

**THE RELATIONSHIPS AMONG AFFECTIVE ORGANIZATIONAL
COMMITMENT, TRANSFORMATIONAL LEADERSHIP STYLE, AND UNIT
ORGANIZATIONAL EFFECTIVENESS WITHIN THE CORPS OF CADETS
AT TEXAS A&M UNIVERSITY**

A Dissertation

by

TERRY PAUL EKELAND

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

December 2005

Major Subject: Educational Human Resource Development

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Approved by:

Chair of Committee,	Larry M. Dooley
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ABSTRACT

The Relationships Among Affective Organizational Commitment, Transformational Leadership Style, and Unit Organizational Effectiveness Within the Corps of Cadets at Texas A&M University. (December 2005)

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Organizational commitment and transformational leadership have been found to correlate positively with each other and with organizational effectiveness. However, much of the commitment research has been based on traditional organizations with employment relationships, raising questions as to whether the research can be generalized to voluntary organizations. Research on transformational leadership has occurred across a broad spectrum of organizations and causal links to objective measures of performance have been hypothesized.

The purpose of this research was to extend the existing commitment, leadership, and organizational effectiveness research into the context of a voluntary organization, and contribute new knowledge and understanding of these relationships. The nature of a specific voluntary organization, the Corps of Cadets at Texas A&M University, was examined in terms of the relationships among affective commitment to the organization, transformational leadership style, and ultimately organizational effectiveness. A

hypothesized causal model was proposed to explain the relationships among these three variables.

The Affective Commitment Scale and Multifactor Leadership Questionnaire were found to be valid and reliable in the voluntary organization examined. Consistent with prior research, a significant positive correlation was found between affective commitment and transformational leadership. However, extending this relationship to organizational effectiveness through the hypothesized causal model was not supported.

DEDICATION

To those I love...

My Lord, Jesus Christ

My wife, Kellie

My parents, Trig and Arlene

My children, Robin, Kelli, and Scott

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When reflecting on the journey this dissertation represents, it becomes clear that I did not reach this point alone. I firmly believe that God directed my journey through the lives of others. I am totally indebted to my committee, my family, and my friends. Without their guidance, wisdom, support, and encouragement along the way, this dissertation would not have been possible.

I must express sincere appreciation to my committee. My committee chair, Dr. Larry Dooley, provided guidance and encouragement throughout the process. He patiently acted as a sounding board and reality-checker for my ideas and ambitions. Dr. Jamie Callahan was instrumental in helping me focus my topic area, and asked thought-provoking questions which consistently challenged me to reassess my research. Dr. Homer Tolson provided through review of my research methodology and statistical analysis, as well as expert grammatical feedback. Dr. Ben Welch encouraged me every step of the way and kept me grounded in reality. He volunteered to serve on my committee while I was still thinking about pursuing doctoral studies. It was an honor to be associated with individuals who unselfishly shared their passion for their profession.

I extend my thanks to the Office of the Commandant, for their willingness to embrace my research agenda, provide historical data, and supply email addresses and access to the cadets. Dr. Dick Cummins was instrumental in this effort, and I appreciate his friendship and devotion to the Corps of Cadets. I am also grateful to the hundreds of individual cadets who voluntarily participated in the research.

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CHAPTER I

INTRODUCTION

When individuals and teams are committed to the values and goals of their organization, they have higher morale, lower turnover, increased job satisfaction, and increased productivity (Meyer & Allen, 1997; Mowday, Porter, & Steers, 1982). Additionally, “There is considerable evidence that transformational leadership is effective” (Yukl, 1999, p. 287). According to Bass (1998), most researchers have found that transformational leadership is positively related to indicators of leadership effectiveness. Transformational leadership has also shown positive correlation to employee satisfaction and performance (Lowe, Kroeck, & Sivasubramaniam, 1996). Results of a meta-analysis support the belief that transformational leadership is associated with work unit effectiveness (Lowe, et al., 1996), finding higher associations between transformational scales and effectiveness than between transactional scales and effectiveness.

In a study at the US Air Force Academy, Ross and Offermann (1997) found that transformational leadership had significant correlation with subordinate satisfaction, but no significant relationship was found between transformational leadership and six objective measures of performance. However, these researchers looked at the perceived leadership behavior of commissioned officers with responsibility for the cadet units, not the cadets actually leading the units. Consequently there is a need for more research on

This dissertation follows the style and format of *Human Resource Development Quarterly*.

the impact of transformational leadership on objective performance to establish causality (Kirkpatrick & Locke, 1996).

