1	41.6	.9	
	A x B		1	.2	.0	
	A x C		1	220.6	5.0*	.01
	B x C		1	96.0	2.2	
	A x B x C		1	5.0	.1	
	Residual		265	44.4		
Anticipated Satisfaction for Quality	Ability		1	4129.3	26.0**	.08
	Vision	(A)	1	189.8	1.2	
	Task Strategy	(B)	1	354.3	2.2	
	Enthusiasm	(C)	1	33.3	.2	
	A x B		1	74.7	.5	
	A x C		1	792.9	5.0*	.01
	B x C		1	150.5	.9	
	A x B x C		1	317.3	2.0	
	Residual		266	158.7		

(Table 12, cont.)

Anticipated Satisfaction for Quantity	Ability		1	1637.0	17.3**	.05
	Vision	(A)	1	23.1	.2	
	Task Strategy	(B)	1	561.9	5.9*	.02
	Enthusiasm	(C)	1	.4	.0	
	A x B		1	399.4	4.2*	.01
	A x C		1	296.6	3.1	
	B x C		1	43.4	.5	
	A x B x C		1	13.8	.5	
	Residual		267	94.9		
Goal Commitment for Quality	Ability		1	5.9	6.4*	.02
	Vision	(A)	1	4.2	4.6*	.01
	Task Strategy	(B)	1	.2	.2	
	Enthusiasm	(C)	1	.5	.5	
	A x B		1	.9	1.0	
	A x C		1	.8	.8	
	B x C		1	1.8	1.9	
	A x B x C		1	.1	.1	
	Residual		265	.9		

(Table 12, cont.)

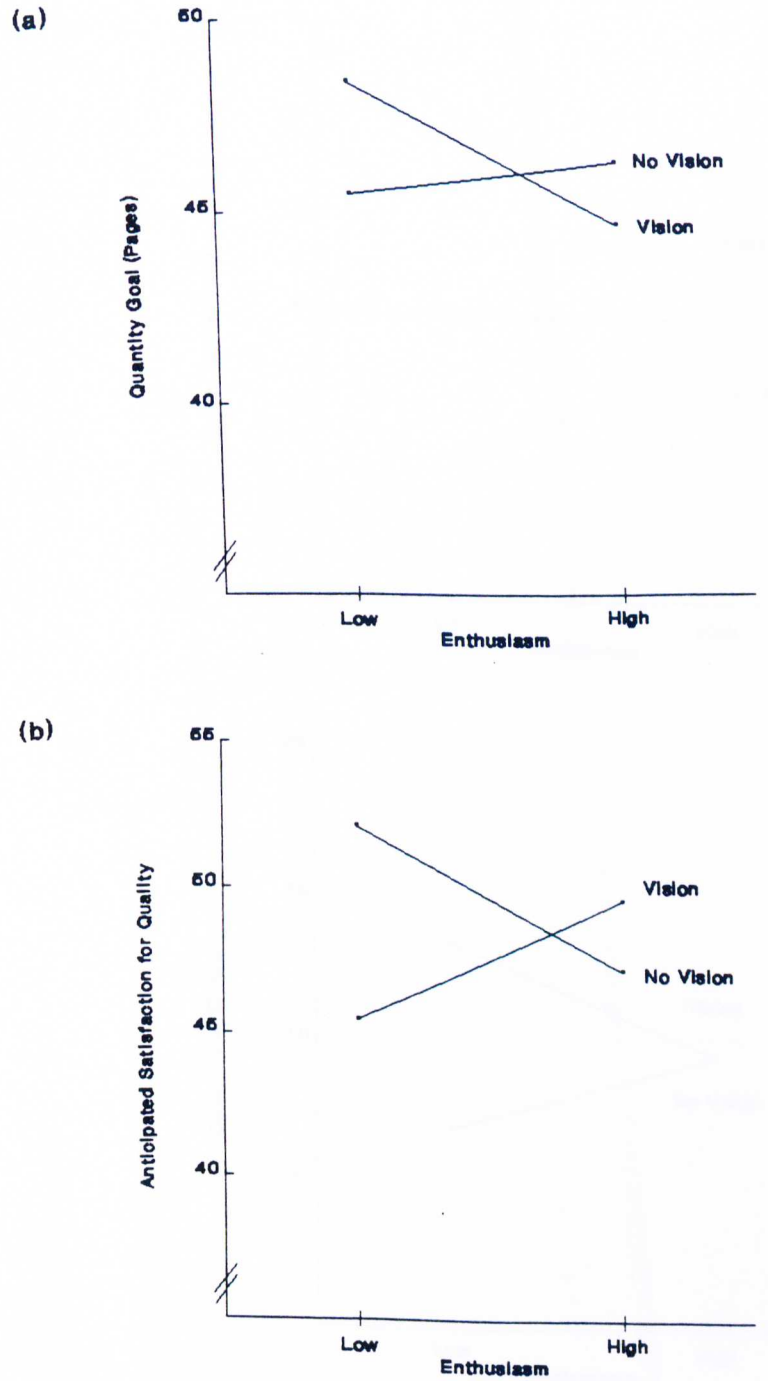
Goal	Ability		1	.9	.4	
Commitment	Vision	(A)	1	2.1	2.0	
for Quantity	Task Strategy	(B)	1	.0	.0	
	Enthusiasm	(C)	1	.4	.4	
	A x B		1	1.5	1.5	
	A x C		1	3.4	3.3	
	B x C		1	.1	.1	
	A x B x C		1	.4	.4	
	Residual		264	1.0		
Quality	Ability		1	21.2	38.9**	.12
Self-efficacy	Vision	(A)	1	4.8	8.8**	.03
	Task Strategy	(B)	1	.3	.6	
	Enthusiasm	(C)	1	.4	.7	
	A x B		1	.0	.0	
	A x C		1	.1	.2	
	B x C		1	1.8	3.3	
	A x B x C		1	.4	.6	
	Residual		251	.5		

(Table 12, cont.)

Quantity	Ability		1	13.4	32.0**	.10
Self-efficacy	Vision	(A)	1	3.1	7.4**	.02
	Task Strategy	(B)	1	2.0	4.9*	.01
	Enthusiasm	(C)	1	.3	.8	
	A x B		1	.1	.3	
	A x C		1	2.6	6.1*	.02
	B x C		1	.7	1.7	
	A x B x C		1	.3	.7	
	Residual		255	.4		

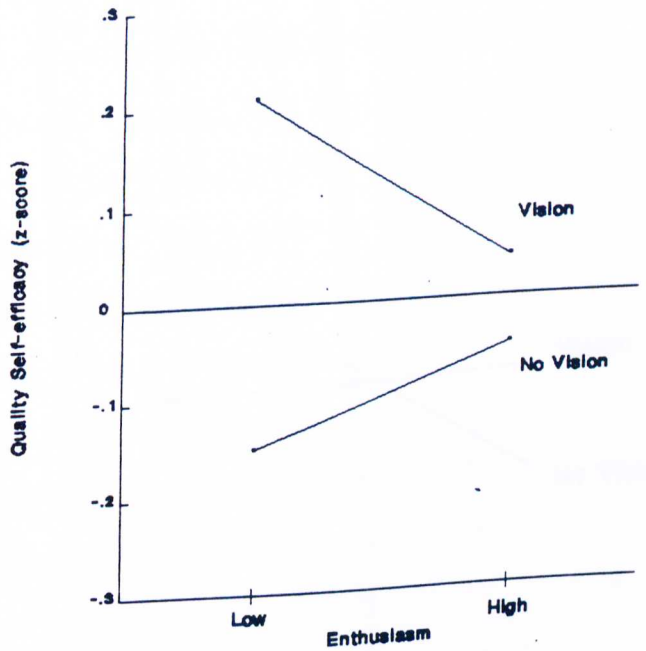
Figure 6

Vision by Enthusiasm Interaction on Goal Variables



(Figure 6, cont.)

(c)



(d)

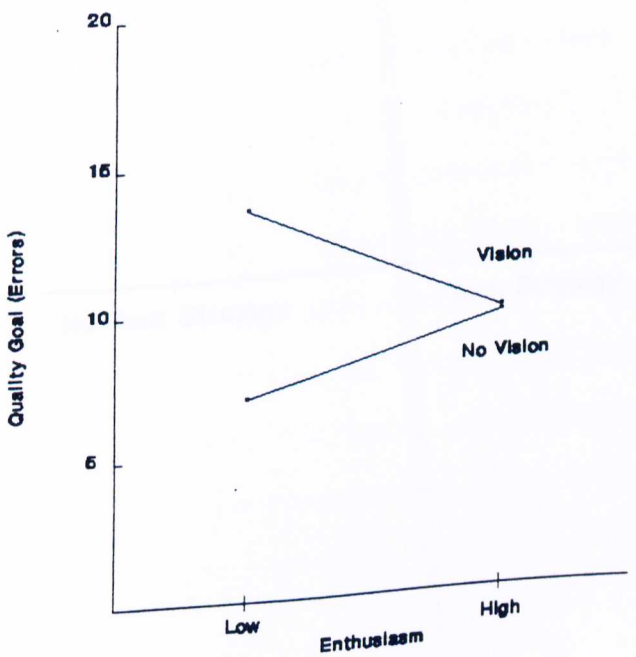
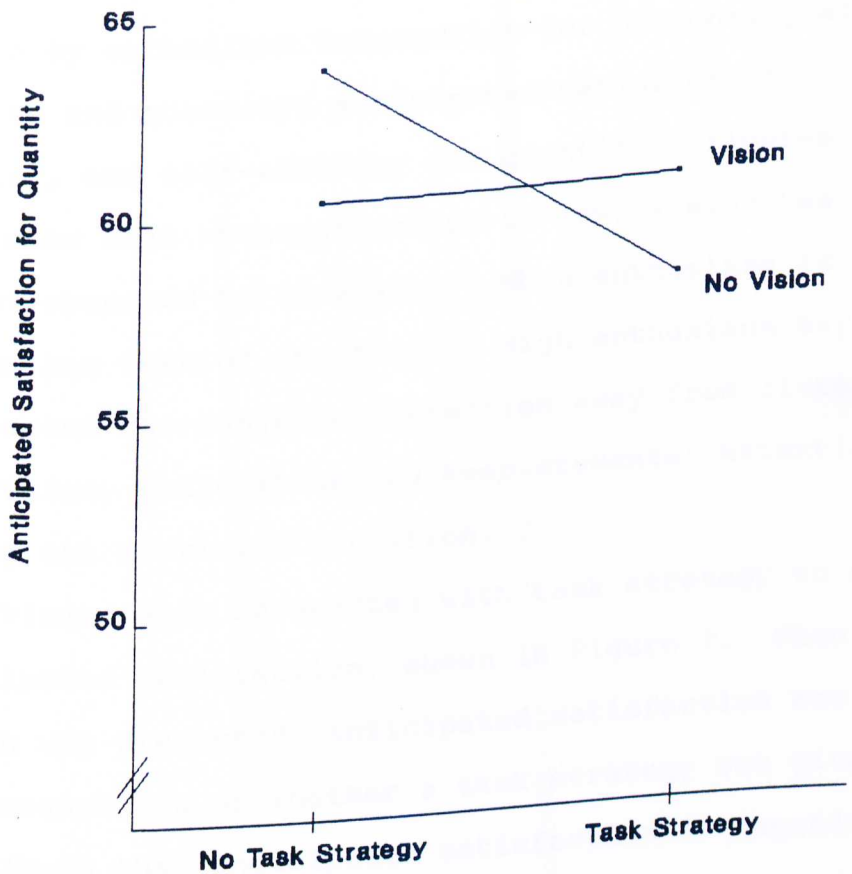


Figure 7

Vision by Task Strategy Interaction on Anticipated Satisfaction for Quantity



Task strategy significantly affected personal goals for quantity, anticipated satisfaction for quantity, and self-efficacy for quantity. The enthusiasm variable did not significantly affect any independent variable.

Unlike the attitude and perception variables where there were few interaction effects, there was a consistent vision by enthusiasm interaction for personal goal for quality and quantity, anticipated satisfaction for quality, and self-efficacy for quantity. Figures 6(a) - 6(d) show that when enthusiasm is low, vision has an effect compared to no vision. When enthusiasm is high, vision has less of an effect. High enthusiasm may have distracted the subjects' attention away from listening to the vision, while it helped keep students' attention during the no vision condition.

