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TRANSFORMATIONAL AND TRANSACTIONAL LEADERSHIP: A TEST OF THE  
MODEL

Hoover, Nancy Roahrig, Ed.D.  
University of Louisville, 1987

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TRANSFORMATIONAL AND TRANSACTIONAL LEADERSHIP

A Test of the Model

By

Nancy Roahrig Hoover  
B.A., Butler University, 1966  
M.A., University of Louisville, 1976

A Dissertation  
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Louisville, Kentucky

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## ABSTRACT

In 1985, Bernard Bass proposed a new model of leadership, based on the work of James Burns, in which he described leaders as transformational or transactional. Bass theorized that there is a certain kind of leader who is capable of inspiring subordinates to heights they never intended to achieve. He referred to this leader as transformational. The transactional leader, on the other hand, is rooted in two-way influence: a social exchange in which the leader gives something and gets something in return. In his initial work, Bass identified three factors of transformational leadership (charisma, individualized consideration, and intellectual stimulation), and two factors of transactional leadership (contingent reward and management-by-exception). Later researchers divided management-by-exception into active and passive dimensions.

In this study, headmasters in private secondary schools in the southeastern United States were used as subjects in determining whether the model would emerge in a similar configuration to that found by Bass and others who used Army officers and supervisors in business as their subjects.

In a principal components factor analysis, the same transformational and transactional factors emerged from school population as had been found in Bass' original research. Although Factor 1, Charisma, was found to include more than simply "charisma"

items, suggesting that the concept should be reexamined. This finding was supported by two other factor analyses of the same instrument. A higher-order factor analysis produced transformational and transactional leadership as second-order factors. A comparison of this factor analysis with two others which had used supervisors in business rather than education found some differences in leader-subordinate relationships, but these differences did not affect the model as a whole.

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## CHAPTER I

### INTRODUCTION

Leadership theory has been in a state of ferment for decades. Proposed theories have been based upon the structure of the organization, the needs of the people who work within the organization, the environment in which the organization resides, or the particular situation in which the leader finds himself. Leaders have been classified as authoritarian or participative, task- or relationship-oriented, integrated or separated (Stogdill, 1974).

Often these theories of leadership provided a framework for examining how skillful a leader is at promoting change. Maybe the change was to more efficiency, to greater worker satisfaction, to greater productivity, to decreased conflict, or to some other goal desired by the organization. But it may be said that these leadership theories have generally judged the worth of a leader upon his ability to take the organization from Point A to Point B.

In his 1985 book called Leadership and Performance Beyond Expectations, Bernard Bass developed a new leadership theory based upon the work of James M. Burns (1978). Bass' theory centered upon higher-order change in both effort and performance of workers, while traditional theory centers on first-order changes. Bass theorized that there is a certain kind of leader who is capable of going beyond first-order change to higher-order change and who inspires people to



heights they never intended to achieve. He refers to this leader as transformational (Bass, 1985).

Description of the Transactional/Transformational Leadership Model of Bernard Bass

Hollander (1978) was the first to use the term "transactional leadership." He defined leadership as two-way influence: a social exchange in which both the leader and follower give something and get something in return (Hollander, 1978a). Transactional leadership has its basis in reinforcement theory, i.e., both parties agree to what is to be done in order to receive reward or to avoid punishment. The work to receive reward or avoid punishment system is a transaction. The transactional processes discussed in The One Minute Manager (1982) are a case in point: (1) Set goals; (2) Clarify performance standards; (3) Tell inexperienced workers what they did right and encourage more of it; (4) Tell experienced workers what they did wrong, but reassure their value as persons. The entire leader-worker relationship is based on a mutual system of reinforcement.

"The manager-by-exception" is also a transactional leader. As long as performance standards are met, the leader remains uninvolved. It is only when performance falls below an agreed upon minimum that the leader intervenes. The intervention is then often negative (Bass, 1985). Management-by-exception was defined by Bittel in 1964 as a system of identification and communication that signals the manager when his attention is needed: he remains silent when no attention is needed. This leadership approach was based upon the scientific management theory of Frederick Taylor (1911) and was designed to save executive time and focus highly-paid people on high-return work.

Bass contended that subordinate motivation to work cannot be accounted for by a simple exchange of material or psychological rewards for satisfactory service; while such an exchange is apparent, it does not account for a considerable portion of the relationship between leaders and subordinates. Therefore, he began to search for a broader view of leadership.

According to Maslow's (1954) theory of human motivation, people have a hierarchy of needs. In ascending order, they are physiological needs, safety needs, love needs, esteem needs, and the need for self-actualization. It is the contention of Bass that some leaders exist who motivate workers far beyond the lower levels of Maslow's hierarchy and into the levels of self-actualization. They are the leaders described by Zaleznik (1977) in his work which separates leaders from managers. According to Zaleznik, managers are impersonal, they limit options, they relate to people according to their organizational roles, and they depend upon their own roles for their identities. Leaders, on the other hand, are personal and active, projecting ideas into exciting images and developing options, they relate to others empathically and intuitively, and they feel separate enough from their environments to depend on a mastery of events for their identities. Bass says that the leadership literature has not dealt fully with this leader whose capacities cannot be explained by "carrot-and stick" formulations of exchange theory, calling such a leader "transformational."

Bass' transformational leader is not satisfied with the meeting of some minimum standard, which could become the maximum. Rather, the transformational leader is someone who motivates workers to go beyond organizational expectations of performance. This is achieved by (1)

raising the level of consciousness about the value and importance of outcomes; (2) by transcending one's self-interest for that of the sake of the group; or (3) by altering the need levels of the group members.

#### Purpose of the Study

The purpose of this study was to reproduce the Bass research, employing factor analysis and the five factors which comprised his model. The transactional factors included contingent reward and management-by-exception. The transformational factors included charisma, individualized consideration, and intellectual stimulation.

Further, this study provided a comparison of three factor analyses of his Multifactor Leadership Questionnaire, Form 5. These three factor analyses of the MLQ, Form 5, are unique to this study.

#### The Scope of This Investigation

In Leadership and Performance Beyond Expectations (1985) Bass described transformational and transactional leaders. In validating his model, he used the data from 104 military officers who had completed his Leadership Questionnaire describing their superiors to perform a principal components factor analysis. Five factors emerged. As stated above, transformational factors included charismatic leadership, individualized consideration, and intellectual stimulation. Transactional factors included contingent reward and management-by-exception. The total group was subjected to a higher-order factor analysis from which two factors emerged: active-proactive (taking steps when necessary) and passive-reactive (adoption of a "wait and see" attitude).

The research question central to this study was "Will the same transformational and transactional factors found among military leaders appear among secondary school headmasters?"

Coincidental with the present study, a new version of the Leadership Questionnaire had been developed and was in use by Bass and other researchers. By agreement with Bass, the new instrument, the Multifactor Leadership Questionnaire, Form 5, was used in this study. Two factor analyses using the instrument had already been performed (Hater & Bass, 1985; Seltzer, 1985), and these analyses were available for comparison with the present work. The subjects in the Hater and Bass study were supervisors in a corporation specializing in express delivery of goods and information while the Seltzer subjects were MBA students. An additional factor had arisen from these two factor analyses: management-by-exception emerged as a split factor, having been separated into active and passive domains. However, the research question concerning the emergence of similar factors with different populations was unaffected by this new information.

#### Importance of the Study

Bass model of transformational and transactional leadership presents a different approach to leadership theory. Yet his book is only an initial statement of this theory: much remains to be explored. The theory needs further research to test its supporting constructs. This study added to the work already begun and provided another test of the research previously performed by Bass and others, which has supported the basic structure of the model.

### Definition of Terms

Transformational leadership motivates followers to do more than they originally expected to do, by raising their level of awareness, by getting them to transcend their own self-interest, or by altering their need levels (Bass, 1985).

Transactional leadership recognizes what the follower needs and clarifies for the follower how these needs will be fulfilled in exchange for the follower's satisfactory effort and performance (Bass, 1985).

Charisma inspires in the followers unquestioning loyalty and devotion without regard to their own self-interest (Bass, 1985).

Individualized consideration is individualized attention and a developmental or mentoring orientation toward subordinates (Bass, 1985).

Intellectual stimulation is the arousal and change in followers of problem awareness and problem solving, of thought and imagination, and of beliefs and values (Bass, 1985).

Contingent reward is an agreement between the leader and follower on what the follower needs to do to be rewarded (Bass, 1985).

Active management-by-exception maintains a vigilance for mistakes or deviations and takes action if targets are not met (Hater & Bass, 1985).

Passive management-by-exception preserves the status quo and does not consider trying to make improvements as long as things are going along all right or according to earlier plans (Hater & Bass, 1985).

Factor analysis groups variables together because they behave in the same way and delineates new independent factors which may be responsible for the groups (Cattell, 1952).

Principal components factor analysis orders the factors found according to the amount of variance they define (Rummel, 1970).

Varimax rotation allows maximum difference between factors to be achieved, thus providing separate and unrelated factors (Rummel, 1970).

Oblique rotation measures a variable's direct relationship with each factor and the interaction between factors (Rummel, 1970).

Higher-order factors are groupings of factors into new factors (Cattell, 1952).

Factor scores are mathematical composites produced for each factor which can be used in subsequent analyses of the factor (Rummel, 1970).

### Hypothesis

This study is based upon the general hypotheses that the factors identified by Bass as transformational or transactional with a population composed of Army officers will be similarly identified with a population consisting of private secondary-school headmasters. Further, the additional factors identified by researchers using populations of (1) employees of an express delivery corporation and (2) MBA students will also emerge. The following research hypothesis will be tested: A factor analysis of the responses of subordinates of headmasters of private secondary schools will yield the three transformational factors of charismatic leadership, individualized consideration, and intellectual stimulation, and the transactional factors of contingent reward and management-by-exception, active and passive.

### Methodology

The study provided a factor analysis of responses of teachers in private secondary schools in the Southeastern United States. The

teachers responded to the Multifactor Leadership Questionnaire (MLQ), Form 5, which measures subordinate perceptions of transformational and transactional leadership. The questionnaires were administered and collected during the fall of 1986 and the spring of 1987.