Vision also interacted with task strategy to affect anticipated satisfaction, shown in Figure 7. When a vision was presented, anticipated satisfaction was the same regardless of whether a task strategy was given or not. (Note that anticipated satisfaction is negatively related to goal level.) When no vision was communicated, the task strategy resulted in lower anticipated satisfaction (i.e. higher standards) than compared to no task strategy.

The independent variables did not show similar interactions on performance, indicating that the effects on goals and self-efficacy were not translated into similar effects on performance. Therefore, these interactions may not be practically significant.

In sum, leadership content, specifically the vision, influenced the subjects' goals and self-efficacy for quality. The task strategy variable influenced goals and self-efficacy for quantity. Enthusiasm only had an effect on goals, anticipated satisfaction, and self-efficacy in interaction with vision.

Mediation Results

Goals have been shown to be mediators between feedback and performance (Locke & Latham, 1990). Due to the consistent relationship between goals and performance that has been found in previous studies (Locke & Latham, 1990) and the relationship between the independent variables and goals in the analysis of co-variance results, goals were examined as mediators of the leadership - performance relationship. Because of the high intercorrelation between personal goals and anticipated satisfaction (r=-.52, p<.01, for quality and r=-.57, p<.01, for quantity) (Mento et al., 1991), the anticipated satisfaction scales were not examined as mediators. In addition, due to the lack of effect of

independent variables on the goal commitment for quantity scales, this scale was dropped from the analysis.

Baron and Kenny's (1986) criteria were used to test for mediation: (a) the independent variable must be significantly related to the proposed mediator; (b) the independent variable must significantly affect the dependent variable; and (c) the effect on the independent variable on the dependent variable must be less when the mediator is controlled. When the independent variable has no effect on the dependent variable, perfect (or complete) mediation exists, and when the effect is reduced, partial mediation exists. Using multiple regression techniques, all equations were run controlling for ability. Due to the lack of relationship between the enthusiasm variable and any of the goal scales as well as between enthusiasm and the performance variables (as shown in Tables 5 and 10), the first and second of Baron and Kenny's criteria were not met, and therefore enthusiasm is not considered in the mediator analysis. Only the vision and task strategy variables were tested for mediation effects.

Personal Goal as a Mediator. Personal goals were tested as possible mediators with regard to quality and quantity for the vision and task strategy variables, for a total of four tests. According to Baron and Kenny's procedure, three equations were used for each of the four

tests of mediation. Each set of equations represented one test of mediation. Table 13 shows the results of these tests for personal goals as mediators.

Quality goals were found to completely mediate the vision-performance quality link (Set 1, Table 13). For set 2, quality goals could not mediate because task strategy was not significantly related to quality goal.

Quantity goals could not mediate the vision-performance quantity link (Set 3) because vision was not related to the quantity goal variable nor to performance quantity. Finally, quantity goals partially mediated the task strategy-performance quality relationship (Set 4).

Self-Efficacy as a Mediator. As with personal goals, self-efficacy was tested as a possible mediator between the vision and task strategy variables and performance quality and quantity. The same procedures were used for these four tests of mediation. However, there were approximately 20 missing cases of data (due to these subjects not responding on the questionnaire) for the self-efficacy strength variable, which is one of variables, along with self-efficacy magnitude, forming the self-efficacy scale. Although the vision-performance quality relationship was significant when testing for the main effect (shown in Table 6 and in Table 14, Set 1), the

Table 13

Mediation Test for Personal Goal[a]

Dependent Variable	Variable Entered	R^2	ΔR^2	F for ΔR^2
Set 1: Vision - Quality Goal - Performance Quality				
Quality Goal	Ability	.08	.08	22.9**
	Vision	.12	.04	12.5**
Performance Quality	Ability	.20	.20	67.1**
	Vision	.21	.01	3.4+
	Quality Goal	.30	.09	34.7**
Performance Quality	Ability	.20	.20	67.1**
	Quality Goal	.30	.10	37.4**
	Vision	.30	.00	0.0

+ $p<.10$, * $p<.05$, ** $p<.01$

[a] The R^2 and F-ratio values for the same effects may vary slightly across the regression equations due to missing data. In no case was the significance of the F-ratio affected by this slight variation.

(Table 13, cont.)

Set 2: Task Strategy - Quality Goal - Performance Quality				
Quality Goal	Ability	.08	.08	37.8**
	Task Strategy	.08	.08	0.0
Performance Quality	Ability	.20	.20	67.1**
	Task Strategy	.21	.01	3.4+
	Quality Goal	.31	.10	39.1**
Performance Quality	Ability	.20	.20	67.1**
	Quality Goal	.30	.10	38.7**
	Task Strategy	.31	.01	3.9*
Set 3: Vision - Quantity Goal - Performance Quantity				
Quantity Goal	Ability	.18	.18	60.4**
	Vision	.18	.00	0.0
Performance Quantity	Ability	.28	.28	102.5**
	Vision	.28	.00	0.0
	Quantity Goal	.43	.15	70.3**
Performance Quantity	Ability	.28	.28	102.5**
	Quantity Goal	.43	.15	70.5**
	Vision	.43	.00	0.0

(Table 13, cont.)

Set 4: Task Strategy - Quantity Goal - Performance Quantity

Quantity Goal	Ability	.18	.18	60.4**
	Task Strategy	.20	.02	6.8**
Performance Quantity	Ability	.28	.28	102.5**
	Task Strategy	.34	.06	24.2**
	Quantity Goal	.46	.12	61.8**
Performance Quantity	Ability	.28	.28	102.5**
	Quantity Goal	.43	.15	72.8**
	Task Strategy	.46	.03	14.8**

effects of these missing cases resulted the vision-performance quality relationship becoming non-significant when testing quality self-efficacy as a mediator. To replicate this main effect, the missing cases were replaced with each subject's self-efficacy magnitude score because self-efficacy strength and magnitude were significantly correlated (mean r=.71, p<.01). (Note: an alternative procedure of using the sample mean self-efficacy strength score to replace the missing scores yields results identical to this procedure). The result was that the main effect found in the analysis of variance was replicated in the mediator analysis and the significance levels of the other relationships in the mediator analysis were unchanged. The "replaced" self-efficacy scales were used in all tests of mediation, shown in Table 14.

Quality self-efficacy completely mediated the relationship between vision and performance quality (Set 1, Table 14). Quality self-efficacy could not mediate the task strategy-performance quality relationship (Set 2) due to the lack of relationship between task strategy and quality self-efficacy.

Table 14

Mediation Test for Self-efficacy[a]

Dependent Variable	Variable Entered	R^2	ΔR^2	F for ΔR^2
Set 1: Vision - Quality Self-efficacy - Performance Quality				
Quality	Ability	.13	.13	37.8**
Self-efficacy	Vision	.16	.03	9.2**
Performance	Ability	.20	.20	69.3**
Quality	Vision	.21	.01	3.5+
	Quality Self-efficacy	.33	.12	48.9**
Performance	Ability	.20	.20	69.3**
Quality	Quality Self-efficacy	.33	.13	53.2**
	Vision	.33	.00	0.0

+ $p<.10$, * $p<.05$, ** $p<.01$

[a] The R^2 and F-ratio values for the same effects may vary slightly across the regression equations due to missing data.

(Table 14, cont.)

Set 2: Task Strategy - Quality Self-efficacy - Performance Quality

Quality Self-efficacy	Ability	.13	.13	37.8**
	Task Strategy	.13	.00	0.0
Performance Quality	Ability	.20	.20	69.3**
	Task Strategy	.21	.01	3.5+
	Quality Self-efficacy	.34	.13	53.8**
Performance Quality	Ability	.20	.20	69.3**
	Quality Self-efficacy	.33	.13	53.2**
	Task Strategy	.34	.01	4.1*

Set 3: Vision - Quantity Self-efficacy - Performance Quantity

Quantity Self-efficacy	Ability	.14	.14	43.8**
	Vision	.16	.02	6.2*
Performance Quantity	Ability	.24	.24	86.1**
	Vision	.24	.00	0.0
	Quantity Self-efficacy	.33	.09	36.8**
Performance Quantity	Ability	.24	.24	86.1**
	Quantity Self-efficacy	.32	.08	32.4**
	Vision	.33	.01	4.1*

(Table 14, cont.)

Set 4: Task Strategy - Quantity Self-efficacy - Performance Quantity

Quantity Self-efficacy	Ability	.14	.14	43.8**
	Task Strategy	.17	.03	9.5**
Performance Quantity	Ability	.24	.24	86.1**
	Task Strategy	.30	.06	23.6**
	Quantity Self-efficacy	.37	.07	30.4**
Performance Quantity	Ability	.24	.24	86.1**
	Quantity Self-efficacy	.32	.08	32.4**
	Task Strategy	.37	.05	21.7**

Self-efficacy for quantity did not mediate the vision-performance quantity relationship (Set 3), although vision affected self-efficacy for quantity, which in turn affected performance quantity. This model can be called a "linking" model, in the sense that self-efficacy for quantity links vision to performance quantity. Finally, self-efficacy quantity partially mediated the task strategy-performance quantity relationship (Set 4).

Goal Commitment as a Mediator. Goal commitment for quality was tested as a mediator between vision and performance quality. Table 15, Set 1 shows that goal commitment for quality completely mediated the vision-performance quality relationship.

Because goals and self-efficacy were also found to mediate between vision and performance quality, a test of joint mediation was conducted to determine the effects of goal commitment above those of goals and self-efficacy. Table 15, Set 2 shows that when goals and self-efficacy are added into the regression equation before goal commitment, the effect of goal commitment is not significant. Goals and self-efficacy still mediate the vision-performance quality relationship. When goals and self-efficacy are added into the regression equation after goal commitment (Table 15, Set 3), all three variables mediate the vision-performance quality relationship.

Although goal commitment does serve as a mediator, goals and self-efficacy are more fundamental mediators than goal commitment.

Conclusion

Proposition 7, which concerned goals as a mediator, was generally supported. Proposition 8, which concerned self-efficacy as a mediator, was also generally supported. Although exploratory, consistent relationships were found between goal-related variables and leadership content. The vision-performance quality relationship was completely mediated by quality goals, quality self-efficacy, and goal commitment for quality. The task strategy-performance quantity relationship was partially mediated by quantity goals and quantity self-efficacy.

The same pattern of findings were observed in the analysis of variance results (Table 12). As shown in Table 12, vision was mainly related to the quality variables (for personal goal, goal commitment, and self-efficacy) while task strategy was only related to the quantity variables (for personal goal, anticipated satisfaction, and self-efficacy). When the leader provided information about ideal performance standards, such as with a vision of quality, subjects set more difficult goals, were more committed to their quality goals, had higher self-efficacy regarding the quality

Table 15

Mediation Test for Goal Commitment[a]

Dependent Variable	Variable Entered	R^2	ΔR^2	F for ΔR^2
Set 1: Vision - Goal Commitment for Quality - Performance Quality				
GC-Quality[b]	Ability	.02	.02	6.7*
	Vision	.04	.02	5.4*
Performance Quality	Ability	.20	.20	67.4**
	Vision	.21	.01	3.1+
	GC-Quality	.23	.02	7.3**
Performance Quality	Ability	.20	.20	67.4**
	GC-Quality	.22	.02	8.3**
	Vision	.23	.01	2.1

+ $p<.10$, * $p<.05$, ** $p<.01$

[a] The R^2 and F-ratio values for the same effects may vary slightly across the regression equations due to missing data.

[b] GC-Quality = Goal Commitment for Quality

(Table 15, cont.)

Set 2: Joint Mediation of Goals and Self-efficacy entered before Goal Commitment for Quality

		.22	.22	70.6**
Performance	Ability			
		.23	.01	1.9
Quality	Vision			
	Quality Goal			
		.37	.14	27.3**
	Quality Self-efficacy			
		.37	.00	0.0
	GC-Quality			
		.22	.22	70.6**
Performance	Ability			
	Quality Goal			
Quality		.37	.14	28.3**
	Quality Self-efficacy			
		.37	.00	0.0
	GC-Quality			
		.00	.00	0.0
	Vision			

(Table 15, cont.)

Set 3: Joint Mediation of Goals and Self-efficacy entered after Goal Commitment for Quality

Performance	Ability	.22	.22	70.6**
Quality	Vision	.23	.01	1.9
	GC-Quality	.24	.01	4.5*
	Quality Goal			
	Quality Self-efficacy	.37	.13	24.5**
Performance	Ability	.22	.22	70.6**
Quality	GC-Quality	.24	.02	5.5*
	Quality Goal			
	Quality Self-efficacy	.37	.13	25.2**
	Vision	.00	.00	0.0

of their work, and had higher performance quality. When the leader provided a task strategy, in this case, suggestions on how to perform the task, subjects set higher goals for quantity, anticipated lower satisfaction (i.e., higher standards) regarding their performance quantity, had higher self-efficacy regarding the quantity of work, and had higher performance quantity.

In sum, goals and self-efficacy mediated the vision-performance quality relationship and the task strategy-performance quantity relationship. In order for high performance to exist, the leader's actions must result in the followers setting difficult goals and having high self-efficacy.

Chapter 8

Integration of Quantitative Results

To provide an integration of the results presented in chapters 6 and 7, three path models are presented. The first, initial model and the second, revised model integrate the results from chapter 6. The third, final model incorporates the exploratory results from chapter 7 into the revised model. These models, especially the final model, represent the essence of this dissertation's findings, and are intended to summarize the previous chapters in a parsimonious manner.

For purposes of all analyses in this chapter, interaction terms among the independent variables were dropped from consideration because of their lack of consistent and meaningful impact on the performance, attitude, and perception variables (see chapter 6). In addition, due to the high correlation between enthusiasm for the task and enthusiasm for the vision (r=.72, p<.01, shown in Table 4), these variables were combined into a single scale, task and vision enthusiasm. Also, the willingness to work for the leader variable and the two mood variables were dropped because they were not meaningfully related to the independent variables or to the performance variables.

A variation of path analysis was used to develop an exploratory path model (Kenny, 1979). In the model, shown in Figure 8, the independent variables (leader actions), were coded as a zero-one dummy variable. Ability (shown as C1 for quality and C2 for quantity in the path models) was used as a covariate in all structural equations (Kenny, 1979). The equations were computed (a) with each attitude and perception variable as the dependent variable and the performance variables and manipulated leader actions as the independent variables and (b) with the each performance variable as the dependent variable and manipulated leader actions as the independent variables. The path coefficients are the standardized regression coefficients from the structural regression equations. For purposes of presentation, only paths with statistical significance at the .10 level or below were retained.

Initial Path Model

To conceptualize the causal relationships in the initial path model, it was assumed that in the leadership process, the leader engages in certain actions, which affect the actions (performance), attitudes, and perceptions of the followers. However, during the experiment, the leader's actions were followed by the subjects' performance which was followed by the

measurement of attitude and perception variables. This timing of events allows us to test whether this causal sequence is viable but does not allow us to test for other causal sequences, such as whether attitudes and perceptions cause performance. Thus, a three-stage model was tested. The model is shown in figure 8 and the standardized path coefficients are shown in Table 16.

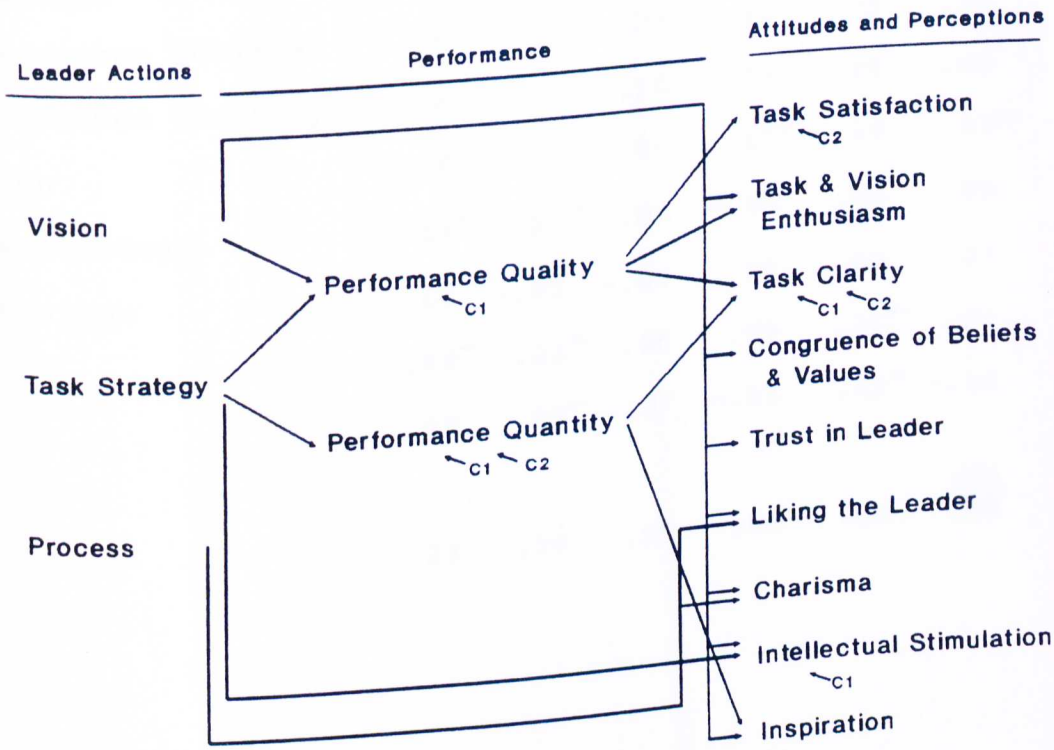
Figure 8 shows that vision and task strategy directly affect performance quality and quantity. Vision directly affects seven attitudes and perceptions. Task strategy directly affects the subjects' feeling of intellectual stimulation. Both vision and task strategy indirectly, through performance, affects five attitudes and perceptions. Enthusiasm did not directly affect performance but did directly affect liking the leader and perceived leader charisma.

Performance quality was directly related to task satisfaction, task and vision enthusiasm, and task clarity. Performance quantity was directly related to task clarity and inspiration.

The independent variables mainly affected attitudes and perceptions toward the leader but not task attitudes, while the performance variables mainly seemed to affect the task attitudes but not attitudes and perceptions toward the leader. It is clear that two distinct sets of

Figure 8

Initial Path Model[a]



[a] For purposes of presentation, path coefficients are not shown and only paths with statistical significance of .10 or below are shown. The ability covariate for quality is shown as C1 and for quantity as C2.

Table 16

Standardized Path Coefficients for Figure 8

Independent Variables	Dependent Variables[a] P-QL	P-QT	SAT	T&V	CLAR	CONG
Performance Quality	--	--	.34**	.12+	.29**	.00
Performance Quantity	--	--	.15*	.09	.19**	.00
Vision	.10+	-.02	.05	.11+	.00	.33**
Task Strategy	.11*	.27**	.08	-.03	.06	.09
Enthusiasm	.05	-.07	-.04	.04	.08	.03
C1[b]	.48**	.23**	.06	.03	.21**	.04
C2[b]	.07	.58**	.12+	-.02	.22**	-.10
R^2	.23	.36	.20	.04	.29	.13

[a] P-QL = Performance Quality, P-QT = Performance Quantity, SAT = Task Satisfaction, T&V = Task & Vision Enthusiasm, CLAR = Task Clarity, CONG = Congruence of Beliefs & Values

[b] C1 = ability co-variate for quality; C2 = ability co-variate for quantity

(Table 16, cont.)

Independent Variables	Dependent Variables[b] TRST	LIKE	CHAR	STIM	INSP
Performance Quality	.10	.09	.00	.00	.08
Performance Quantity	.10	.03	.02	.05	.13*
Vision	.17**	.13*	.45**	.24**	.34**
Task Strategy	.06	.02	.09	.26**	.03
Enthusiasm	.06	.18**	.14**	.07	.07
C1	.04	.05	-.02	-.13+	-.07
C2	.00	-.01	.07	-.08	-.04
R^2	.07	.07	.24	.15	.15
MS error					

[b] TRST = Trust in Leader, LIKE = Liking the Leader, CHAR = Charisma (Form 8Y), STIM = Intellectual Stimulation, INSP = Inspiration

attitude and perception variables emerged, a set of task attitudes (task satisfaction, task and vision enthusiasm, and task clarity) and a set of attitudes and perceptions toward the leader (congruence of beliefs and values, trust in leader, liking the leader, charisma, intellectual stimulation, and inspiration). The possibility that these two sets of variables could emerge as meaningful components was examined by conducting a principal components analysis on the attitude and perception measures and then re-analyzing the path model using the resulting components. This is discussed below.

Revised Path Model

The results of the principal components analysis are presented in Table 17. This confirmed the presence of a task attitudes component and an attitudes and perceptions toward the leader component. These components were computed as scales, task attitudes and attitudes/perceptions toward the leader, and were entered as dependent variables in the path model, as shown in Figure 9. The standardized path coefficients are shown in Table 18.

Vision and task strategy variables affect task attitudes indirectly through the performance variables. Also, the vision and task strategy variables as well as

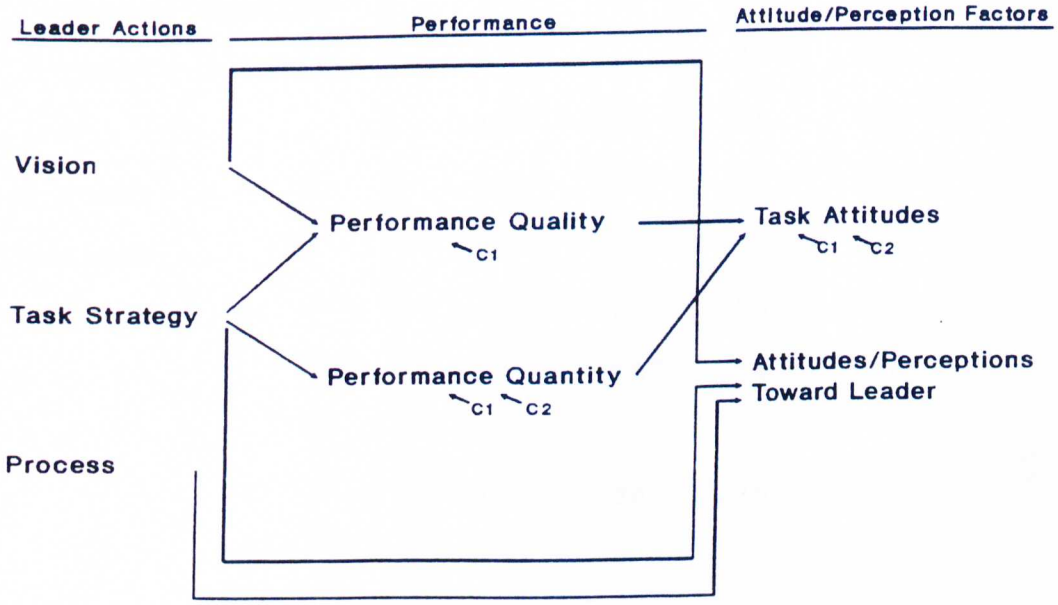
Table 17

Principal Components Analysis of Attitude and Perception Variables

Attitude/Perception Variable	Task-Related Variables	Leader-Related Variables
Task Satisfaction	.85	.14
Vision and Task Enthusiasm	.69	.31
Task Clarity	.64	-.01
Congruence of Beliefs and Values	.01	.59
Trust in the Leader	.25	.69
Liking the Leader	.04	.71
Leader's Charisma	.21	.85
Intellectual Stimulation	.13	.70
Inspiration	.25	.73

Figure 9

Revised Path Model[a]



[a] For purposes of presentation, path coefficients are not shown and only paths with statistical significance of .10 or below are shown. The ability covariate for quality is shown as C1 and for quantity as C2.

Table 18

Standardized Path Coefficients for Figure 9

Independent Variables	Dependent Variables[a] P-QL	P-QT	TA	A&P-L
Performance Quality	--	--	.33**	.03
Performance Quantity	--	--	.19**	.06
Vision	.10+	-.02	.08	.37**
Task Strategy	.11*	.27**	.05	.14*
Enthusiasm	.05	-.07	.04	.14*
C1[b]	.48**	.23**	.13*	-.03
C2[b]	.07	.58**	.14*	.00
R^2	.23	.36	.25	.20

[a] P-QL = Performance Quality; P-QT = Performance Quantity; TA = Task Attitudes; A&P-L = Attitudes & Perceptions Toward Leader

[b] C1 = ability co-variate for quality; C2 = ability co-Variate for quantity.

enthusiasm directly affected attitudes and perceptions toward the leader. But, enthusiasm did not have any direct or indirect effects on performance or task attitudes. This model represents an integration of results from chapter 6.