Private school headmasters in the southeastern United States were identified with the help of the Southern Association of Independent Schools. A random selection of 100 headmasters were contacted and asked to participate in the study. The 45 who consented provided a list of faculty and staff, from which five subordinates were randomly identified and asked to complete the MLQ describing their headmaster or principal. Of the 225 questionnaires distributed, 151 were returned and were used in the factor analysis.

A principal components factor analysis was performed with varimax rotation. Examination of the emerging factors were interpreted to define underlying constructs. Since Factor 1 included loadings of items testing factors other than charisma, an internal consistency reliability analysis was performed to confirm the interpretation. A second principal components factor analysis was performed with oblique rotation to produce a correlation matrix. This matrix was subjected to varimax rotation to determine higher-order factors in order to compare them with those found by Bass and others. A correlation of satisfaction and effectiveness with the emergent factors was performed to provide a basis for comparison with Bass' original findings. Finally, this factor analysis of the MLQ, Form 5, was compared with two previous factor analyses to determine whether similar factors emerged with different populations.

## CHAPTER II

### A REVIEW OF THE LITERATURE

According to the definitive work on leadership, Stogdill's Handbook of Leadership (1974),

Four decades of research on leadership have produced a bewildering mass of findings . . . It is difficult to know what, if anything, has been convincingly demonstrated by replicated research. The endless accumulation of empirical data has not produced an integrated understanding of leadership." (p. vii).

Nevertheless, such a task must be undertaken in this review.

The purpose of this review is to provide a contextual structure from the leadership literature essential to the understanding of the transformational/transactional leadership model proposed by Bernard Bass (1985). First will be a discussion of major leadership models. According to Stogdill (1974), there are many trends of leadership theory, but those groups of theories can be distilled into some distinct categories. Four major models will be reviewed here: leader trait models, leader behavior models, situational models, and social learning theory models.

Following that discussion will be a presentation of the concepts of transformational leadership. Because Bass' transformational/transactional leadership model has already been discussed in Chapter 1, it will not be explained again here.



## An Overview of Major Leadership Models

### Leader Trait Models

Great Man theory. The earliest attempts to explain the success of one person's attempts to lead where another might fail were attributed to the traits of the person in the leadership role. It is easy to see why this happened, when sociological conditions are examined. The earliest leaders were wealthy men (and some women) who were leaders of nations (Stogdill, 1974). It only follows that these leaders must be bestowed by God with some inherent capacities for leadership. Why else would they hold such exalted positions? In 1936, Dowd wrote that the masses do not lead and they are always led by the superior few. Therefore, leadership skill must be attributable to a "great man" theory (Jennings, 1960). Leaders are born, not made. Such ideas are traceable to the ancient Greeks and Romans. Many famous figures in history were assumed to possess natural leadership abilities (Luthans, 1981). And, since leaders are endowed with these superior and unique qualities, it should be possible to identify those qualities and determine who is and is not a leader. So it can be seen that early leadership theories concentrated on the leaders themselves.

Trait theory. The idea that certain traits exist which will identify leaders characterized the early leadership literature and has persisted. Stogdill (1974) reported the results of 124 studies carried out between 1904 and 1947 which attempted to determine the traits and characteristics of leaders. He then performed a factor analysis to synthesize these extensive findings into some identifiable categories. He reported that the 43 traits culled from these studies can be classified under the headings of capacity, achievement, responsibility,

and status. A leader was shown to exceed his followers on all these dimensions.

Stogdill also reported the results of an additional 163 trait studies performed from 1948 to 1970. Once again, he concluded that leaders exceed their followers on certain dimensions. However, due to new theories regarding the structure of personality, these dimensions were now referred to as "personality traits."

Yet something interesting began to happen during these surveys of traits of leaders. Stogdill concluded in his summary of the 1904-1947 studies that, while the traits identified by the various studies had valid application to leadership theory, . . . "The qualities, characteristics, and skills required in a leader are determined to a large extent by the demands of the situation in which he is to function as a leader" (p. 52). In reporting the 1948-1970 studies he stated, "Assuming potentiality for leadership, an individual's upward mobility would seem to depend to a considerable degree upon his being at the right place at the right time" (p. 82). These statements indicated a shift in leadership theory which was taking place outside the trait theory literature and which will be reported later in this review.

#### Leader Behavior Models

Authoritarian-democratic-laissez faire leadership theory. In 1924, efficiency experts at the Hawthorne, Illinois, plant of the Western Electric Company designed a study which would consider the effects of illumination on productivity. This study had far-reaching effects upon the understanding of the way organizations function and focussed attention upon the human dimension of the workplace. Thus, the

human relations movement began to gain momentum (Hersey & Blanchard, 1969). What is now referred to as the "Hawthorne effect" was discovered: increases in productivity can be attributed to the fact that the subjects in the study were singled out for special treatment (Luthans, 1981). In his discussions of the Hawthorne plant experiments, Elton Mayo (1933) set forth what he called the "Rabble Hypothesis." As a result of the organization of American industries, managers believed that workers were composed of a mob of unorganized individuals whose only concerns were self-preservation, that workers were dominated by physiological needs and wanted to make as much money as they could for as little work as possible. It may be that the Rabble Hypothesis paved the way for the development of studies of authoritarian, democratic laissez faire leadership.

In 1939, Lewin, Lippitt and White studied the effects of authoritarian, democratic and laissez faire leadership on groups of boys. They found that the subjects overwhelmingly preferred their democratic leader to the other two. These studies were important because they represent the pioneering attempt to determine, by means of an experiment, what effect leader behavior has on a group (Luthans, 1981).

Another important contribution to the authoritarian-democratic-laissez faire theories was the work of Douglas McGregor: Theory X and Theory Y (1960). Theory X assumed that workers prefer to be directed, are uninterested in assuming responsibility, want safety above anything else, are motivated by money, fringe benefits, and threat of punishment. Therefore, Theory X managers structure, control, and closely supervise their employees. They rely on external controls. Theory Y, on the

other hand, assumed that workers can be self-directed and creative if they are properly motivated, that work is natural, and self-control is essential to achieving organizational goals. Theory Y managers attempt to help their employees mature by imposing less and less external control, allowing more self-control and self-determination.

'Argyris' immaturity-maturity continuum (1962, 1964) expanded upon the Theory X-Theory Y assumptions in a discussion of the effect of management practices upon individual behavior and personal growth. He stated that was the nature of the formal organization to block worker maturity because most organizational tasks are best accomplished collectively. Therefore, it was in the best interest of the organization to keep workers under a tight rein, not allowing worker maturity and autonomy. These basic incongruities between the best interest of the organization and the best interest of the worker can only be solved by a new structure of the work environment.

Ohio State leader behavior models. A large number of leadership studies have used questionnaires to elicit information which describes what leaders do. The influence of the researchers at Ohio State University during the 1940's has been far-reaching in this respect. The purpose of the Ohio State studies was to discover what leadership patterns led to effective group performance (Stogdill, 1974). The researcher began with 1800 examples of leader behavior and reduced those examples to 150 leader functions. A questionnaire was administered to civilian and military personnel to describe the behavior of their supervisors and then a factor analysis was performed (Halpin & Winer, 1957). The factor analysis produced two broad categories of leadership behavior: initiating structure and consideration. Initiating structure

included directing subordinates, clarifying subordinate roles, planning, coordinating, problem-solving, criticizing poor work, and pressuring for better performance. Consideration included leader supportiveness, friendliness, consideration, consultation with subordinates, representation of subordinate interest, open communication, and recognition of subordinate contributions. These two dimensions of leader behavior involved leader influence over the motivation and behavior of subordinates.

Several questionnaires were developed which described leadership behavior. The first was a 40-item questionnaire developed by Hemphill in 1950. Next came the Ideal LBDQ (Hemphill, Seigel, & Westie, 1951). These were followed by the SBDQ (Supervisory Behavior Description Questionnaire) of Fleishman (1953), which contained an addition of 20 items asking about the leader's structuring behavior and was intended to refine and extend the concept of initiating structure: the LOQ (Leadership Opinion Questionnaire), also by Fleishman (1957), which was designed to measure a leader's attitudes about the desirability of the two behavior categories; and Halpin's LBDQ (Leader Behavior Description Questionnaire) which arose from the 1957 factor analysis of Halpin and Winer. Finally, the LBDQ in use today was created by Stogdill, Goode, and Day in 1962. It added 10 scales to initiating structure and consideration, including representation, demand reconciliation, tolerance of uncertainty, persuasiveness, tolerance of freedom, role retention, predictive accuracy, production emphasis, integration, and influence with superiors.

While results of studies testing the relationship between leader behavior and subordinate satisfaction with the leader are mixed (Yukl,

1981), it is easy to see from an examination of the leadership literature the impact of the Ohio State studies. The two dimensions of initiating structure and consideration have influenced leadership literature until the present day. The literature is filled with theories which recognize the importance of both task orientation and relationship orientation. Secondly, extensive use of questionnaires which aid in describing leader behavior has persisted.

The Managerial Grid. The influence of the Ohio State studies can be seen in the Managerial Grid (Blake & Mouton, 1964). The Ohio State studies had identified four quadrants of leader behavior which were combinations of initiating structure (task behaviors) and consideration (relationship behavior): high consideration/low structure, high structure/high consideration, low structure/low consideration, high structure/low consideration. Blake and Mouton described five leadership styles based upon the four quadrants: impoverished (low C/low IS), country club (high C/low IS), task (high C/low IS), middle-of-the-road (center of the quadrants), and team (high C/high IS). Blake and Mouton stated that the most desirable leader behavior is "team," high on both initiating structure and consideration and they developed training programs designed to move leaders toward a 9-9 (team) style. Their development of the Managerial Grid and subsequent training programs effectively popularized the Ohio State studies and the two dimensions of leadership they identified (Hersey & Blanchard, 1969).