Final Path Model

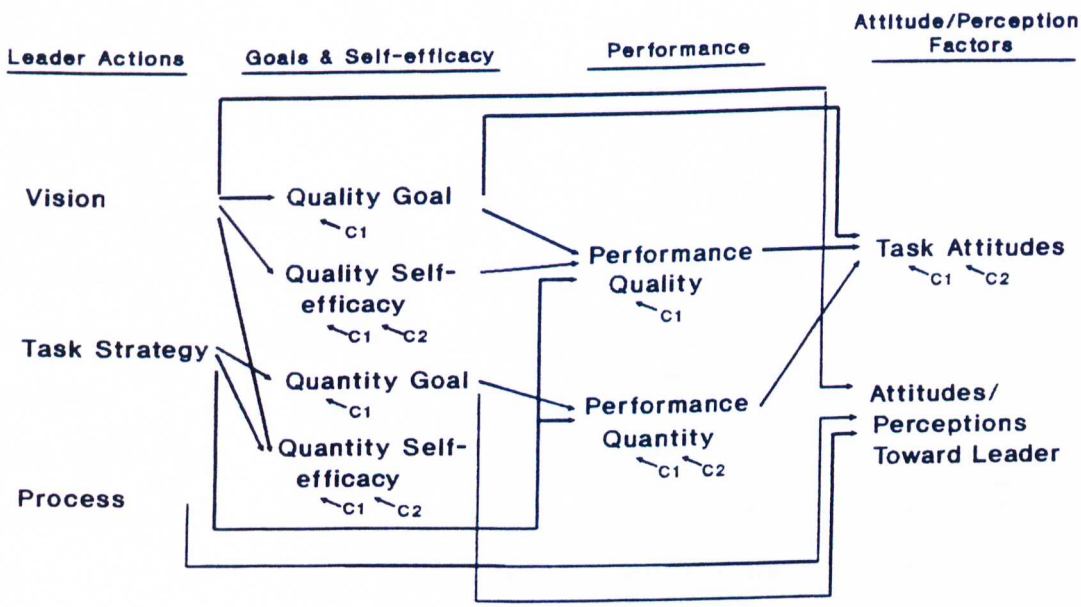
The exploratory mediation results were integrated with the revised path model by analyzing a final path model. The goal and self-efficacy variables were inserted between leader actions (or independent variables) and performance because they were found to mediate between these variables. Although goal commitment for quality was found to be a mediator, goals and self-efficacy for quality were more fundamental mediators than goal commitment. Thus, goal commitment for quality was omitted from the path model.

This resulted in a four-stage model, with leader actions affecting the goals and self-efficacy, which in turn affect performance. Performance, in turn, affects attitudes and perceptions. This model is shown in Figure 10, and the standardized path coefficients are shown in Table 19.

This final model represents the essence of the findings of this dissertation. It integrates the all

Figure 10

Final Path Model[a]



[a] For purposes of presentation, path coefficients are not shown and only paths with statistical significance of .10 or below are shown. The ability covariate for quality is shown as C1 and for quantity as C2.

Table 19

Standardized Path Coefficients for Figure 10

Independent Variables	Dependent Variables[a]			
	G-QL	SE-QL	G-QT	SE-QT
Quality Goal	--	--	--	--
Quality Self-efficacy	--	--	--	--
Quantity Goal	--	--	--	--
Quantity Self-efficacy	--	--	--	--
Performance Quality	--	--	--	--
Performance Quantity	--	--	--	--
Vision	.21**	.17**	.02	.16**
Task Strategy	.07	.06	.16*	.13*
Enthusiasm	.05	.04	-.05	-.04
C1[b]	.30**	.43**	-.08	-.15*
C2[b]	.07	.22**	.45**	.39**
R^2	.13	.20	.21	.17

[a] G-QL = Quality Goal; SE-QL = Quality Self-efficacy; G-QT = Quantity Goal; SE-QT = Quantity Self-efficacy.

[b] C1 = ability co-variate for quality; C2 = ability co-variate for quantity

(Table 19, cont.)

Independent Variables	Dependent Variables[c] P-QL	P-QT	TA	A&P-L
Quality Goal	.14*	.06	.12+	.06
Quality Self-efficacy	.34**	.00	.02	.07
Quantity Goal	-.11	.38**	.04	.26**
Quantity Self-efficacy	-.04	.04	.08	-.02
Performance Quality	--	--	.27**	.01
Performance Quantity	--	--	.17*	-.05
Vision	-.01	-.02	.05	.32**
Task Strategy	.11*	.18**	.05	.07
Enthusiasm	.04	-.03	.02	.14*
C1	.31**	-.17**	-.08	-.05
C2	.04	.40**	.09	-.04
R^2	.40	.51	.28	.24

[c] P-QL = Performance Quality; P-QT = Performance Quantity; TA = Task Attitudes; A&P-L = Attitudes & Perceptions Toward Leader

results into one diagram. Consistent with the mediation results, vision indirectly affects performance quality through quality goals and quality self-efficacy. Task strategy indirectly affects the performance quantity through quantity goals. Task strategy also directly affects quantity self-efficacy as well as both performance variables. With respect to the rest of the model, it is similar to the revised model. Vision, task strategy, and enthusiasm each directly affect attitudes and perceptions toward the leader. Task attitudes are only affected indirectly by vision and task strategy, through performance, goals, and self-efficacy.

In sum, with respect to goals, self-efficacy, performance, and task attitudes, leadership content is important. That is, performance was only affected by content and not by process. More specifically, the vision, which was a vision of quality, affected quality variables (goals, self-efficacy, and performance). Task strategy, which was concerned mainly with quantity and to a lesser degree with quality, affected quantity variables (goals, self-efficacy, performance). Vision and task strategy affected task attitudes indirectly. With respect to attitudes and perceptions toward the leader, all three leader actions were influential.

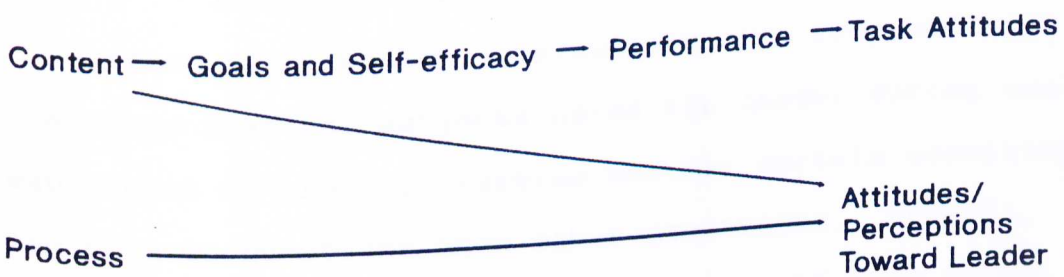
Summary: Conceptual Model

To further simplify the results, a conceptual model of the findings is presented in Figure 11. This figure shows the essence of the relationships found in this dissertation at a more general level. The content of a charismatic leader's communication affects followers' goals and self-efficacy, which in turn affect followers' performance. Performance in turn affects followers' task attitudes. Both the content and the process affect followers' attitudes and perceptions toward the leader.

From these models, it is clear that both content and process have effects, but the patterns of effects are different. In other words, charismatic leadership affects both performance and attitudes, but its different components work in different ways.

Figure 11

Conceptual Model



Chapter 9

Qualitative Results

Qualitative data supported many of the propositions and provided insight into what the subjects were thinking during the experiment.

Subjects' Questions During Experiment

After each session, the experimenter recorded any questions that the subjects asked the leader during the experiment in order to examine whether certain conditions led to more questions than other conditions. Overall, subjects asked the leader 31 questions. Of this total, 17 concerned scoring procedures (e.g. how do I score the binder? what counts as an error?), 3 concerned the questionnaires (e.g., do I complete each item?), 5 concerned the process of the experiment itself (e.g. do we work on binder 2 or 3 now?), 6 concerned the type of work done by BKC (e.g, does BKC use recycled paper? are BKC's work processes automated?). Thus, most questions were information-seeking questions about how to proceed with the experiment.

Fewer questions were asked in the no vision conditions than the vision conditions (10 and 21 questions, respectively), possibly indicating that the

vision led the subjects to think about the task, increasing their intellectual stimulation. Slightly fewer questions were asked in the no task strategy versus task strategy conditions (13 and 18 questions, respectively), and in the low versus high enthusiasm conditions (12 and 19 questions, respectively). An approximately equal number of questions were asked of the male versus female leader (14 and 17, respectively). An overall $\underline{X}^2$ test (combining across male versus female leader) indicated a significant relationship between experimental condition and the number of questions asked ($\underline{X}^2 = 9.25$, $\underline{p}<.05$).

Subjects' Comments

At the end of the experiment, subjects were asked to write any comments about their experiences.

Suspicious Subjects

The experiment and leaders were intended to be as realistic as possible. It would have been difficult to directly measure whether the subjects thought that the leaders were real or credible. Direct questionnaire items to this effect, even if asked at the end of the experiment, could have cued the subjects that the leaders were actually confederates. It is quite likely that this would have contaminated subsequent sessions if these subjects would have communicated this to other subjects.

So, suspiciousness was only assessed via subjects' written comments to some general questions (e.g., In general, what did you think of the [leader]?). From these written comments, 22 (of the 282) subjects indicated suspiciousness about the leader. Seven of these 22 comments were in the no vision/no task strategy/low enthusiasm cell. Also, 15 were in the no vision condition. This may indicate that a leader's expression of a vision was congruent with the subjects' ideas of "normal" leader behavior whereas a leader's communication of factual information was incongruent with subjects' ideas of leadership. Nevertheless, it was encouraging that only 8% of the subjects spontaneously expressed some degree of suspiciousness. There were no differences between the male and female actor regarding suspiciousness (12 and 10 comments, respectively).

Leader Influence

When asked whether the leader influenced their performance, responses depended mainly on the vision and task strategy variables and, to a lesser extent, on the enthusiasm variable. Sixty-two subjects wrote that the leader had a positive impact on their performance. The leader had a more positive impact when expressing a vision as compared to no vision (58 and 4 comments, respectively) and when communicating a task strategy as compared to no

task strategy (40 and 22 comments, respectively). Some representative comments that indicate this are the following:

> She kept expressing quality...I wanted to do my best! She made me pay attention and do a good job. (Vision, task strategy, high enthusiasm)
>
> Yes, he seemed to care about it, so he made it more interesting. Yes, at first I was thinking "speed & accuracy." Then I thought just "accuracy" and the speed followed. (Vision, task strategy, low enthusiasm)
>
> She made me feel as though it were my obligation to perform this task effectively and efficiently. (Vision, no task strategy, high enthusiasm)
>
> The CEO made me realize that the task was not as difficult as I thought by giving helpful hints about how to carry on the experiment. The CEO helped me to do better by offering a new way to complete the task. He appeared to be a stickler for quality. (Vision, task strategy, low enthusiasm)

> Yes, she really encouraged us to excel as well as [gave] us tips on how to complete the tasks. (Vision, task strategy, high enthusiasm)

> He told us how important it was, and it made me take the experiment more seriously. He reminded me that mistakes, no matter how few, are not acceptable. Work should be done carefully. (Vision, no task strategy, low enthusiasm)

Similarly, 38 subjects wrote that the leader <u>did not</u> influence their performance or <u>did</u> influence it but in a negative manner. Most of these comments were in the no vision as compared to vision (19 and 9 comments, respectively) condition and were in the low enthusiasm as compared to high enthusiasm condition (28 and 10 comments, respectively). Some representative comments indicating these findings as are follows:

> The CEO did not influence me about the task at all, either positively or negatively. No, during the task I didn't think about the CEO being in the room or about anything he said before the experiment. (No vision, no task strategy, low enthusiasm)

I thought she was very boring and a waste of time. She actually turned my enthusiasm the other way. (No vision, task strategy, low enthusiasm)

No, I was challenging myself and could [have] cared less about him. (No vision, no task strategy, low enthusiasm)

She made it seem that it really wasn't important. Any interest in doing the project was self-motivated. (No vision, no task strategy, low enthusiasm)

These comments support the statistical findings that the vision had the greatest impact on performance. The vision focused attention on quality and away from quantity, showed why the task was important, and served to motivate and inspire the subjects to work toward it. To a lesser extent, the task strategy information helped the subjects figure out how to do the task better, while a low enthusiasm leader was not particularly liked by the subjects.

Attitudes Toward the Task

Subjects were asked to write their comments about the task or experiment in general. Thirty-one subjects wrote that they thought the task was fun, challenging, and interesting. This was related to the vision condition (23

comments in vision and 8 in no vision) and the task strategy condition (23 comments in task strategy and 8 in no task strategy). These comments were unrelated to enthusiasm (14 comments in low enthusiasm and 17 in high enthusiasm). Some representative comments are the following:

> I thought it was interesting and really wanted to be able to finish one of the binders or at least get about half way through with 0 errors! (Vision, task strategy, high enthusiasm)

> The experiment motivated you to do good [sic] and improve as you went along. It fired you up as you got busy. (Vision, task strategy, high enthusiasm)

> Good experiment - I enjoyed the challenge. (Vision, task strategy, high enthusiasm)

> I felt it was a good experiment for me as well as helping out the company. (No vision, task strategy, high enthusiasm)

> I liked the experiment. It was kind of fun. (Vision, task strategy, low enthusiasm)

> Interesting. Actually, is a chance for me to exercise a part of my brain that hasn't been used lately. (Vision, task strategy, low enthusiasm)

> Experiment was quite good. The experiment showed me, no matter how simplistic a task may be there is a lot of thought process that must be put into it prior to execution. (Vision, task strategy, high enthusiasm)

> It was a worthwhile experience. (Vision, task strategy, high enthusiasm)

Similarly, most of the 47 subjects who wrote comments indicating that the task/experiment was difficult, boring, and tedious were in the no vision condition (29 comments in no vision and 17 in vision). There were small differences for the task strategy variable (27 comments in no task strategy and 20 in task strategy) and the enthusiasm variable (27 comments in low enthusiasm and 20 in high enthusiasm). Some representative comments are the following:

> I did the experiment for the points and that's all. (No vision, task strategy, low enthusiasm)

> It was boring. (No vision, task strategy, low enthusiasm)

I really found the experiment boring - I don't know or understand why they are doing this. (No vision, no task strategy, low enthusiasm)

From the first binder we did, I had the impression that the task was boring and tedious. (No vision, task strategy, low enthusiasm)

No, the task was boring, and he did nothing to help. (No vision, no task strategy, high enthusiasm)

It was boring and quite stupid! (No vision, no task strategy, high enthusiasm)

A very boring and tedious experiment. (No vision, no task strategy, high enthusiasm)

Overall, these comments indicate that without the vision, the experiment made no sense. It was simply "busy work" to the subjects. They did not understand the purpose of the experiment, why the task was important, or how their work would help the company. The subjects' perceptions of the task are especially interesting considering that, regardless of condition, each subject performed the same task under the same conditions. The leader's vision (or lack of it) and to a lesser extent,

the leader's enthusiasm level affected how the subjects perceived the task. The characteristics of the job itself were held constant.

Experimenter's Observations

Serving as the experimenter, my own observations generally confirm the subjects' comments about the experiment. There were differences in the mood or atmosphere of the experiment. In particular, during no vision/no task strategy/low enthusiasm sessions there was tension in the room. While the subjects were working, the room was very quiet. Subjects had facial expressions of boredom and frustration. While waiting for other subjects to finish scoring or to complete a questionnaire, subjects tended to close their eyes, put their heads down on their desks, or work on class assignments. Overall, the atmosphere was negative and tense.

In contrast, during the vision/task strategy sessions, regardless of enthusiasm level, the atmosphere was one of working quickly to get the job done. The room was filled with sounds of papers shuffling and binders opening and closing. While waiting, subjects organized their work areas or checked over their work a second time to try to figure out why they made a mistake. Overall, the atmosphere was a positive one.

Although the subjects listened to the low enthusiasm leader, they tended to have blank stares on their faces while listening or to look away from the leader while listening. During the high enthusiasm sessions, subjects tended to watch the leader intently. The high enthusiasm leader seemed to "grab" the subjects' attention, regardless of what he/she was saying.

Actors' Comments

Throughout the experiment, both actors were asked to keep a journal of their impressions of the experiment. They each provided a written summary of their experiences during the experiment. Although they both had the talent and experience to portray the desired behaviors (and that they did so was confirmed via the manipulation checks), they found the experiment an emotionally difficult experience for three reasons.

First, it was difficult for them to display the same behaviors and to communicate the same scripts over a period of eight weeks. Although they had the scripts memorized, they found it a "rote exercise" to say the same thing many times. The male actor felt that at first, the vision material was inspirational and interesting, but after expressing the vision eight times he found the material "empty" and non-motivational.

Second, the requirements of the experiment went against their natural tendencies. The male actor had considerable experience doing "one-man" shows where he did a lot of improvising. He felt that the requirements of the low enthusiasm condition and the lack of interaction with the subjects went against his natural tendencies, causing him to feel uncomfortable. He also had a personal style of using humor, which was suppressed during the experiment. The female actor was mostly experienced with stage plays and enjoyed the experiences of developing a rapport or "getting in sync" with the other actors during performances. Working alone was not enjoyable to her. She felt she was boring during the no vision sessions whereas she felt she was being helpful during the vision and task strategy conditions. Although she was polite, she also felt that she was being extremely rude to the subjects during the low enthusiasm conditions because she was not showing interest in the experiment.

Third, the decomposition of the process and content variables was another source of difficulty. It makes sense to most people, and the above subject comments confirm this, that leaders are interesting and expressive people who enjoy talking about their company. Thus, the vision/low enthusiasm condition and the no vision conditions went against the common perceptions how a

leader acts. Performing sessions that did not fit with common perceptions of how a leader should act caused the actors to feel less confident of their performances; they felt that these performances were "phony" and that "the artifice was showing through." They both found it much easier, from a personal and emotional viewpoint, to be highly enthusiastic, to give an interesting vision, and to be helpful to the subjects by telling them the task strategies. It was a difficult experience for the actors to be purposefully uninterested during the low enthusiasm sessions, to purposefully present the irrelevant and dull no vision material, and to knowingly withhold the helpful task strategy information.

Still, both leaders intently expressed that the experiment was challenging to them. They each learned a lot about their personal styles as well as about communicating ideas, which they felt would improve their acting skills. They enjoyed the experience of working with the undergraduate subjects and found the idea of helping conduct an experiment to be interesting. The implications of these experiences for training leaders are discusses in chapter 10.

Summary

The qualitative results are valuable three in ways. First, they support the quantitative results that the vision variable had the most impact on performance, attitudes, and perceptions. Second, they suggest some new research directions concerning the effect of leadership on job attitudes. Third, they have implications for training leaders to be effective.

Chapter 10

Discussion

To answer the questions posed by this dissertation, the content of a leader's vision affects followers' performance, task attitudes, and attitudes and perceptions toward leader both directly and indirectly. The process or style of a leader's communication directly affects followers' attitudes and perceptions toward the leader, but does not affect followers' performance or task attitudes.

In this chapter, I will discuss the limitations of the research, the implications for theory, methodology, and practice, and future research directions.

Limitations

There at least are four limitations to this dissertation. First, the time span was only 2 hours, as compared to the years or decades which characterize the tenure of organizational leaders. Although the effect sizes (ω^2) for the independent variables were small, it is encouraging that significant effects were found despite the short time span. Over a longer time period, the vision effects would probably be stronger due to its being repeated many times and in many different ways (e.g.

through role modeling) and being reinforced by the reward system. The effects of process may play a larger role in the long run, such as by encouraging people to remain with the organization rather than leave. This could affect performance indirectly through the retaining of skilled employees. Further, outcomes such as mood could be enhanced by repeated doses of leader enthusiasm.

Second, the leader in this study led only small, independent groups of subjects. Different effects may occur when leading a large group in that the subordinates could motivate each other as a result of the leader's actions. Specifically, a leader's impact on a group of followers may result in social contagion effects. The followers may advance the leader's and other followers' ideas for implementing the vision, resulting in a synergistic effect. These group-level effects may result in stronger effects, as compared to individual-level effects, of the leader on follower performance, attitudes, and perceptions. On the other side of the same coin, real leaders can motivate one-on-one (e.g. Bass' individualized consideration) which could produce stronger effects than group-level actions.

Third, the simulated task performed by the subjects was also a function of their ability. Ability accounted for a larger proportion of variance in performance than

did the leader's actions. However, the leader's actions were significant when individual ability was controlled, indicating that the leader had an effect over and above ability. The experimental setting and relatively short time period (40 minutes of actual work on the task) may have encouraged people to work close to their capacity. It is likely when the leader has the opportunity to communicate and implement a vision over a period of years, the leader will have a stronger effect on followers' performance.

Fourth, results found here will need to be replicated with employees in actual jobs. Most jobs include attributes not examined here, such as technological demands and constraints, and interactions with co-workers and supervisors. Actual jobs may also differ on traditional job attributes, such as skill variety, task identity, task significance, autonomy, and feedback (Hackman & Oldham, 1980). Instead of assuming that a field study will yield identical results to this dissertation, this assumption should be tested (Locke, 1986).

Implications

Theoretical Implications

This study clarified the nature of charismatic leadership, by decomposing the components found in the Howell and Frost study and the components specified by theory. Specific theoretical implications are discussed for vision, vision implementation, and enthusiastic communication style.

Vision. Vision affects performance as well as the followers' attitudes and perceptions toward the leader. Vision also indirectly affects performance quality and quantity through goals and self-efficacy. These are two mechanisms by which leader actions affect follower performance. It is clear that the vision affected quality-related variables because the vision used in this dissertation stressed quality.

Other types of vision could similarly affect other outcomes through the same mechanisms. For example, a leader could communicate a vision of being a low-cost producer. In this case, employees may then set cost-reduction goals and have high self-efficacy for achieving them, which would, in turn, result in actual cost reduction.

It should be noted, on the negative side, that visions do not have to be coherent. A vision could

conceivably promote complex and conflicting values. An example is Sears' vision statement from chapter 3, "Value at a decent price." This vision specifies both value, or quality, and decent price, or low-cost, which can be in conflict. In this case, employees' may choose to tradeoff one part of the vision for the other.

The vision manipulation was made up of several sub-components, including the vision itself, the vision statement, arousing motives via competition (comparison of performance with competing printing companies' employees), and building self-efficacy. It is possible that each sub-component has a different effect. However, fuller decomposition could result in sub-components that are too small or weak to cause any significant effects. Future research could test this possibility.

Vision Implementation: Task Strategy. One way a leader can implement the vision at a micro-level is via information dissemination concerning how to approach the task. This dissertation found that the task strategy information facilitated performance. Because the task strategy provided information on how the subjects could perform the task better, it affected mainly performance quantity and, to a lesser extent, performance quality. Quantity goals mediated the task strategy-performance quantity relationship. Goals were found to be another

mechanism through which the leader, via the task strategy information, influences followers.

As with the vision, it is clear that other types of task strategies would yield effects congruent with the content of each type of strategy. For example, a strategy to achieve cost-reduction may include giving employees suggestions in order to reduce costs, such as asking a supplier for a discount on large orders. Again, future research could examine the effect of other types of task strategies, but it is quite likely that similar direct and indirect effects will occur.

It is also important to point out that leaders need to take many types of actions to implement the vision. This experiment examined only one type of implementation, disseminating information in the form of a task strategy. Clearly, leaders must manage a wealth of information (Locke et al., 1991). Leaders are constantly gathering, integrating, and disseminating information (Fleishman et al., 1992; Locke et al., 1991). This dissertation supported information dissemination as one effective way to implement the vision.

Besides disseminating information, leaders use five additional methods to implement the vision (Locke et al., 1991), including (a) agenda development; (b) structuring; (c) selecting, acculturating, and training; (d)

motivating; (e) team building; and (f) promoting change, innovation, and risk-taking. Although future research is needed to test for the effects of these actions, it is quite likely that these actions will have direct and indirect effects on employees' performance similar to the ones found here. A leader who uses many suitable and coordinated implementation methods is more likely to successfully implement the vision than one who uses few implementation methods. Clearly, the vision will probably not be successfully implemented if the leader only disseminates information (or exclusively pursues only one implementation method), no matter how relevant or important the information.

Enthusiastic Communication Style. The process used by a charismatic leader to communicate did not affect performance. However, it did affect attitudes and perceptions toward the leader, although more weakly than vision and task strategy.

The presence of an enthusiasm by vision interactions on goals and self-efficacy indicates that high enthusiasm may have detrimental effects in combination with a vision, but facilitative effects in combination with no vision. When hearing the vision, subjects may have been distracted by the leader's high enthusiasm and not have paid close attention to the vision. But, high enthusiasm may have

facilitated subjects' attention to the no vision script. These interactions only affected goals and self-efficacy and did not affect performance. Therefore, they may not have important practical implications for increasing performance.