University of Michigan leadership models. Another set of leadership studies was being performed at about the same time as the Ohio State studies. The Survey Research Center at the University of

Michigan began studying productivity and satisfaction of members of work groups. The earliest study was done by Katz, Maccoby, and Morse (1950). They found that highly productive workers were frequently employee-centered rather than production-centered. Next, Katz, Maccoby, Gurin, and Floor (1951) studied railroad workers and found again that supervisors who were more employee-centered were more productive.

In 1966, Bowers and Seashore devised a theory designed to reconceptualize the early Michigan and Ohio State studies. Four categories of leadership behavior were proposed: support (enhances feelings of personal worth), interaction facilitation (encourages close, satisfying relationships), goal emphasis (stimulates excellent performance), and work facilitation (helps achieve goals). This model was the first to emphasize the need to measure subordinate leadership behavior as well as supervisory leadership behavior (Yukl, 1981). The four leadership factors could be performed by members of the group as well as by the leader.

This work led to New Patterns of Management by Rensis Likert (1961). Likert used Bowers and Seashore's four factors of leadership behavior to distinguish between autocratic and democratic leaders (Bass, 1981). He conceived of four systems of leadership style: exploitative autocratic, benevolent autocratic, consultative, and democratic. The autocratic systems (1 and 2) emphasize threats, fear and punishment, with the benevolent autocrat (2) emphasizing less negative and more positive reinforcement. Top-down communication was stressed; subordinates have little to say about goals or methods. The democratic systems (3 and 4) emphasized trust, open communications, and constructive use of subordinates ideas. Positive correlations with high

performance have been found in organizations using Systems 3 or 4, rather than 1 or 2 (Bass, 1981).

#### Situational Leadership Models

Fiedler's contingency model (1967). During the early 1950's at the University of Illinois, Fred Fiedler, like many other researchers in the field of leadership, was studying trait theory. His approach was slightly different from that of the Ohio State or Michigan groups, however. He was using an instrument he had devised called the LPC (Least Preferred Coworker). A person filling out the LPC was asked to think of all the people with whom he had worked and to focus on the one with whom he had the most difficult time: his least preferred coworker (Chemers & Rice, 1974). A low LPC score indicated that the worker had rated his coworker negatively on most of the items, saying that "if I cannot work with you, you are a bad person." A low LPC score denoted task accomplishment as a key in rating others. A high LPC score indicated that the worker had rated his coworker positively on most of the items, saying "although I cannot work with you, you are a good person in most respects." A high LPC score denoted an interest in interpersonal relations and other aspects of group activity.

After using the LPC with over 1,000 groups no strong patterns of relationship between LPC scores and group performance were discovered. It was not until Fiedler added a situational variable that a coherent pattern of results emerged (Chemers & Rice, 1974).

It may be remembered that Stogdill (1974), after both of his extensive reviews of trait theory literature, arrived at the same conclusion: the situation in which a leader finds himself has a great impact on the quality of his performance. It became obvious that the



trait approach fell short in explaining leader effectiveness. Although other research had been done of the importance of situational variables, Fiedler's model is the one which synthesized the situational approach to leadership (Luthans, 1981).

Fiedler identified three major variables which contribute to "situational favorableness:" (1) the interpersonal relations between the leader and his followers; (2) the degree to which the group's task is clearcut and unambiguous; and (3) the leader's ability to reward or punish the group members. Once these situational variables were identified, the nature of the relationship between the leader's LPC score and group productivity could be analyzed (Chemers & Rice, 1974). What Fiedler discovered was that under very unfavorable or very favorable situations, the best style of leadership was task-directed. Under somewhat favorable or unfavorable conditions, the best style of leadership was human relations-directed (Fiedler, 1967). Although continuing research on Fiedler's theory has not consistently supported it, such research does usually produce patterns which are consistent with the original predictions of the theory. It is safe to say that it has done more than any other to stimulate thought about the importance of situational variables (Schriesheim & Kerr, 1974).

Reddin's 3-D Theory of Leadership. Although Reddin's 3-D model builds upon the Managerial Grid, it can be considered a contingency model because Reddin proposed that the effectiveness of a leadership style can only be understood within the context of a situation (Reddin, 1970). This model differed from the Managerial Grid in that it added the dimension of leadership effectiveness. While the Managerial Grid is identified 9-9 style as the best, the 3-D model proposed that various

styles are most effective in various situations.

Reddin renamed the four quadrants of the Managerial Grid which are generated by the axes of relationship-oriented behavior and task-oriented behavior: related, integrated, separated, and dedicated. He then identified four effective leadership styles (executive, developer, benevolent autocrat, and bureaucrat) and four ineffective styles (compromiser, missionary, autocrat, and deserter). These styles were the negative and positive sides of the quadrants. The model incorporated trait theory, small group theory, and situational variables.

Life Cycle Theory of Leadership. An outgrowth of Reddin's 3-D model was the Life Cycle Theory of Leadership (Hersey & Blanchard, 1972). The theory was based upon the relationship between task behavior, relationship behavior, and maturity of the worker. As the level of maturity of workers increased, appropriate leader behavior required less task structure while consideration increases, but it also implied eventual decreases in relationship support as well. Thus, if workers progress from immaturity to maturity (Argyris, 1962), leader behavior should move through high task/high relationship, to high relationship/low task, and finally, to low task/low relationship. The situational variable in this theory was the maturity of the worker; the problem is that it ignores other situational variables (Yukl, 1981).

This theory is similar to Bass' transformational leadership model in that both describe a relationship between follower maturity and leader performance. Some differences in the two theories exist: (1) the Life Cycle Theory is clearly situational in nature, while the situational aspect of Bass' theory is less well-defined; (2) Life Cycle

Theory recommends less leader involvement with subordinates as their maturity increases, while Bass' theory is not clear on this issue. Regardless of these differences, Hersey and Blanchard's model does contain similarities to the transformational leadership model.

Path-goal theory. Path-goal theory was formulated in an effort to explain how leader behavior influences motivation and satisfaction of subordinates. The first version by Evans (1970) did not contain situational variables, but the next version (House, 1971) did. The theory was based on Vroom's expectancy theory (1964): a person is motivated to work by a combination of (1) the value (valence) of the outcome of the behavior he is considering, and (2) his expectation that his behavior will result in the outcome. The function of the leader is to provide subordinates with essential coaching, guidance, and performance incentives that are not otherwise provided by the organization. Dependent upon the situation, the pattern of leader behavior may increase satisfaction and lower motivation. In other situations, the same behavior may produce the opposite effect or increase both. The leader is relevant to rewards, clarity of the linkage between work and outcomes, the probability of achievement, intrinsic valence, and extrinsic valence. Leadership styles identified are directive, supportive, participative, and achievement-oriented. The leader uses one of the four styles in an attempt to motivate workers and increase their satisfaction and performance.

According to House and Mitchell (1974), directive leadership will increase worker effort when role ambiguity exists. Supportive leadership will increase effort when the work is unpleasant. Participative leadership will increase effort when task ambiguity

exists. Achievement-oriented leadership increases effort when tasks are ambiguous and non-repetitive. Research supporting these hypotheses is mixed. More support is found for the effects of leader behavior on subordinate satisfaction than for the hypothesis about the effects on performance (Yukl, 1981).

Vroom and Yetton Model of Decision Participation. The Vroom and Yetton model (1973) also recognized the importance of the situation in choice of leadership style. However, it attempted to provide a prescription for how leaders ought to act in certain situations, and therefore is much more normative than other situational models (Luthans, 1981). The model is based on an analysis of (1) how decision behavior affects decision acceptance (the degree of subordinate commitment to a decision) and decision quality (choice of the best possible alternative) and (2) leadership style, ranging from autocratic to consultative. Seven questions are asked. The answer to each question leads to another branch on the decision tree, culminating in the appropriate, situation-specific decision-making style. Current research generally supports the basic logic of the model (Yukl, 1981).

#### Social Exchange Theory

Social exchange theory is based upon the notion that the process of influence between leaders and groups is reciprocal. Leaders and followers influence each other; therefore, leadership is not a one-way concept, as had been implied by trait, leader behavior, and even most situational theorists. A leading proponent of leadership as a social exchange is Edwin Hollander (1978). According to Hollander, leadership is composed of three elements: the leader, the follower, and the situation. None of the three is self-sufficient. Trust and a

perception of fairness are important. The leader gives direction to the group, defines its reality, and sets its goals thereby defining its roles. But the psychological contract for the group is dependent upon group expectations, and depends upon the process of negotiation. The balance of the group and its success depends upon a process of exchange where the leader gives something and gets something in return. Research seems to verify Hollander's position by suggesting that subordinates affect leaders as much as leaders affect subordinates (Luthans, 1981).

#### Social Learning Theory

Somewhat similar to social exchange theory is the leadership model of Davis and Luthans (1980), based on Bandura's (1977) social learning theory. Bandura argued that learning is facilitated if models are provided in advance of a specific action and its consequences. If the consequences are positive, the act will be repeated. If the consequences are negative, the act will not be repeated. Davis and Luthans proposed an S-O-B-C (situation-organism-behavior-consequence) model in which the leaders and subordinates concentrate both on their own and the other's behaviors, the situation, and the consequences of those behaviors. The process is an interactive and reciprocal one through which leaders and subordinates observe and influence each other. Rather than being prescriptive in nature, this model attempted to explain how leadership works, taking into account all the variables (Luthans, 1981).

#### Transformational Leadership

During the late 1970's and 1980's, writers in the fields of organizational theory and leadership began recognizing the need for paradigm shifts (Kuhn, 1962) in organizational structures and in

leadership behaviors. In Men and Women of the Corporation (1977) and again in The Change Masters (1983), Rosabeth Moss Kanter called for a thoroughgoing revision of present organizational practices, including developing new strategies and redesigning the hierarchies and the ways in which members of organizations relate to one another. Michael Maccoby (1981) argued that unless gamesmen's (leaders') traits are transformed, they will become liabilities in times of new economic and organizational realities. In 1981, Alvin Toffler described the forces which are reshaping the modern organization. They included population increases, an increasingly organized social environment, a geometrically expanding transfer of information, increasingly complex political systems and organizations, and heightened moral pressures. He warned that organizations would need new ways of structuring and managing themselves: they would need to be transformed. And, according to Tichy and Devanna (1986), transforming organizations requires new vision, and new frameworks for strategies, structures, and people.

In his 1978 book called Leadership, James McGregor Burns was the first to define transformational leadership. He said that the transformational leader

. . . recognizes and exploits an existing need or demand of a potential follower. But, beyond that, the transforming leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower. The result of transforming leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents (p. 4).

This definition has been expanded upon and used by several theorists in the transformational leadership literature, including Bass (1985), Peters & Waterman (1982), Bennis & Nanus (1985), and Tichy & Devanna, (1986).

McCall (1977) warned that we should not always be looking at the observable, short-term relationships between leader and follower. By so doing, we ignore the more important aspects of leadership. Rather, we should be studying "leading-edge leadership" (Mueller, 1980): leaders who initiate structure in group expectations and show us how we can master and motivate institutions and individuals within complex environments experiencing excessive internal and external stresses and changes. Such leaders are charismatic, intuitive, and logical. Transformational leadership is a "challenge to continue the learning process and humanize our . . . organizations and contribute to the quality of life for both people and communities" (Clatworthy, 1982, p. 6).

The situational nature of transformational leadership was noted by Bennis and Nanus (1985), Tichy and Devanna (1986), and Bass (1986). These authors pointed out that transformational leadership is much more likely to occur during times of organizational stress and change than during times of peace and prosperity. According to Bennis (1983), transformational leaders are essential for organizations, especially when they are undergoing times of uncertainty. Vaill (1984), in a discussion of high-performing systems, emphasized the need for "paradigm" leadership, asserting that leaders "cause" high-performing systems. They bring about high performance through purposing: purposing leaders set expectations, articulate the grounds for decisions, put in quality time, make decisions not to do something, promote organizational identity, want something for the system, and embody institutional purpose.

Transformational leadership serves as a springboard for

pluralistic policy (Bleedorn, 1983). It is collective, dissensual, causative, morally purposeful, and elevating. It involves leadership that "reframes" solutions: using techniques that either force or enable participants to go beyond their current framework, have new perspectives, and choose new perspectives (Levy & Merry, 1986). It can provide new vision, communicate the vision, align members to it, and institutionalize the vision.

Harris (1985) lists attitudes and styles of transformational leaders. They are dynamic-flexible, anticipative-future-oriented, long-term-oriented, quality-service-oriented, individual-team-oriented, cooperative-facilitative, vanguard thinkers, initiative-autonomy-oriented, conceptualizers-synthesizers, environmentally sensitive, and interested in self-development and actualization. After identifying and studying 13 transformational leaders in corporate settings, Tichy and Devanna (1986) also discussed characteristics of transformational leaders: they identify themselves as change agents, are courageous, believe in people, are value-driven, are life-long learners, are visionary and can deal with complexity, ambiguity, and uncertainty.

The importance of the transformational leader to the culture of the organization has been noted by several writers (Bass, 1985; Tichy & Devanna, 1986; Peters & Waterman, 1982; Vaill, 1984). Bennis (1984) discussed the three components of transformative power: the leader, the intention, and the organization. The leader possesses certain competencies. First, he must have vision--the capacity to create and communicate context. He must have the skill of communication and alignment--communication to gain support for the context. He must be persistent and consistent in order to focus the maintenance of



direction. He must have the capacity to create an environment to get results. And he must have the capacity to find and use monitoring systems for improvement of the organization. The second component of transformative power is intention--the vision to move to a new place. Intention is characterized by simplicity, completeness, workability, and communicability. Finally, the organization becomes a blend of each individual's uniqueness into collective action. Thus, the organization is transformed--a new culture is obtained.

Bennis (1984) summed up the transformational leadership literature when he said:

. . . the transformative power of leadership stems less from ingeniously crafted organizational structures, carefully constructed management designs and controls, elegantly rationalized planning formats, or skillfully articulated leadership tactics. Rather, it is the ability of the leader to reach the souls of others in a fashion which raises human consciousness, builds meanings, and inspires human intent that is the source of power. Within transformative leadership, therefore, it is vision, purposes, beliefs, and other aspects of organizational culture that are of prime importance. Symbolic expression becomes the major tool of leadership, and leadership effectiveness is no longer defined as a '9-9 grid score' or a 'system 4' position. Effectiveness is instead measured by the extent to which 'compelling vision' empowers others to excel: the extent to which meanings are found in one's work; and the extent to which individual and organization are bonded together by common commitment in a mutually rewarding symbiotic relationship (pp. 70-71).

It is into this conceptual framework that the transformational/transactional leadership model of Bernard Bass can be placed.

## CHAPTER III

### METHODOLOGY

#### Population

The leadership subjects in question for this study were headmasters or principals of private secondary schools in the southeastern United States. All schools identified were members of the Southeastern Association of Independent Schools (SAIS). States where SAIS member schools are located include Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. A random selection of 100 schools was made from the SAIS membership directory. This step produced a list which included member schools from each SAIS state except Kentucky. From a list of teachers and staff supplied by schools which agreed to participate, a random selection of five subordinates was made who then were asked to complete the Multifactor Leadership Questionnaire (MLQ), Form 5. Of the 45 schools from which personnel responded, 29% were from Georgia, 15% were from Tennessee, 13% were from Florida, 8% were from Alabama, 7% were from South Carolina, 3% were from each of Virginia and Texas, and 2% were from North Carolina. Sixteen percent of the schools included in the study were parochial.

#### Instrumentation

The instrument used in the study was the Bass Multifactor Leadership Questionnaire, Form 5. The earliest form of this instrument

was based on a survey of executives who described transformational and transactional leaders.

### Procedures

During Fall, 1986, and Spring, 1987, questionnaires were distributed and collected from staff and faculty members of the 45 schools which had agreed to participate. After the initial mailing resulted in only a 46% return rate, a follow-up postcard was sent as a reminder. This step produced an additional 21% return, for a total response rate of 67% (151 questionnaires). Of the 45 participating schools, at least one response was received from each of them, with the exception of one school from which no response was received.

### Hypothesis

The following hypothesis was tested: A factor analysis of the responses of subordinates of headmasters of private secondary schools who complete the Multifactor Leadership Questionnaire, Form 5, will yield the three transformational factors of charisma, individualized consideration, and intellectual stimulation, and the transactional factors of contingent reward and management-by-exception, active and passive.

### Data Analysis

A principal components factor analysis with varimax rotation was performed to yield the independent factors. Such an analysis, in addition to grouping variables because they behave in the same way and delineating new factors responsible for the groupings, orders the factors found in terms of the amount of variance they define. Varimax rotation produces factors which are independent of one another. An internal consistency reliability test was performed to substantiate the

findings of the factor analysis.

A second principal components factor analysis with oblique rotation was performed to allow a higher-order factor analysis. The correlation matrix produced by the oblique rotation produced first-order factor loadings that were subjected to varimax rotation in order to produce higher-order factors.

Indexes of perceived satisfaction and leader effectiveness were correlated with factor scores (mathematical composites of each factor) to determine the relationship between the factors and effectiveness and satisfaction.

A comparison of the factor analysis produced by this study was made with two other factor analyses of the same instrument in order to discover whether similar factors had been produced when different populations were tested.

## CHAPTER IV

### DATA ANALYSIS

#### Introduction

The purpose of this study was to determine whether the factors of transformational and transactional leadership as identified by Bernard Bass (1985) and others (Hater & Bass, 1985; Seltzer, 1985) would reoccur in populations different from theirs. Bass' population had consisted of Army officers; Hater & Bass's subjects were employees of a corporation specializing in express delivery of goods and information; Seltzer's respondents were students in an MBA program.

Because this research reproduced Bass' design, several procedures identical to his were performed. A principal components factor analysis groups variables together because they behave in the same way and delineates new factors responsible for the groupings, but it also orders the factors found in terms of the amount of variance they define. Thus, factors accounting for trivial amounts of variance can be ignored in subsequent analyses of the factors. Varimax rotation such as Bass used in his original research produces factors which are independent of one another. In order to perform a principal components factor analysis on the Multifactor Leadership Questionnaire (MLQ), Form 5, staff members in private secondary schools in the southeastern United States were asked to complete the MLQ, describing their headmaster's leadership behaviors. These responses were factor analyzed and subjected to varimax rotation.

The reliability of the loadings on Factor 1 was tested. This step, recommended by Bentler (1976), was performed in order to independently validate the existence of Factor 1, charisma.

To determine the correlations between factors which emerged in the principal components factor analysis, factor scores were computed. Factor scores are mathematical composites of each factor which can be used in any subsequent analysis of the factor. These scores were then correlated with the nominal dimensions of subordinates' perceived satisfaction with the leader and the leader's effectiveness.

A higher-order factor analysis designed to reveal relationships among the factors themselves which can then be described as new factors, was performed to determine whether transformational and transactional leadership emerged. A principal components analysis with oblique rotation was performed. The resulting, first-order factor loadings were subjected to a varimax rotation which produced the higher- or second-order factors.

A comparison of this factor analysis with two other analyses of the MLQ, Form 5, was completed. The analysis was done visually rather than statistically because a statistical comparison was beyond the scope of this study. The purpose of the comparison was to determine whether similar factors emerged when the subjects were taken from different populations. A statistical comparison of the three analyses would have required compilation and analysis of all the data from all three studies.

#### Principal Components Factor Analysis

A total of 70 MLQ variables (items) from each of 151 respondents was subjected to a principal components factor analysis. The

respondents were teachers in private secondary schools located in the southeastern United States. They completed the questionnaire which asks for responses describing the leadership behavior of their supervisors. In this case, the supervisor in question was the headmaster or principal of the school in which the respondent teaches. Because there were 45 participating schools and 151 respondents, some supervisors (headmasters) may have been described by more than one respondent.