The results of the manipulation checks suggest that an enthusiastic style may be attributed to leaders who communicate a vision or task strategy regardless of the actual enthusiasm behaviors. One possible explanation for this is that the actors actually displayed higher enthusiasm during the vision and task strategy manipulations than when these were not present. However, they were trained to exhibit the same enthusiasm behavior regardless of content condition. A second explanation is that people see high enthusiasm and vision communication as concepts that go together and would therefore be likely to report that both occurred. Individuals probably organize high enthusiasm and vision in the same or highly related knowledge structures or schemas. The mere act of communicating a vision or task strategy "shows" that the leader is enthusiastic toward and interested in the organization. Subjects may have perceived high enthusiasm when hearing the leader communicate the vision even though the leader displayed the same level of enthusiasm

regardless of vision condition. These explanations will need to be examined in future research.

Mechanisms of Charismatic Leadership. The relationship between content, but not process, and performance was mediated by goals and self-efficacy. The vision and the task strategy caused followers to spontaneously set challenging goals for performance and increased their self-efficacy. This supports House's (1977) proposition that charismatic leaders affect followers' goals and self-confidence. The present findings represent a first step toward understanding how charismatic leaders affect follower performance. In addition, these findings supported previous goal setting and self-efficacy research that goals serve as mediators (Locke & Latham, 1990). It also supported Locke's (1991) concept of the motivational "hub," which argues that goals and self-efficacy are closer to actions than other causal variables in the realm of motivation.

Although strength of the main, or direct, effects of the independent variables on the dependent variables were small (Cohen, 1977), the strength of the effects (as indicated by the R^2 values in the regression equations testing for mediation) were considerably larger for the indirect effects through the mediating variables. This indicates that the mediators are essential in order for a

leader's charisma to affect followers' performance, attitudes, and perceptions.

Other mechanisms suggested by the literature should be examined in future research, such as commitment to the leader (House, 1977).

Other Theoretical Implications. This dissertation provided support for the ideas that the perception of charisma is due to actions exhibited by charismatic leaders. This is consistent with recent approaches that focus on the specific acquired skills and actions (e.g. developing and communicating a vision) than rather focusing just on a charismatic style or personality (Collins & Porras, 1991; Conger, 1989; Uleman, 1991; Willner, 1984). Both vision and enthusiasm were associated with a leader being regarded as charismatic.

In addition, this dissertation answered the question posed by Conger and Kanungo (1988) about whether charismatic leadership is either a dichotomous or scalar phenomenon. If charisma is a dichotomous phenomenon, all characteristics of charismatic leadership would be required in order to be perceived as charismatic. An interaction of vision and enthusiasm on the charisma scale would be expected if this were the case. Instead, only main, or additive, effects for vision and enthusiasm on the perception of charisma were found. This indicates

that the presence of vision or enthusiasm separately contribute to the perception of the leader as charismatic. Thus, charisma is more properly conceptualized as a scalar phenomenon (e.g., a continuum). Although vision has stronger effects than enthusiasm, each contributed to the perception of charisma. When neither vision nor high enthusiasm are present, perceived charisma (measured with Bass' Form 8Y scale) is low. Charisma is rated as slightly higher when only high enthusiasm is present, followed by vision only. It is rated highest when both vision and high enthusiasm are present.

The effects on task attitudes are similar to those found in previous research on the motivation sequence (Locke, 1991). Most previous research has examined the relationship between performance and task satisfaction, concluding that performance success is the main determinant of satisfaction. This dissertation found that high performance led to a high task satisfaction, task clarity, and enthusiasm for the task/vision.

It is also interesting to note the relationships that were not present in the final model. That is, performance did not affect attitudes and perceptions toward the leader. Some theorists have speculated that the presence of leadership and the inference of attitudes and perceptions toward the leader is attributed to the leader

according to the follower's own or group success (Calder, 1977; Pfeffer, 1977). That is, if an individual has high performance, the individual will then attribute this high performance as being due to the leader, regardless of whether the leader had any effect. In fact, Pfeffer (1977) speculates that leaders have no actual effects on followers' performance. If this theory were true, then no effect of leader actions on performance, attitudes, or perceptions would have been found but follower performance would have been significantly related to attitudes and perceptions toward the leader. Instead, the leader's actions had predictable and meaningful effects on performance, attitudes, and perceptions; follower performance did not significantly affect attitudes and perceptions toward the leader. Thus, no support was found for this type of attributional leadership theory.

This dissertation also has implications for more general leadership models. Specifically, the Locke et al. (1991) process model of leadership states that effective leaders possess certain traits (one of which is charisma) and knowledge, skills, and abilities which contribute to their ability to develop a vision. The vision must then be implemented in order for the leader to be effective. Although this dissertation did not specifically test all these processual linkages, support was found for three

relationships specified by Locke et al.'s model: (a) effective leaders communicate a vision, (b) task strategy is one way that effective leaders implement vision, and (c) the vision-leader effectiveness relationship is mediated by followers' goals and self-efficacy.

Finally, the qualitative results suggest an interesting new research direction - the effects of charismatic leadership on job attitudes. Subjects in the vision or task strategy conditions found the task interesting and engaging, but those in the no vision or no task strategy conditions reported that the task was boring and senseless. The vision attempts tell each employee how their specific job fits into the purpose and values of the organization. The leader may have influenced the subjects' experienced meaningfulness of the task (Hackman & Oldham, 1980).

In sum, this dissertation provides evidence that even though charismatic leadership is a complex phenomenon with many different effects, it can be systematically and objectively studied.

Methodological Implications

This dissertation has three implications for the methodology used to study charismatic leadership. First, it increases our confidence in our ability to study leadership in a controlled setting. Manipulating

leadership components in an experimental setting permitted extraneous sources of variance to be controlled, the direction of causation in the leadership process to be determined, and the leadership elements to be separated. More research will be needed to completely rule out other possible types of causation (e.g. the effects of attitudes toward the leader on task attitudes).

Second, this dissertation further developed Howell and Frost's (1989) "actor" methodology. The actors were able to successfully learn and consistently demonstrate charismatic leadership. Displaying charismatic leadership was a difficult experience for the actors, but this was mainly due to the demands of the experiment and not to the demands of learning to be charismatic. The actor methodology seems to be a viable way to study leadership processes. Future users of this methodology should be certain to take appropriate steps in selecting and training actors as well as verifying their behaviors.

Finally, this study shows that basic research on leadership is possible and suggests the ultimate feasibility of building, over a long time span, an inductive theory of leadership. This contrasts with being overly concerned with building a grand "theory" in advance of sufficient knowledge (Campbell, 1977). By systematically studying the effects of charismatic

leaders, progress can be made toward understanding this phenomenon.

Practical Implications

The fact that charismatic leadership can be trained has implications for the current trend toward work teams and decentralization. Organizations are relying more and more on personal influence rather than an explicit hierarchy of authority to accomplish the work. Organizations may want to take advantage of the present findings by applying them to their leader training and selection methods.

First, if performance is the main criterion, the vision is the most important factor for which to train and/or select. This is consistent with Bennis and Nanus' (1985) observation that a charismatic style or personality trait (i.e. process) was not related to leadership effectiveness. Rather, as suggested by Bennis and Nanus and by the results found in this dissertation, an effective leader should provide direction to followers, through the vision and vision implementation.

Second, the fact that actors can be trained to exhibit charismatic leadership behaviors may mean that it is possible for almost anyone to learn how to be charismatic. This dissertation provided evidence that the effects on performance is the result of acquired skills

that can be learned or developed, rather than a "style" or personality trait with which one is born. This is congruent with Conger and Kanungo's (1988) viewpoint that charismatic leadership qualities can be trained.

The results of this dissertation advise practitioners and trainers who are concerned with improving performance to emphasize the content of a leader's communications. Employees must be skilled at the visioning process. Collins and Porras (1991) recount some of their learning experiences from advising leaders who are developing their vision and strategic vision. They provide a framework that has guided their training methods and has been useful for helping trainees understand vision.

In addition, it is desirable to train and develop employees in skills needed to implement the vision. The Locke et al. (1991) model specifies six implementation methods which employees could be trained to use. Although some of these methods are already familiar to organizations, such as selecting and training employees, organizations need to ensure that leaders are trained in these areas rather than leaving these functions up to a specialized department (for example, the human resource department) or committee.

Third, if the organization wishes to affect attitudes and perceptions toward the leader, then employees should

receive communication skill training. Although such training will not affect an individual's personality, it will improve their communication process. Speech and articulation skills were not examined in this dissertation, but such training should include these skills as well as listening skills and interpersonal sensitivity skills (Conger & Kanungo, 1988). Because leaders usually interact with followers on a daily basis, several types of process skills may be required. And, as stated above, this may have other positive results, such as reduced absenteeism or reduced leader-follower conflict. Such training may not only affect followers' attitudes and perceptions toward the leader but may also produce increased self-efficacy on the part of the leader.

Fourth, when selecting leaders, this dissertation provides some advice about the types of characteristics organizations should look for in an effective leader. When selecting for leadership positions, organizations should hire individuals who have the ability to develop, communicate, and implement a vision. To do this, knowledge of the industry and organization is needed. The organization may wish to select employees for leadership positions based on their relevant knowledge and expertise, and then train the individual to apply this knowledge and expertise to the organization by developing a meaningful

vision. It is crucial that the leader learn how to translate this expertise so that it focuses attention and provides a unique image of the future. The importance of this can be seen in the no vision manipulation. In this condition, the leader was knowledgeable and was perceived as an expert. However, the leader failed to translate this expertise into an image of the future; the leader did not provide any guidance that was relevant to the subjects' work on the task.

Although both process and content components are important, it may be easier to hire an individual with an enthusiastic communication style and well-developed communication skills and then assist that person in developing a vision. Although the communication style is not as crucial as vision, it is nevertheless an important factor to consider when hiring for a leader position. The organization may want to consider the type of position when determining the communication skills that the leader will need. For example, a vice-president may need public speaking skills more than a group manager, who may need interpersonal and listening skills.

Fifth, the leader must affect goals and self-efficacy in order to affect performance. Although a leader could let followers spontaneously set goals, as was done in this dissertation, a leader may want to take more direct action

to ensure that goals are set and that followers have high self-efficacy. To affect goals, a leader could either (a) require that personal goals are set without specifying the content of the goal or (b) assign challenging goals to employees. To affect self-efficacy, the leader could engage in verbal persuasion, train employees in relevant skills, ensure that employees' have initial job successes, and serve as a role model for employees (Bandura, 1986). This would ensure that the leader would affect employees' performance. In fact, setting goals and building self-confidence is another way that leaders implement the vision (Locke et al., 1991). Organizations frequently set goals at several levels of the organization, but the leader should ensure that these goals are set and that they are congruent with the vision.

Future Research Directions

The above discussions point out several areas where future research is needed. Further examination of the relationships between charismatic leader actions, goals, performance, attitudes, and perceptions would be useful. It would also be useful to see if the present findings generalize to different types of visions as well as different (and different combinations of) implementation methods.

Additional variables warrant inclusion in future studies. The enthusiasm variable may play a more important role when absenteeism, turnover, leader-follower conflict, and citizenship behaviors are included. That is, positive, as compared to negative, attitudes and perceptions toward a leader may result in lower absenteeism, lower turnover, less conflict between the leader and followers, and an increase in citizenship behaviors or discretionary behavior that is not explicitly rewarded by the organization (Organ, 1988). In fact, Podsakoff, MacKenzie, Moorman, and Fetter (1990) found that transformational leadership behaviors indirectly affected citizenship behaviors displayed by followers through followers' trust in the leader.

Also, the effects of content and process over different, and especially longer, time periods, need to be examined. Different effects of content and process may emerge over the course of several years. The vision may have even stronger effects when communicated and implemented in many different ways. And, having a highly enthusiastic style may be needed to maintain followers' commitment to the vision over long periods of time.

Some specific future research projects are discussed below. First, research on the visioning process is needed. Field research is needed to address such issues

as how leaders initially come up with an idea for the vision, how they develop this vision into a meaningful and coherent idea that can be communicated to followers, how they get others to "buy into" the vision and deal with those who do not buy into the vision, and how leaders choose to implement the vision. Also, the qualitative literature suggests that visions can outlast the leader who developed the vision or can die with a leader. Also, visions can evolve slowly over time or can remain the same over time (Collins & Porras, 1991; Locke et al., 1991). Research is needed to examine the reasons why these effects may occur.

Second, other types of causal models need to be examined. One interesting model includes the nonrecursive effects of followers' performance, attitudes, and perceptions on subsequent leader actions. For example, high follower performance could increase both the leader's confidence in his/her ability to communicate and implement the vision as well as the followers' confidence in the leader and commitment to the vision. On the other hand, low follower performance may result in the leader and followers questioning the vision or implementation methods as well as lower follower commitment to the vision. A time-series model could be used to examine these relationships.