There is no consensus on the number of cases (respondents) necessary to complete a viable factor analysis. Cattell (1952) suggests a 4-to-1 ratio i.e., 40 cases for 10 variables. Bass (1985) discusses the need for a 6-to-1 ratio. Gorsuch (1974) states it simply: the more the better. Rummel (1970) says that this question is a matter of research taste and until some ratio is clearly defined, two rules should apply: (1) the number of cases must exceed the number of variables, and (2) the ratio of cases to variables should be as large as is practical. Therefore, a decision was made that the ratio of cases to variables in this study, 2-to-1, was acceptable.

The principal components factor analysis yielded 16 factors with an eigenvalue greater than the standard value of 1.00 (Kaiser, 1960). An eigenvalue is the total variance explained by each factor (Kim & Mueller, 1978). However, the later factors had only one or two items loading on them and thus can be ignored (Gorsuch, 1974; Rummel, 1970). In addition, the two factor analyses with which this one was compared had used rotations of 12 factors. Therefore, the varimax rotation was performed with 12 factors which accounted for 65.9% of the variance. Table 1 shows the rotated factor matrix of 12 factors and 70 items.

Table 1

Varimax Rotated Factor Matrix

Item	Factor											
	1	2	3	4	5	6	7	8	9	10	11	12
1	.53	.57	-.08	-.00	.05	-.09	.02	-.00	-.15	-.10	.23	.15
2	.29	.29	-.08	.20	-.10	.01	.10	.07	-.18	.07	.61	.01
3	.37	.69	.00	-.14	-.02	-.01	-.01	.10	-.14	.07	.11	.14
4	.07	.07	.07	.10	.14	.03	-.13	.02	.12	.01	.71	.02
5	.42	.24	.15	.09	-.22	.12	.41	.12	.04	-.15	-.05	.07
6	.28	.22	.06	.16	-.29	.14	.33	.06	.14	.17	-.13	.36
7	-.17	-.02	-.06	.10	.38	.13	.26	-.09	.05	.55	-.08	-.02
8	.22	.59	.30	.04	.06	-.02	.15	.15	.12	.02	.19	-.06
9	.12	.32	-.01	.23	.00	.12	.23	.62	-.05	.07	.01	-.01
10	.67	.49	.11	-.03	.03	-.10	-.02	.10	-.19	.01	.08	.02
11	.43	.14	.30	.18	.04	-.09	-.03	.19	-.17	.28	.08	-.10
12	.48	.33	.21	.03	-.09	-.09	.32	.15	.01	-.32	-.00	-.01
13	.69	.36	.12	-.03	-.03	-.02	-.02	-.05	-.18	-.06	.15	.04
14	.34	-.07	.13	.06	.06	.05	.63	.06	-.04	.13	-.11	-.00
15	.36	.74	.02	.18	-.07	-.09	.16	-.01	-.04	-.02	-.02	-.04
16	.38	.69	.06	-.01	.01	-.03	-.12	.10	-.00	.11	.12	-.11
17	-.01	.14	.02	-.02	.74	-.04	-.05	-.15	-.16	-.07	.21	-.03
18	-.06	-.23	-.05	.20	.07	.18	-.06	-.10	.23	.01	.09	.63
19	.33	.36	.21	.09	-.14	-.13	.48	.14	.09	-.08	.08	-.24
20	.03	.15	.08	.66	.21	.03	.29	.19	.13	.03	.02	.11

(table continues)



Item	Factor											
	1	2	3	4	5	6	7	8	9	10	11	12
21	.59	.47	.20	.02	-.07	-.02	.21	.17	.03	-.18	.07	-.14
22	.17	.30	.18	.23	-.03	.01	.01	.67	.02	-.13	.11	-.15
23	.01	-.16	.06	.25	.59	.05	-.06	.02	-.04	.29	.25	-.07
24	.48	-.13	.32	.02	.06	.10	.33	.29	.10	-.09	-.01	.10
25	.37	.45	.22	.27	-.03	-.19	.09	.05	-.07	-.15	.14	.03
26	.78	.27	.09	.08	-.10	-.08	-.00	-.00	-.03	-.07	.04	-.04
27	.44	.64	.01	.18	-.08	-.13	.04	.07	.05	-.14	.05	-.15
28	.75	.39	.06	.05	-.06	-.04	.01	-.10	-.21	-.04	.12	-.10
29	.70	.38	.11	.17	-.06	-.15	.09	.18	.01	-.02	.01	.02
30	-.64	-.14	.07	-.09	.29	.02	.01	.20	.14	-.15	.05	.29
31	.80	.16	.07	-.03	.01	.02	.19	.10	.02	-.03	.07	.05
32	.76	.33	.17	-.03	.05	-.12	.03	.22	-.07	.06	.04	.07
33	.77	.27	.19	-.03	-.04	.01	.12	.14	-.01	.00	.04	.12
34	-.08	-.02	-.09	.05	.77	.04	.12	.23	.10	.06	-.09	.12
35	.47	.25	.22	.09	.01	.11	.37	.12	.17	-.29	.03	.17
36	.52	.40	.23	.15	-.17	.06	.26	.06	.05	.07	-.08	.15
37	.07	-.19	.22	.08	.37	-.20	-.22	-.06	.31	.31	.27	.02
38	.45	.27	.22	.21	-.10	.35	-.01	-.04	.15	.01	-.04	-.41
39	.51	.17	.53	.06	-.04	.03	.03	.02	.09	-.07	.11	-.13
40	.69	.40	.29	.08	-.14	.01	.08	.04	-.14	-.04	-.01	-.01
41	-.05	-.22	.02	.32	.34	-.03	-.17	-.14	.16	.43	.13	.09

(table continues)

Item	Factor											
	1	2	3	4	5	6	7	8	9	10	11	12
42	.10	.25	.15	.73	-.02	-.08	.01	.04	.02	-.07	.10	.11
43	-.15	-.10	.07	.01	.16	.74	-.03	.06	.13	.06	-.14	.30
44	.21	.13	.66	.05	-.08	.08	.19	-.07	-.05	.07	-.01	-.03
45	.40	.09	.31	.08	.01	-.09	.24	.09	-.16	-.03	-.14	.41
46	-.49	-.01	-.03	.01	.14	-.01	-.12	-.08	.01	.28	.07	.26
47	.05	-.02	.09	.71	.03	.14	.01	.11	-.02	.27	.08	-.07
48	.30	.66	.10	-.06	-.11	.23	-.02	.17	-.19	-.07	-.16	-.02
49	-.28	-.10	-.16	.10	.66	.04	-.07	-.01	.10	.15	-.27	.05
50	.74	.16	.18	.12	-.03	.15	.08	.03	-.11	-.03	.01	-.06
51	.76	.22	.26	.13	-.07	.05	.19	.19	-.15	.05	.10	-.00
52	-.27	-.13	-.18	.08	-.01	.13	.06	-.07	.75	.02	.07	.19
53	.23	-.12	-.16	.52	.09	.32	-.08	.33	-.02	-.10	.01	.10
54	.49	.42	.29	-.00	.03	.08	.00	-.06	-.22	-.25	.20	-.02
55	.39	.10	.35	.09	-.15	.47	-.18	.08	.20	.10	.04	-.13
56	.47	.20	.44	.08	.16	.09	.02	.14	-.19	-.02	.12	.03
57	.67	.48	.30	.05	-.04	-.02	.17	.14	-.05	-.01	.03	-.03
58	-.42	-.11	-.01	-.04	.02	.08	.02	.11	.68	.05	-.05	-.01
59	.17	.04	-.10	.41	.24	.34	.03	.44	.10	-.19	-.11	.18
60	.52	.47	.25	.07	.02	.09	.08	-.06	-.14	-.16	.17	-.04
61	-.20	-.11	-.03	.03	-.05	.74	.16	.07	.03	.03	.16	-.07

(table continues)

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Factor												
Item	1	2	3	4	5	6	7	8	9	10	11	12
62	.43	.09	.63	.15	-.01	.01	-.00	.14	-.07	-.10	.03	.05
63	.41	.33	.33	-.01	-.13	.03	-.36	.17	.01	-.01	-.22	.03
64	-.16	.05	.08	.44	.32	-.14	.04	-.35	-.24	-.09	.29	-.01
65	.23	.58	.11	.37	.02	-.16	.07	-.02	-.05	-.20	.05	-.23
66	.37	.61	.21	.08	.03	.17	-.14	.06	-.12	-.12	-.11	-.12
67	.30	.21	.26	.19	-.05	.39	-.01	-.01	-.13	-.31	-.01	-.12
68	.51	.23	.53	.03	-.07	.01	.21	-.11	-.17	-.07	-.02	.13
69	.53	.43	.35	.10	-.13	-.09	.08	.08	-.03	-.14	-.11	-.04
70	-.55	-.16	-.05	-.18	.10	.07	.10	.26	.05	.36	.16	.05

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When the loadings were examined for the purpose of defining factors, salient variables were defined as ones which obtained a loading of greater than or equal to .30 (Gorsuch, 1974). Therefore, loadings less than .30 were ignored.

An examination of the rotated factor loadings revealed the emergence of six factors. Factors with three or fewer items loading on them were dropped (Kim & Mueller, 1978).

Factor 1 - Charismatic leadership. Items identified by Bass (Hater & Bass, 1985) as measuring charismatic leadership behavior loaded highly (Cattell, 1952) on this factor, as shown in Table 2. Loadings included in this table were those which were above .59. Factor 1 accounted for 33.1% of the variance. An examination of the items in

Table 2 showed that this factor could be characterized by the term "charisma."

Table 2

Factor 1 - Charisma

Loading on Factor 1	Item #	Item
.80	31	Has a sense of mission which he/she transmits to me
.77	33	I am ready to trust him/her to overcome any obstacle
.77	26	In my mind, he/she is a symbol of success and accomplishment
.76	32	Increases my optimism for the future
.76	51	We go faster, higher and farther in reading objectives because of him/her
.75	28	Has my respect
.70	29	Makes me enthusiastic about assignments
.69	13	I have complete faith in him/her
.67	10	Makes me proud to be associated with him/her
.59	21	Has special gift of seeing what it is that is really important for me to consider

Other items measuring intellectual stimulation also loaded on this factor; however, only one of those items, 50, "gets to the heart of complex problems quickly," loaded above .50. Therefore, this factor may not be considered to be highly characterized by these variables (Cattell, 1952; Nunnally, 1967). The same was true for several items

measuring inspirational leadership and extra effort which also loaded on this factor. Due to the presence of these extra items, however, an additional analysis of Factor 1 was subsequently performed and will be described in a later section.

Factor 2 - Individualized consideration. Items identified by Bass (Bass & Bass, 1985) as measuring individualized consideration loaded highly on this factor, as shown in Table 3. Loadings included in this table included ones above .45. Factor 2 accounted for 6.6% of the variance. Items loading highly on this factor were characterized by individual attention to subordinates.

Table 3

Factor 2 - Individualized Consideration

Loading on Factor 2	Item #	Item
.74	15	Lets me know how well I am doing
.69	3	Gives personal attention to subordinates who seem neglected
.69	16	Treats each subordinate as an individual
.66	48	Spends a lot of time coaching each individual subordinate who needs it
.64	27	I can count on him/her to express appreciation when I do a good job
.60	66	Gives newcomers a lot of help
.59	8	Delegates responsibilities to me to provide me with learning opportunities
.45	25	Finds out what I want and helps me to get it

Factor 3 - Intellectual stimulation. Items identified by Bass (Hater & Bass, 1985) as measuring intellectual stimulation loaded highly on this factor, as shown in Table 4. Loadings included in this table were ones which were above .53. Factor 3 accounted for 4.9% of the variance, and was clearly made up of items which involve intellectual leadership.

Table 4

Factor 3 - Intellectual Stimulation

Loading on Factor 3	Item #	Item
.66	44	Requires that I back up my opinions with good reasoning
.63	62	Makes sure that I think through what is involved before taking actions
.53	39	Stresses the use of intelligence to overcome obstacles
.53	68	Gets me to use reasoning and evidence rather than unsupported opinion

Factor 4 - Contingent reward. Items identified by Bass (Hater & Bass, 1985) as measuring contingent reward behaviors loaded highly on this factor, shown in Table 5. Loadings included in this table were those above .52. Factor 4 accounted for 3.7% of the variance. Items which loaded highly on this factor were recognized as similar to those described in Blanchard and Johnson's The One Minute Manager.

Table 5

Factor 4 - Contigent Reward


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Loading on Factor 4	Item #	Item
.73	42	Arranges that I get what I want in exchange for my efforts
.72	47	I can get what I want if I work as agreed with him/her
.66	20	Gives me what I want in exchange for my showing support for him/her
.52	53	I have an agreement with him/her about what I will get for doing what need to be done

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Factor 5 - Passive management-by-exception. Items identified by Bass (Hater & Bass, 1985) as measuring passive management-by-exception loaded highly on this factor, as shown in Table 6. Loadings included in this table were those above .59. Factor 5 accounted for 2.9% of the variance. Items loaded highly on this factor described leaders who wait for a failure before any action is taken.

Table 6

Factor 5 - Management-By-Exception (Passive)


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Loading on Factor 5	Item #	Item
.77	34	Shows he/she is a firm believer in "if it ain't broken, don't fix it"
.74	17	Does not try to change anything as long as things are going alright
.65	49	As long as things are going according to earlier plans, he/she does not consider trying to make improvements
.59	23	Is satisfied with my performance as long as the old ways work

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Factor 6 - Active management-by-exception. Items identified by Bass (Hater & Bass, 1985) as measuring active management-by-exception loaded highly on this factor, as shown in Table 7. Loadings included in this table were those above. 47. Factor 6 accounted for 2.7% of the variance. This factor was characterized by items which described leaders who actively seek irregularities for corrective action.



Table 7

Factor 6 - Management-By-Exception (Active)

Loading on Factor 6	Item #	Item
.74	61	Concentrates his/her attention on failures to meet quality or standards
.74	43	Focuses attention on irregularities, mistakes, exceptions and deviations from what is expected of me
.47	55	Takes corrective action if I make mistakes

Extra effort and inspiration. Several additional items had been identified as measuring extra effort and inspiration. Extra effort items did not cluster on one factor but were scattered, not allowing for a clear correlation of these items, either with each other, or with given factors.

Items measuring inspiration tended to load on Factor 1 (Charisma), but some of the items loaded on factors that were unable to be identified, and therefore could not be interpreted. The inspiration items which loaded highly (above .41) on Factor 1 were items 24, 40, 51, 63, and 69. While the loadings were not included in the construct "charisma" as identified in Factor 1, inspiration is clearly a subset of the charisma factor as described by Bass (1985). These results supported the notion that "charisma" and "inspirational leadership" cannot be effectively separated.

Laissez faire leadership. Like the previous items, several items measuring laissez faire leadership loaded in a scattered pattern which did not constitute the emergence of a factor clearly associated with laissez faire leadership. These items loaded highest on latter factors which were discarded in the final analysis.

#### Reliability Test of Factor 1

Since many non-charisma items (inspiration - 5 items) individualized consideration - 2 items; extra effort - 2 items) loaded above .40 on Factor 1, an internal consistency reliability test was performed (Bentler, 1976; Nunnally, 1967). Such a test reveals whether the items loading highly on Factor 1 are measuring the same construct. If that is the case, perhaps Factor 1 is measuring something beyond charisma, or perhaps the concept of charisma should be expanded. The coefficient alpha of all items loading highly on Factor 1 was found to be .95, suggesting that all 25 items considered were indeed measuring the same thing.

When the charisma items were removed from the pool of 25 items, and the other items were examined, key words in those items included concepts such as "rethink," "change," "motivation," "action," "arouses," "coach," "pep," "stimulates," etc. These words, taken as a group, seemed to describe the motivational capacities of the leader. When combined with charisma items, and concepts such as "faith," "vision," "symbol," and "mission," it appeared that Factor 1 was actually describing something including charisma, but more similar to organizational patriotism. Factor 1 seemed to describe transformational leadership more generally than it did the more restrictive notion of charismatic leadership. This finding was consistent with the other two

factor analyses discussed later, in which items other than charisma also loaded highly on Factor 1.

#### Satisfaction and Effectiveness

Items 75-80 of the MLQ dealt with respondents' perceived satisfaction with the leader and perceived effectiveness of the leader. Indexes were obtained by summing of the respondent ratings. The coefficient alpha for effectiveness was .84 and for satisfaction, .88. Pearson correlation coefficients were computed between the six factor scores and the indexes of satisfaction and effectiveness (Table 8).

Table 8

#### Correlation Between Factor Scores and Perceived Satisfaction with the Leader and the Leader's Effectiveness (N = 149)

Factor	Satisfaction	Effectiveness
<u>Transformational</u>		
1. Charisma	.66*	.69*
2. Individualized consideration	.45*	.38*
3. Intellectual stimulation	.15	.19*
<u>Transactional</u>		
4. Contingent reward	.09	.05
5. Management-by-exception (p)	.01	-.05
6. Management-by-exception (a)	-.06	-.02

\* $p < .05$ .

An examination of Table 8 illustrated the high correlations between transformational leadership and satisfaction and effectiveness

(.66 and .69). Individualized consideration correlated .45 and .38, while intellectual stimulation had correlations of .15 and .19. All of these correlations (except the  $r$  of .15) were statistically significant at the .05 level.

The transactional factors correlated far less strongly with satisfaction and effectiveness. Contingent reward correlated .09 and .05, passive management-by-exception correlated .01 and -.05, while active management-by-exception correlated negatively on both dimensions, -.06 and -.02. None of these correlations was statistically significant at the .05 level.

#### Higher-Order Factors

A principal components analysis with oblique rotation was performed to produce a correlation matrix. This matrix produced first-order factor loadings that were then subjected to a varimax rotation to produce higher- or second-order factors. Bass' higher-order factors (1985) resolved themselves into active-proactive and passive-reactive categories. The present higher order factors emerged as transformational and transactional. As can be seen in Table 9, transformational leadership behaviors are clearly separated from transactional leadership behaviors.

Table 9

Loadings on Higher-Order Factors

First-Order Factors	<u>Higher-Order Factors</u>	
	1'	2'
	<u>Transformational</u>	<u>Transactional</u>
Charisma	.67	.20
Individualized consideration	.71	.19
Intellectual stimulation	.54	-.17
Contingent reward	.07	.77
Management-by-exception	-.63	.38

Comparison with Other Factor Analyses

Due to the extremely complex research design and statistical procedures required, statistical comparison of this factor analysis of the MLQ, Form 5, with the other two existing ones was beyond the scope of this study. However, a comparison was made by examining the factors emerging from the three studies and by examining selected item loadings on the factors as examples and points of discussion. The Hater & Bass (1985) and Seltzer (1985) analyses were considered together since their respondents' orientations were leadership in business, while this study focussed on leadership in education.

Table 10 shows a comparison of loadings by factor and item. Since Cattell (1952) considers a loading under .50 to be low and a loading above .70 to be high, the criterion for differences in loadings between this study (Factor Analysis 3), and Hater and Bass (Factor

Analysis 1) and Seltzer (Factor Analysis 2) taken together, will be set at .20. For example, for Factor 1, items are listed which measure charisma, according to Bass (Hater & Bass, 1985). For each item, the loadings are given which were obtained by Hater and Bass (FA1), by Seltzer (FA2), and by Hoover (FA3). Similar material is presented for each of the factors.