Third, future studies should attempt to train individuals to exhibit charismatic leadership behaviors. Although training programs can be used to teach almost any skill, it is possible that only those who are naturally expressive, such as actors, can benefit from training. It may be that while anyone can benefit from vision training, only some may benefit from communication style training. Pre-training and post-training observer ratings could measure an individual's level of perceived charisma when giving a speech and when interacting with followers and/or peers. Changes in follower performance could be measured.

Fourth, a related issue of interest is investigating the effects of vision and vision implementation at lower-levels of the organization. Leadership theories and research usually assume a top-down approach, however, this dissertation provides evidence that it may be possible to train leaders at all levels to exhibit charismatic leadership behaviors. Because today's organizations are becoming flatter and more decentralized, employees will have to rely more on informal and personal types of power rather than the formal authority granted by the organization. Vision and vision implementation could have important implications for work teams and, in general, lower-level employees.

Fifth, it would be interesting to examine the extent to which charismatic leadership is related to other types of leadership, including traditional approaches such as the behaviors of structuring and consideration (Yukl, 1989) as well as more recent approaches, such as self-leadership (Manz & Sims, 1989; Manz & Sims, 1991). Being considered a charismatic leader does not preclude the leader demonstrating structuring (task-oriented) behaviors or considerate (people-oriented) behaviors. In fact, these behaviors may be ways that a charismatic leader implements the vision. The self-leadership approach proposes that a "SuperLeader" shares power with followers, enabling them to become leaders themselves. Although some researchers view visionary leadership and SuperLeadership as distinct, mutually exclusive concepts (e.g. Manz & Sims, 1991), others view these concepts as compatible (Avolio & Bass, 1988). Although clarification of these concepts is needed at a theoretical level, the relationships between these various types of leadership should be examined empirically.

Sixth, the effects of charismatic leader actions on job attitudes could be examined, as suggested by the qualitative results. A future experimental study could manipulate vision (versus no vision) and measure the corresponding effects on followers' experienced task

meaningfulness. A correlational methodology could also be employed to examine this effect.

Conclusion

Overall, this dissertation suggests that although charisma is a complex phenomenon, is it not impossible to study it in a systematic manner. This dissertation advanced our knowledge of charismatic leadership. It is hoped that these findings will spark further research on this phenomenon.

References

Avolio, B.J. & Bass, B.M. (1988). Transformational leadership, charisma, and beyond. In J.G. Hunt, B.R. Baliga, H.P. Dachler, & C.A. Schrieshiem (Eds.), Emerging Leadership Vistas. Lexington, MA: Lexington Books.

Avolio, B.J. & Gibbons, T.C. (1988). Developing transformational leaders: A life-span approach. In J.A. Conger, R.N. Kanungo, & Associates, Charismatic Leadership. San Francisco: Jossey-Bass.

Avolio, B.J., & Waldman, D.A. & Einstein, W.O. (1988). Transformational leadership in a management simulation game. Group & Organization Studies, 13, 59-80.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.

Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51, 1173-1182.

Bass, B.M. & Avolio, B.J. (1989). Manual for the Multifactor Leadership Questionnaire Profile. Palo Alto, CA: Consulting Psychologists Press.

Bass, B.M. (1981). Stogdill's handbook of leadership (2nd edition). New York, NY: The Free Press.

Bass, B.M. (1985). Leadership and performance beyond expectations. New York, NY: The Free Press.

Bass, B.M. (1990). Handbook of leadership (3rd edition). New York, NY: The Free Press.

Beck, R.N. (1987). Visions, values, and strategies: Changing attitudes and culture. Academy of Management Executive, 1, 33-41.

Bennis, W. & Nanus, B. (1985). Leaders: The strategies for taking charge. New York: Harper & Row.

Berlew, D.E. (1974). Leadership and organizational excitement. California Management Review, 17(2), 21-30.

Bradford, D.L. & Cohen, A.R. (1984). Managing for excellence: The guide to developing high performance in contemporary organizations. New York: John Wiley & Sons.

Bradley, R.T. (1987). Charisma and social structure: A study of low and power, wholeness and transformation. New York: Paragon.

Burns, J.M. (1978). Leadership. New York, NY: Harper and Row.

Calder, B.J. (1977). An attribution theory of leadership. In B.M. Staw & G.R. Salancik (Eds.), New direction in organizational behavior. Chicago: St. Clair.

Campbell, D.J. (1991). Goals levels, complex tasks, and strategy development: A review and analysis. Human Performance, 4(1), 1-31.

Campbell, J.P. (1977). The cutting edge of leadership: An overview. In J.G. Hunt & L.L. Larson (eds.), Leadership: The cutting edge. USA: Southern Illinois University Press.

Cochran, W.G. & Cox, G.M. (1957). Experimental Designs, 2nd edition. New York: Wiley.

Cohen, J. (1977). Statistical power analysis for the behavioral sciences, Rev. ed. New York: Academic Press.

Collins, J.C. & Porras, J.I. (1991). Organizational vision and visionary organizations. California Management Review, 34(1), 30-52.

Conger, J.A. (1989). The charismatic leader. San Francisco: Jossey-Bass.

Conger, J.A. (1991). Inspiring others: The language of leadership. The Executive, 5, 31-45.

Conger, J.A. & Kanungo, R.N. (1987). Toward a behavioral theory of charismatic leadership in organizational

settings. Academy of Management Review, 12(4), 637-647.

Conger, J.A., Kanungo, R.N., and Associates. (1988). Charismatic leadership. San Francisco: Jossey-Bass.

Dow, T.E. Jr. (1969). The theory of charisma. Sociological Quarterly, 10, 306-318.

Earley, P.C. (1985). Influence of information, choice, and task complexity upon goal acceptance, performance, and personal goals. Journal of Applied Psychology, 70, 481-491.

Eden, D. (1990). Pygmalion in management. Lexington, MA: Lexington Books.

Edinger, J.A. & Patterson, M.L. (1983). Nonverbal involvement and social control. Psychological Bulletin, 93, 30-56.

Fleishman, E.A., Mumford, M.D., Zaccaro, S.J., Levin, K.Y., Korotkin, A.L., & Hein, M.B. (1991). Taxonomic efforts in the description of leadership behavior: A synthesis and functional interpretation. Leadership Quarterly, 2, 245-288.

Friedman, H.S., Prince, L.M., Riggio, R.E. & DiMatteo, M.R. (1980). Understanding and assessing nonverbal expressiveness: The affective communication test. Journal of Personality and Social Psychology, 39(2), 333-351.

Harrison, R. (1987). Harnessing personal energy: How companies can inspire employees. Organizational Dynamics, Autumn, 4-21.

Hackman, J.R., & Oldham, G.R. (1980). Work redesign. Reading, MA: Addison-Wesley.

Hater, J.J. & Bass, B.M. (1988). Superiors' evaluations and subordinates' perceptions of transformational and transactional leadership. Journal of Applied Psychology, 73(4), 695-702.

Hollenbeck, J.R., Klein, H.J., O'Leary, A.M., & Wright, P.M. (1988). An investigation of the construct validity of a self-report measure of goal commitment. Presented at the annual meeting of the Academy of Management.

House, R.J. (1977). A 1976 theory of charismatic leadership. In J.G. Hunt and L.L. Larson (Eds.). Leadership: The cutting edge. Carbondale, IL: Southern Illinois University Press.

House, R.J., Spangler, W.D., & Woycke, J. (1991). Personality and charisma in the U.S. Presidency: A Psychological Theory of Leader Effectiveness. University of Pennsylvania: Unpublished Manuscript.

House, R.J., Woycke, J., & Fodor, E.M. (1988). Charismatic and Noncharismatic Leaders: Differences in Behavior and Effectiveness. In J.A. Conger & R.N. Kanungo

(Eds.), Charismatic leadership. San Francisco: Jossey-Bass.

Howard, R. (1990). Values make the company: An interview with Robert Haas. Harvard Business Review, Sept-Oct, 133-144.

Howell, J.M. & Frost, P.J. (1989). A laboratory study of charismatic leadership. Organizational Behavior and Human Decision Processes, 43, 243-269.

Howell, J.M. & Higgins, C.A. (1990). Champions of technological innovation. Administrative Science Quarterly, 35, 317-341.

Jauch, L.R. & Glueck, W.F. (1988). Business policy and strategic management. New York: McGraw-Hill.

Judge, T.A. & Hulin, C.L. (in press). Job satisfaction as a reflection of disposition: A multiple source causal analysis. Organizational Behavior and Human Decision Processes.

Kenny, D.A. (1979). Correlation and causality. New York: Wiley.

Kotter, J.P. (1990). A force for change. New York: The Free Press.

Kouzes, J.M. & Posner, B.Z. (1987). The leadership challenge. San Francisco, CA: Jossey-Bass Publishers.

Locke, E.A. (1986). Generalizing from laboratory to field settings. Lexington, MA: Lexington Books.

Locke, E.A. (1991). The motivation sequence, the motivation hub, and the motivation core. Organizational Behavior and Human Decision Processes, 50, 288-299.

Locke, E.A., Kirkpatrick, S.A., Wheeler, J., Schneider, J., Niles, K., Goldstein, H., Welsh, K., & Chah, D. (1991). The essence of leadership. New York: Lexington Books.

Locke, E.A., Frederick, E., Lee, C., & Bobko, P. (1984). Effect of self-efficacy, goals, and task strategies on task performance. Journal of Applied Psychology, 69, 241-251.

Locke, E.A. & Latham, G.P. (1990). A theory of goal setting & task performance. Englewood Cliffs, NJ: Prentice Hall.

Manz, C.C. & Sims, H.P. Jr. (1989). Superleadership. New York: Berkley Books.

Manz, C.C. & Sims, H.P. Jr. (1991). Superleadership: Beyond the myth of heroic leadership. Organizational Dynamics, Spring, 18-35.

McClelland, D.C. (1985). Human motivation. Glenview: IL: Scott Foresman.

Mento, A.J., Locke, E.A., & Klein, H.J. (in press). The relationship of goal level to valence and instrumentality. Journal of Applied Psychology.

Organ, D.W. (1988). Organizational Citizenship Behavior. Lexington, MA: Lexington Books.

Podsakoff, P.M., MacKenzie, S.B., Moorman, R.H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. Leadership Quarterly, 1, 107-142.

Peters, T. (1987). Thriving on chaos. New York: Harper & Row.

Pfeffer, J. (1977). The ambiguity of leadership. Academy of Management Review, 2, 104-112.

Rosener, J.B. (1990). Ways women lead. Harvard Business Review, November-December, 119-125.

Rosenthal, R. & Rosnow, R.L. (1969). Artifacts in behavioral research. New York: Academic Press.

Sashkin, M. (1986). True vision in leadership. Training and Development Journal, May, 58-61.

Sashkin, M. (1988). The visionary leader. In J.A. Conger & R.N. Kanungo (Eds.), Charismatic Leadership. San Francisco: Jossey-Bass.

Sims, H.P. (1977). The leader as manager of reinforcement contingencies: An empirical example and a model. In J.G. Hunt and L.L. Larson (Eds.), Leadership: The cutting edge. Carbondale, IL: Southern Illinois University Press.

Smith, B.J. (1982). An initial test of a theory of charismatic leadership based on responses of subordinates. University of Toronto: Unpublished Doctoral Dissertation.

Tucker, R.C. (1968). The theory of charismatic leadership. Daedulus, 97, 731-756.

Tichy, N.M. & Devanna, M.A. (1986). The transformational leader. New York, NY: Wiley and Sons.

Uleman, J.S. (1991). Leadership ratings: Toward focusing more on specific behaviors. Leadership Quarterly, 2, 175-188.

Weber, M. (1947, originally published in 1924). The theory of social and economic organization. A.M. Henderson & T. Parsons, trans.; T. Parsons, Ed. New York: Free Press.

Webster's New Collegiate Dictionary. (1974). Springfield, MA: G&C Merriam Co.

Willner, A.R. (1984). The spellbinders: Charismatic political leadership. New Haven: Yale University Press.

Yukl, G.A. (1989). Leadership in organizations, 2nd edition. Englewood Cliffs, NJ: Prentice Hall.

Yukl, G.A. & Van Fleet, D.D. (1982). Cross-situational, multimethod research on military leader

effectiveness. Organizational Behavior and Human Performance, 30, 87-108.

Appendix A

Vision Script

At BKC, we make a pledge that our customers will receive high quality printing and binding. Let me explain my vision for BKC. This vision describes my long-term and ideal goals for BKC -- it is the direction we will be heading well into the next century.