Table 10

Comparison of Item Loadings


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Factor 1 - Charisma

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
1	.72	.73	.53 <sup>a</sup>
10	.83	.82	.67
13	.81	.76	.69
21	.71	.56	.59
26	.75	.80	.77
28	.78	.81	.75
29	.79	.76	.70
31	.66	.68	.80
32	.74	.75	.76
33	.81	.73	.77

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Factor 2 - Individualized Consideration

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
3	.68	.54	.69
8	.45	.30	.59
15	.63	.38	.74
16	.53	.56	.69
25	.56	.48	.45
27	.76	.54	.64

(table continues)

## Factor 2 continues

## Factor 2 - Individualized Consideration

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
48	.60	.65	.66
54	.70	.47	.41
60	.70	.51	.47
66	.72	.53	.60

## Factor 3 - Intellectual Stimulation

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
5	.69	.72	.15 <sup>a</sup>
12	.32	.26	.21
19	.42	.56	.36
35	.53	.59	.22 <sup>a</sup>
39	.10	.55	.53
44	.32	.68	.66
50	.09	.42	.78
56	.20	.63	.44
62	.19	.71	.63
68	.25	.73	.53

## Factor 4 - Inspirational Leadership

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
14	.68	*	*
24	.73	*	*

(table continues)



## Factor 4 continued

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
40	.24	*	*
45	.52	*	*
51	.29	*	*
63	.43	*	*
69	.07	*	*

\* No such factor emerged

## Factor 5 - Contingent Reward

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
2	.41	.44	.20 <sup>a</sup>
9	.47	.75	.62
11	.25	.38	.19
20	.71	.33	.66
22	.55	.72	.67
42	.76	.58	.73
47	.69	.24 <sup>a</sup>	.72
53	.60	.64	.52
59	.75	.79	.44 <sup>a</sup>
65	.20	.60	.37

(table continues)

## Factor 6 continues

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
38	.44	.48	.35
43	.72	.79	.74
55	.62	.49	.47
61	.67	.79	.74
67	.53	.40	.39

## Factor 7 - Management By Exception (P)

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
4	.73	.41	.14 <sup>a</sup>
17	.55	.77	.74
23	.50	.61	.59
34	.80	.77	.77
37	.23	.31	.37
49	.60	.76	.65

## Factor 8 - Laissez Faire Leadership

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
7	.55	.30	*
18	.71	.17	*
30	.44	.37	*
41	.49	.47	*

(table continues)

## Factor 8 continues

Items	H & B (FA1)	Seltzer (FA2)	Hoover (FA3)
46	.29	.26	*
52	.14	.17	*
58	.08	.17	*
70	.25	.30	*

\* No such factor emerged

<sup>a</sup>Indicates a loading different from the other two.

Factor 1 - Charisma. A factor called "charisma" emerged in all three analyses. Additionally, items other than those measuring charisma loaded on Factor 1 in all three studies, lending additional credence to the notion that Factor 1 should be reexamined and redefined.

Item 1, "Makes me feel good to be around him/her," is the only item which loaded significantly lower in this study than it did in FA1/FA2. This may have occurred because educational institutions tend to be loosely coupled and the people who work within them are not as dependent upon superiors for emotional support as they might be in other organizations. Educators consider themselves professionals, and as such, may act independently from each other and their superiors. They may not need emotional support as much as they need intellectual stimulation, for example.

Factor 2 - Individualized consideration. Individualized consideration emerged as a factor in all three analyses. Items measuring individualized consideration used terms such as "personal

attention," "delegation," "appreciation," "coaching," "advice," "teacher," "help." etc. The comparative similarity of loadings indicated that leaders' individual attention to subordinates is important in both schools and businesses.

Factor 3 - Intellectual stimulation. Intellectual stimulation emerged as a factor in all three analyses. However, item 5, "His/her ideas have forced me to rethink some of my own ideas which I had never questioned before," and item 35, "Provides me with reasons to change the way I think about problems," loaded significantly lower in this study than they did in FA1 and FA2. Since the "product" of schools falls within the realm of intellectual activity, interpreting these differences was difficult to do. It was difficult to know whether teachers answered these questions in terms of their teaching activities or in terms of organizational issues. However, for the purposes of argument, if it were assumed that teachers were answering in terms of teaching ideas and classroom problems, it could be speculated that the ongoing debate of whether principals are primarily managers or instructional leaders was illustrated.

Factor 4 - Inspirational leadership. Inspirational leadership only emerged in FA1 as a separate factor. In FA2 and FA3, inspirational items were largely subsumed under Factor 1 and inspiration was considered to be a subset of charisma.

Factor 5 - Contingent reward. Contingent reward emerged as a factor in all three analyses. However, the loadings of three items in FA3 differed significantly from the loadings in FA1 and FA2.

Item 2, "Whenever I feel it necessary, I can negotiate with him/her for what I can get for what I accomplish," item 47, "I can get

what I need if I work as agreed with him/her," and item 59, "Points out what I will receive if I do what needs to be done," all address the issue of receiving rewards for agreed-upon performance, but more importantly, all three items address the notion of "need." Answers to these three items pointed out the differences in the perceptions between workers in business who seemed to feel that they get what they need, while teachers in private schools felt that, even when pre-arranged agreements are in force, needs were somewhat violated. The cause for this discrepancy is probably the lack of ability of principals or headmasters to be able to respond to needs which may arise, due to the current practice of schools governed by boards of one type or other. Such arrangements limit principals' capabilities to meet needs as they arise. And, although some private schools are well funded, the lack of met needs may also point up the more common case of chronic underfunding of private schools.

Factor 6 - Active management-by-exception. This factor emerged in all three studies and the loadings were similar in all three. It appeared that management-by-exception is practiced in both businesses and schools.

Factor 7 - Passive management-by-exception. Passive management-by-exception also emerged as a separate factor in all three studies. Item 4, "Is content to let me continue doing my job in the same way as always," however, loaded significantly lower in FA3 than it did in FA1 and FA2. The low loading on this item in FA3 was probably not indicative of any definable pattern in private school leadership, since loadings on items worded very similarly were much higher. It could not be stated with any certainty what caused this difference.

Factor 8 - Laissez faire leadership. These factor loadings cannot be compared, since it did not emerge in FA3 as a separate factor. Several laissez-faire items did load on a factor, but the variance accounted for by that factor was too small to be considered important (1.7%). This indicated that laissez-faire leadership may be less likely to occur in private schools than it does in business.

### Findings

The objective of this chapter was to report the results of a factor analysis of the Multifactor Leadership Questionnaire (MLQ) of Bass (1985), and to determine whether the factor of transformational and transactional leadership as identified by Bass and others (Bass & Hater, 1985; Seltzer, 1985) would emerge in a population different from theirs.

The first step was to perform a principal components factor analysis with varimax rotation. Six factors emerged: charisma, individualized consideration, intellectual stimulation, contingent reward, passive management-by-exception, and active management-by-exception. These six factors were similar to those found by Bass in his original work, representing only a splitting of management-by-exception into passive and active dimensions. The factors were also similar to two other factor analyses of the same instrument, with the only differences being the presence of inspirational and laissez-faire leadership, but not as separate factors.

Next, in order to confirm the analysis of Factor 1, an internal consistency reliability test was performed. It was found that Factor 1 contained more notions than that of "charisma" and should be expanded or redefined.

Perceived satisfaction and leader effectiveness indexes were correlated with factor scores to produce a coefficient alpha. Transformational factors were found to correlate much more strongly with satisfaction and effectiveness than did transactional leadership.

A comparison with two previous factor analyses of the MLQ, Form 5, was performed. Similar factors were found to emerge from the two earlier business-oriented populations and the present education-oriented population. Differences in loadings for some items were noted and discussed, but these differences had no impact on the theory as a whole.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The purpose of this study was to determine whether the leadership model of Bernard Bass, in which he proposed that leaders could be identified as transformational or transactional, would emerge in the same configuration when tested upon a population of secondary-school headmasters. Bass' original work and two factor analyses of the same instrument used in this study had used populations composed of supervisors involved in business, rather than educational, organizations. In previous tests of this model, either five or six factors had been discovered: charisma, individualized consideration, intellectual stimulation, contingent reward, and management-by-exception, which had been divided into active and passive dimensions.

A review of the literature revealed that transformational leadership is a relatively new concept, having first been discussed by Burns in 1978 and developed by Bass (1985) and then by others during the past two years. The review also showed that while a population of New Zealand educators had been used in a comparison of effectiveness and satisfaction with transformational and transactional leadership (Bass, 1985), educational leaders had never been used as a population to test the consistency of the original model. Therefore, this study repeated the research design used by Bernard Bass



in which he identified the five factors which formed the basis for the model of transformational and transactional leadership.

A population of secondary-school headmasters was identified with the help of the Southern Association of Independent Schools. A random sample of the membership was made and those schools were asked to participate in the study. Forty-five of the sample of 100 responded. A second random sample of five teachers from each participating school was selected; these teachers were asked to complete the Multifactor Leadership Questionnaire, Form 5, which describes leader behavior. In this instance, the leader was the headmaster of the school in which the teacher works. A total of 151 teachers responded.

Those responses were subjected to a principal components factor analysis with varimax rotation. The purpose of the factor analysis was to determine how many factors, or constructs underlying the theory, emerged from this population. Six factors, including charisma, individualized consideration, intellectual stimulation, contingent reward, passive management-by-exception, and active management-by-exception were found. These were the same factors that had emerged in the earlier research projects which tested the transformational and transactional leadership model.

Because several items had also grouped with the charisma items on the factor called "Charisma," an internal reliability consistency test was performed. This test was designed to reveal whether all the items which were shown to make up Factor 1 were indeed measuring the same thing. Because many of these items were purported to measure constructs other than charisma, it was found necessary to attempt to discover what this first factor might be. This test revealed a very

high correlation among the items, indicating that some notion other than charisma might be indicated when describing what all of these items taken together actually do measure. It seemed that Factor 1 might more appropriately be called "organizational patriotism," for example, rather than "charisma." At any rate, it was determined that Factor 1 is more than charisma and should be reexamined by other researchers.

In his original research design, Bass had included a higher-order factor analysis. Therefore, the same step was included in this study. Because a procedure different from varimax rotation is necessary in order to perform a higher-order factor analysis, a second principal components analysis was performed, this time with oblique rotation. The rotated factors were examined and it was noted that the same factors had emerged in this second rotation. This is what commonly occurs with varimax and oblique rotations (Gorsuch, 1974). The resulting factor loadings were then submitted to a varimax rotation in order to produce independent or unrelated factors, known as second-order factors. Transformational and transactional leadership emerged as second-order factors.

Bass' original work had included correlations of satisfaction and effectiveness with the transformational and transactional factors. The same test was performed here. Factor scores were produced from the original factors, which were then correlated with the satisfaction and effectiveness responses from the questionnaires. Transformational leadership was found to be much more highly correlated with satisfaction and effectiveness than was transactional leadership.

Because two other factor analyses of the same instrument were in existence, a comparison of the three analyses was done. This analysis

was compared with the other two combined because both of the other two populations were composed of supervisors in businesses rather than in schools. Some differences between the two populations were noted.

Private school teachers reported a slightly lower need for emotional support from their leaders than did workers in businesses, possibly because educators consider themselves to be professionals and may be more independent than their counterparts in business. However, this finding should be carefully interpreted because such a difference was reported on only one item. In the other nine items, the findings were very similar.

It was shown that leaders' individualized attention to subordinates is important in both schools and businesses. Apparently, at least on this dimension, workers are similar regardless of the organizations in which they are involved.

On some of the items measuring intellectual stimulation, teachers reported that their headmasters did not stimulate them to think in new ways about problems which they face. This seemed to point up the perennial debate over whether principals are managers or instructional leaders. Certainly, principals should be providing intellectual stimulation, yet they emerged as lower on this factor than did leaders in businesses. It may be however, that principals may be intellectually stimulating and yet not be characterized as such by the items on the MLQ.

Contingent reward was seen to be a factor in both private schools and businesses, but on items which mentioned "need," teachers felt that their needs were not being met, even when pre-arranged agreements were in existence. This may be due to underfunding of some

private schools or to the headmaster's incapacity to deal with evolving needs because of restraints imposed by school boards.

It appeared that management-by-exception is commonly practiced in both businesses and private schools. However, it should be remembered that when asked about how satisfied they were with their headmasters and how effective they perceived their headmasters to be, the teachers in this study were far more satisfied with and rated effectiveness higher of headmasters who were transformational rather than transactional.

### Conclusions

The hypothesis that the transformational and transactional factors emergent in other studies with populations of supervisors in businesses would reemerge in a population composed of headmasters of private secondary schools was supported. The identical transformational factors of charisma, individualized consideration, and intellectual stimulation were found. The same transactional factors of contingent reward, passive management-by-exception, and active management-by-exception emerged. Therefore, the basis of the transformational and transactional leadership model was supported. The model was confirmed even though the population was different from those previously used by Bass (1985), Hater & Bass (1985), and Seltzer (1985).

It was found that Factor 1, which had been identified in three previous studies as charisma, might more appropriately be designated something else. Because so many items measuring factors other than charisma were part of this factor, it seemed logical that this construct has been inappropriately named and should be known as something broader than charisma. This contention was supported by the findings of the

other two factor analyses of the same instrument, in which non-charisma items also loaded highly on this factor.

This study differed from the findings of Bass in the higher-order factor analysis. In Bass' higher-order analysis, the factors of charisma, individualized consideration, intellectual stimulation, and contingent reward had clustered together to produce one factor, while management-by-exception and laissez-faire leadership had clustered on the other. Bass called the first factor "active-proactive leadership," and the second one "passive-reactive leadership." In this study, however, charisma, individualized consideration, and intellectual stimulation clustered on one factor, and contingent reward and management-by-exception clustered on the other. Therefore, it was clear that the two separate factors of transformational and transactional leadership could be identified as second-order factors in this study.

As in Bass' original study, satisfaction and effectiveness were found to be much more highly correlated with transformational leadership than they were with transactional leadership. This study confirmed Bass' original findings on this point.

The comparison of this factor analysis of responses of school personnel with two previous ones whose respondents were workers in businesses revealed some similarities and some differences. Private school teachers were seen to need slightly less emotional support than workers in businesses. Individual attention to subordinates emerged as important in both businesses and private schools. Teachers in private schools reported less intellectual stimulation than did workers in businesses. Contingent reward is used in both businesses and private schools, but the teachers reported less satisfaction with having those

agreed-upon needs met, once the "contract" is in force. Management-by-exception seemed to be equally practiced in both types of organizations.

It should be noted that a halo effect may have occurred in this study. For example, a headmaster may have been rated high on all transformational items because he was charismatic, which accounts for only one component of transformational leadership. Similarly, respondents' perceptions of headmaster effectiveness and satisfaction with the headmaster may have been biased based upon personal like or dislike of the headmaster. The possibility of such an effect should be kept in mind as conclusions based on the study are considered.

#### Recommendations

The purpose of this study was to determine whether the transformational and transactional leadership model as proposed by Bernard Bass (1985) would be corroborated when it was tested with a population of educational leaders, as contrasted to the business leaders who had previously been the test groups. It was determined that the model did indeed emerge in a pattern nearly identical to those discovered previously. Furthermore, the finding that transformational leadership correlated much more highly with measures of subordinate satisfaction and leader effectiveness than does transactional leadership was also substantiated. A few differences were noted: (1) the factor named "Charisma" included something broader than charisma and should be reexamined for a redefinition; (2) higher- or second-order factors emergent in this study were more closely aligned with the transformational and transactional theories proposed by Bass than were his own original higher-order factors.

Observations regarding private school leadership may be listed when a comparison of this study is made with two others: (1) while a headmaster's sense of mission and purpose is important to teachers, making teachers "feel good" may not be as important to teachers as it is to workers in business; (2) giving individualized attention and support to teachers is important; (3) headmasters were reportedly less involved in intellectual stimulation of their teachers than were supervisors in businesses of their subordinates; (4) while pre-arranged agreements between headmasters and teachers exist in private schools, a greater effort should be made by headmasters to meet the evolving needs of their teachers.

When the comparison of this factor analysis with two previous ones was performed, it was done without statistical procedures, as such a process was beyond the scope of this study. However, such an analysis should be performed by another researcher, including this analysis, the two others cited in this work, and any subsequent factor analyses which have been performed.

This study has shown that the transformational and transactional model proposed by Bass in 1985 can be corroborated in a population different from those used in earlier studies. These results should be noted by others interested in Bass' model and should stimulate future research upon and discussion of the efficacy of the model.

APPENDIX A



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These consist of pages:

APPENDIX A: MULTIFACTOR LEADERSHIP QUESTIONNAIRE; 66-71

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APPENDIX B

3414 Taylorsville Road  
Louisville, KY 40205

Dear Headmaster:

One of the most exciting new concepts in leadership theory in the last decade is the model of Bernard Bass, a leading authority in the field of organizational behavior. The objective of my doctoral dissertation is to replicate this model. Dr. Bass has approved and agreed to my use of his leadership instrument and has agreed to serve on my committee at the University of Louisville.

I am seeking member schools of the Southern Association of Independent Schools whose headmasters and selected faculty would be willing to participate in my research. Taking part in the study would mean that you would supply me with a list of your teachers (names only, please) from which I would make a random choice of four people. These four would complete an 80-item questionnaire regarding the leadership of independent schools. (I estimate that the questionnaire would take 10-15 minutes to complete.) Of course, all responses would be kept confidential and reported as aggregate data, i.e., schools, headmasters, and faculty remain anonymous.

I hope I can count on your participation. Both John Esty, President of NAIS, and Thomas Redmon, Executive Director of SAIS, have expressed intellectual interest in this study. If you are willing to take part, please forward your list of teachers to me within the next week. (Please be sure that your school's name is on the list, since I will be receiving many responses.) If you wish to receive summary results of the study, please include that request with your list.

I look forward to hearing from you.

Sincerely,

Nancy L. Hoover

APPENDIX C

# UNIVERSITY of LOUISVILLE

November 17, 1986

Dear Headmaster:

As Nancy Hoover's dissertation chairman, I join with John Esty and Thomas Redmon in enthusiasm about the value of a replication of the recent research of Bernard Bass, Professor of Organizational Behavior at SUNY, Binghamton. His publication of Leadership and Performance Beyond Expectations (New York: Free Press, 1985) captured the imagination of all interested in further understanding leadership. I am delighted about his cooperative spirit in working with one of our doctoral students here.

As I am sure you know, doctoral research can simply be a requirement and oftentimes no more. Yet on occasion an effort providing significant validation of new perspectives emerges; we believe Nancy Hoover's study is such an effort and deserving of your support. I can assure you that Ms. Hoover is a mature student in every way and that we can count on her discretion and objectivity. I anticipate an exceptional work.

If I can help you with any questions or concerns regarding this study, do not hesitate to call. On behalf of our profession and the effort to push back the frontiers of knowledge, I thank you in advance for your help.

Sincerely,



Robert R. Schulz  
Associate Professor

RRS:jb

APPENDIX D

3414 Taylorsville Road  
Louisville, KY 40205

Dear Faculty Member:

Your headmaster has approved your participation in an important study of leadership. The objective of my doctoral dissertation is to replicate the leadership model of Bernard Bass, as reported in his book Leadership and Performance Beyond Expectations (1985).

Enclosed you will find a questionnaire regarding the leadership of independent schools. Simply complete the questions as they pertain to your headmaster or principal. The questionnaire should take only 10-15 minutes to complete. All responses are confidential and will be reported as aggregate data, i.e., schools, headmasters, and faculty remain anonymous.

Please return your response to me within the next ten days. Enclosed is a self-addressed, stamped envelope for that purpose. If your headmaster has so requested, your school will receive summary results of the study.

Thank you for your help in this research to learn more about leadership behavior.

Sincerely,

Nancy L. Hoover

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## VITA

The author, Nancy Roahrig Hoover, is the daughter of Darwin and Marcele Roahrig. She was born on October 27, 1944, in Indianapolis, Indiana.

She was graduated from Argos Community Schools, Argos, Indiana in 1962. In June, 1966, she was awarded the Bachelor of Arts from Butler University, in Indianapolis, Indiana. and in May, 1976, the Master of Arts from the University of Louisville, Louisville, Kentucky.

She entered the University of Louisville doctoral program in education in September, 1981.