From the first day of business, I have prided myself on the fact that BKC strives to give the customer a quality product. In the early days of the company when I had only a handful of employees, I would often help assemble the binders on large orders. One time we had completed an entire order when the customer called and told us that they had rewritten a set of pages. They needed us to insert the new pages right away. We were under a lot of pressure with other orders, so I explained to my employees that BKC is here to assemble quality products and that we will do whatever the customer wants. The customer was amazed that we made the changes so quickly and accurately.

In fact, just a few months ago, a large order of 30,000 binders was due to be shipped out one Friday afternoon. While packing the binders in boxes, a supervisor found that many of the binders had errors. Well, the supervisor got together with the binder employees and they decided that

they would work into the night and even come in over the weekend to fix the mistakes. They made sure that the binders "meant quality."

When BKC began to grow quickly, I realized that I needed a way to tell each employee that we are in business to produce top quality products. So, I developed the following company vision of where we are heading:

> **BKC Printing Company is in the business of providing both national and international binding and printing services. We pledge to our customers that every binding and printing job will be perfect. In order to have high quality products, we are constantly striving to develop new techniques and methods of delivering perfect binding and printing. We are on the road to providing the highest quality products through continual striving for improvement.**

To sum up in a vision statement, "BKC is bound to quality!"

Our competitors are located throughout the United States. You know, a couple of months ago, one of our main competitors, Decautur Printing - they are located near Fort Wayne, Indiana -- told me that they don't think we are good enough to compete with them. I know that we are. So, your performance during this experiment will be compared to the

performance of employees at Decautur Printing and at another competitor - Skyway Publishing in Colorado Springs.

I know that this task is pretty difficult, but I really think that you can do well. It has been my experience that business students like yourself pick up the task pretty quickly and are able to turn out the high quality binders that BKC is known for. We're counting on you and I think you'll do a <u>super</u> job. Just remember, "BKC is bound to quality!"

Appendix B

No Vision Script

About 80% of our jobs are printed on high-grade machine coated paper while the remainder are printed on high-grade, long-grain paper that is similar to what most people use in copy machines. Because our business revolves around paper, for the pages, and cardboard, for the binders, I would like to tell you a little bit about the process of making paper.

The process begins with trees. After bark is removed, logs are fed into a "chipper" which cuts the logs into wood chips. These chips are then ground up using water and an abrasive stone. Sometimes hot steam is used to soften the chips. Depending on the type of paper desired, a variety of other machines are used in conjunction with several types of chemicals in order to soften the chips. At this stage, the ground up chips are called mechanical pulp.

Next, the pulp undergoes mild chemical treatment, usually consisting of a sodium sulfite solution buffered with sodium carbonate. Sometimes a "no-sulfur" sodium ash is used instead. These chemicals are called the "cooking liquor." The pulp is cooked in the liquor under high temperatures and pressures. The cooking process eliminates the non-cellulose fibers from the wood components. The used liquor can serve as an ingredient for a variety of other

purposes, including tanning agents, linoleum adhesives, and a road paving material.

Next, the pulp is bleached to produce white fibers. The type of bleaching operation depends on several factors: the type of wood used to make the pulp, the pulping process, the degree of whiteness desired, and the purpose for which the paper will be used. For some pulps, a strong bleaching agent is required such as hydrogen peroxide. A newer technique uses a combination of chlorine and oxygen to bleach the pulp. Instead of bleaching the pulp all at once, there are usually several stages of bleaching.

After the bleaching is complete, the pulp fibers are washed to remove chemicals and impurities. They are then give a mechanical treatment called refining, which makes the fibers stronger. Rosin and alum are added to increase water resistance so that the paper is suitable for pen-and-ink writing. At this stage, pigments and dyes are added if colored paper is desired.

At this point, the fibers, which contain mostly water, travel through a machine at a very fast rate. The machine drains the water using suctioning devices as the fibers go through. The result is a wet web of paper that is carried on a conveyer belt to a pressing machine that smooths and dries the paper.

By now, the paper is over 20 feet wide and on large

rolls. If desired, coating materials are added which produce a smooth or special surface. It is ready to be cut to size and finished for shipment. The rolls are trimmed, sorted, counted, and packaged. The paper is then transported to the customer, in this case, BKC Printing.

Appendix C

Task Strategy Script

[Note: For the task strategy condition, this script followed either the vision or no vision script]

Before we start, our training department has developed work methods so that there are fewer errors. You might want to try some of these, or if you have any of your own ideas, you might want to use them -- it's up to you.

You may want to use the empty desks around you. Place the instructions somewhere you can refer to them quickly. Place the section dividers and pages on your right or on another desk in front of you, the binder you are working on in front of you, and place the other materials to your on another desk to your left.

Another helpful thing to do is to write out the order that the pages will go in - on a piece of scrap paper or on the back of a questionnaire, please do not write on the instructions or the answer key - and then insert these pages into the binder once you know the order of the pages for that section. If you write out the order for several sections at a time, be sure that you allow yourself enough time to gather and insert the pages.

Also, read the instructions carefully. Many of the

pages have similar titles, so be sure to take your time.

Let me give you a hint - do not to spread the pages out on the floor or desk - this takes too much time. Because the pages are in alphabetical order, we have found that people do better if they leave the pages stacked up, pulling the pages out as needed. Again, these are only suggestions - its up to you to decide whether to use them or not.

Does anyone have any questions?

Appendix D

Attitude and Perception Items

Task Satisfaction

In general, I was satisfied when doing the task.

I felt satisfied when assembling the binders.

I am generally satisfied when doing the task.

I did not feel satisfied during the task.

Congruence of Beliefs and Values

Quality is the most important aspect of this job.

Inserting as many pages as possible is more important than making sure there are no errors.

The CEO is too fanatical about having high quality binders.

The CEO has good reasons for being concerned about quality.

Trust in the Leader

I have complete trust in the CEO.

I do not believe what the CEO says.

The CEO is trustworthy.

I find it difficult to trust the CEO.

Liking the Leader

This CEO is a really likeable person.

The CEO seems like a terrific person.

I would have trouble getting along with the CEO.

I really don't like the CEO.

Charisma - Form 8[a]

The CEO served as a role model for me.

The CEO mobilized a collective sense of mission.

The CEO instilled pride in being associated with him.

The CEO engaged in words and deeds which enhanced his image of competence.

The CEO made me aware of strongly held values, ideals, and aspirations which are shared in common.

The CEO demonstrated a strong conviction in his beliefs and values.

The CEO projected a strong, dynamic, and magnetic presence.

I am ready to trust the CEO to overcome any obstacles.

I have complete confidence in the CEO.

In my mind, the CEO is a symbol of success and accomplishment.

Charisma - Form 5[a]

The CEO makes me feel good when I'm around him.

The CEO makes me proud to be associated with him.

The CEO is someone in whom I have complete faith.

[a] Form 8Y items are taken from Bass (1985). Form 5R items are copyrighted by B. Bass and B. Avolio. The survey from which the items are taken is licensed by Consulting Psychologists Press (CPP), Inc. and any reproduction or use of the survey and/or items must be approved by CPP.

The CEO has a special gift for seeing what is really worthwhile for me to consider.

The CEO has my respect.

The CEO shows enthusiasm for what I need to do.

The CEO has a sense of mission which he communicated to me.

The CEO increases my optimism for the future.

The CEO has my trust in his ability to overcome any obstacle.

Enthusiasm for Task

I couldn't wait to get started on this task.

I was not excited about doing this task.

I thought this task was really fun.

I was enthusiastic about doing this task.

Enthusiasm for Vision

I was enthusiastic about assembling high quality binders.

I was not excited about making sure each binder section had no errors.

I found that trying to make no errors was a lot of fun.

The idea of trying for few errors was really exciting.

Willingness To Work in Future

I would like to work for the CEO on another experiment in the future even if it meant getting paid minimum wage.

I would volunteer my time to participate in another experiment for the CEO.

I would NOT be willing to work for this CEO in a real job

in the future.

Even if the pay were 10% below average, I would like to work for the CEO in a future job.

Intellectual Stimulation

The CEO's ideas have forced me to rethink some of my own ideas about performing this task.

I felt I learned something from the CEO about doing the task.

The CEO provided me with new ideas about assembling the binder sections.

The CEO didn't give me any ideas about performing the task.

I didn't really learn anything from the CEO about assembling the binders.

Inspiration

The CEO motivated me to do better than I originally expected I would do.

The CEO aroused in me the effort to work better.

Because of the CEO, I did better than I expected I could do.

The CEO stimulated my efforts to excel.

The CEO heightened my motivation to succeed.

The CEO increased my optimism for the future.

Task Clarity

I knew exactly what to do on this task.

I was not very sure how to insert the pages.

I knew how I was supposed to insert the pages.

I was not clear about how the task was to be done.

Appendix E

Goal and Self-efficacy Items

Self-efficacy Magnitude - Quality

Below at the left are listed the number of errors that you might make when inserting the pages in the next 15 minutes. Indicate with a Y for "YES" or a N for "NO" whether you think you can make that many errors or less.

ERRORS	Y OR N
20 or less	___
18 or less	___
16 or less	___
14 or less	___
12 or less	___
10 or less	___
8 or less	___
6 or less	___
4 or less	___
2 or less	___
0	___

Self-efficacy Magnitude - Quantity

Below at the left are listed the number of pages that you might insert into the binder in the next 15 minutes. Indicate with a Y for "YES" or a N for "NO" whether you think you can complete that many pages or more.

HOW CONFIDENT ARE YOU?

PAGES	(0 TO 10)
0	___
5 or more	___
10 or more	___
15 or more	___
20 or more	___
25 or more	___
30 or more	___
35 or more	___
40 or more	___
45 or more	___
50 or more	___

Self-efficacy Strength - Quality

Indicate your degree of confidence in being able to make that number of errors or less on a scale of **0 (no confidence at all)** to **10 (complete confidence)** in the next 15 minutes. This is your confidence in making that number of errors or less.

HOW CONFIDENT ARE YOU?

ERRORS	(0 TO 10)
20 or less	___
18 or less	___
16 or less	___
14 or less	___
12 or less	___

10 or less ___

8 or less ___

6 or less ___

4 or less ___

2 or less ___

0 ___

Self-efficacy Strength - Quantity

Indicate your degree of confidence in being able to insert that number of pages or more on a scale of **0 (no confidence at all)** to **10 (complete confidence)** in the next 15 minutes. This is your confidence in completing that number of pages or more.

PAGES	HOW CONFIDENT ARE YOU? (0 TO 10)
0	___
5 or more	___
10 or more	___
15 or more	___
20 or more	___
25 or more	___
30 or more	___
35 or more	___
40 or more	___
45 or more	___
50 or more	___

Anticipated Satisfaction - Quality

Indicate the degree to which you anticipate being satisfied with each level of performance with respect to errors below.

IF YOU MADE THIS MANY ERRORS	ANTICIPATED SATISFACTION (1 TO 9)
20 or less	___
18 or less	___
16 or less	___
14 or less	___
12 or less	___
10 or less	___
8 or less	___
6 or less	___
4 or less	___
2 or less	___
0	___

Anticipated Satisfaction - Quantity

Indicate the degree to which you anticipate being satisfied with each level of performance with respect to number of pages inserted below.

IF YOU INSERTED THIS MANY PAGES	ANTICIPATED SATISFACTION (1 TO 9)
0	___
5 or more	___
10 or more	___
15 or more	___
20 or more	___
25 or more	___
30 or more	___
35 or more	___
40 or more	___
45 or more	___
50 or more	___

Personal Goal - Quality

What is the most number of errors that you would find acceptable to make **during the next 15 minutes**, that is your minimum goal for **quality**?

_____ errors

Goal Commitment - Quality

I am very enthusiastic about this quality goal.

I am strongly committed to pursuing this quality goal.

It wouldn't take much for me to abandon this quality goal.

It is quite likely that this quality goal may need to be revised, depending on how things go.

I think this quality goal is a good goal to shoot for.

Personal Goal - Quantity

What is the least number of pages that you would find acceptable to complete **during the next 15 minutes**, that is your minimum goal for **quantity**?

_____ pages inserted

Goal Commitment - Quantity

I think this quantity goal is a good goal to shoot for.

I am strongly committed to pursuing this quantity goal.

Quite frankly, I don't care if I achieve this quantity goal or not.

Since it is not always possible to tell how tough a task is until you've done it for awhile, it's hard to take this quantity goal seriously.

I am very enthusiastic about this quantity goal.