According to Catano, Pond, and Kelloway (2001), considerable research has been focused on the effectiveness of formal business and government organizations, while voluntary organizations have received far less attention. The research on organizational effectiveness is often related to profit-loss financial performance, not generally relevant to voluntary organizations, perhaps with the exception of fund-raising or administrative overhead.

The nature of a specific voluntary organization, the Corps of Cadets at Texas A&M University, was examined in terms of the relationships among affective commitment to the organization, transformational leadership styles, and ultimately organizational effectiveness. A path-analytic model was proposed to explain the relationships between these three variables.

While numerous researchers have focused their attention on determining the role of commitment and leadership in for-profit organizations, comparatively scant attention has been directed to the impact of these variables in voluntary organizations. Catano, et al. (2001) contend that voluntary organizations represent an ideal context in which to study commitment and leadership—a context where no employment relationship exists.

Statement of the Problem

Organizational commitment and transformational leadership have been found to correlate positively with each other and with organizational effectiveness (Allen & Meyer, 1996; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Hoyt & Blascovich,

2003; Lowe, et al., 1996). However, much of the commitment research has been based on traditional organizations with employment relationships, raising questions as to whether the research can be generalized to voluntary organizations. Research on transformational leadership has occurred across a broad spectrum of organizations and causal links to objective measures of performance have been hypothesized. The relationships among affective organizational commitment, transformational leadership style, and organizational effectiveness were explored within the context of a specific voluntary organization, determining the extent to which each impact and predict organizational effectiveness.

Purpose of the Research

The purpose of this research was to gain a better understanding of the relationships among organizational commitment, leadership style, and organizational effectiveness within the context of a voluntary organization. This researcher extended existing research into the context of a voluntary organization, and contributed new knowledge and understanding of these relationships. Additionally, a causal relationship was proposed for affective commitment and transformational leadership to organizational effectiveness.

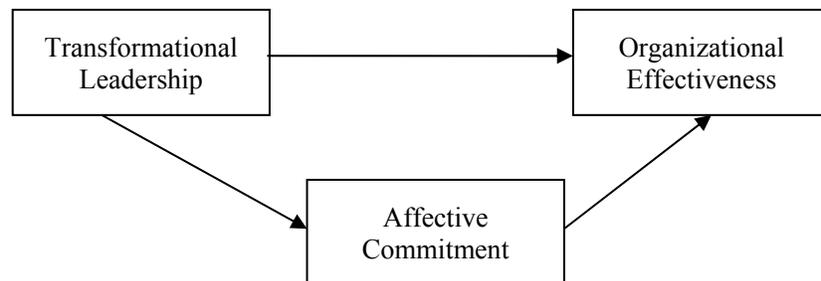
Research Questions

1. What is the level of affective organizational commitment (as indicated with the Affective Commitment Scale) among cadets in the Corps of Cadets, and are there differences in commitment based on corps classification, gender,

race/ethnicity, unit membership, ROTC affiliation, scholarship/military contract status, or legacy affiliation?

2. What level of transformational leadership style (as indicated by the Multifactor Leadership Questionnaire) do cadets perceive are practiced by unit leaders in the Corps of Cadets, and are there differences in perceived leadership styles based on corps classification, gender, race/ethnicity, unit membership, ROTC affiliation, scholarship/military contract status, or legacy affiliation?
3. To what extent does affective organizational commitment of cadets and transformational leadership style of unit leaders predict unit organizational effectiveness? A hypothesized model is depicted in Figure 1.

Figure 1. Impact of Transformational Leadership and Affective Commitment on Organizational Effectiveness



Operational Definitions

Affective Commitment: An emotional attachment to, identification with, and involvement in the organization—measured in this study by the Affective Commitment Scale (ACS) (Meyer, Allen, & Smith, 1993).

Cadet: An undergraduate student participating in the Corps of Cadets.

Commitment: A strong belief in and acceptance of organizational goals and values, a willingness to exert effort on behalf of the organization, and a desire to maintain organizational membership (Porter, Steers, Mowday, & Boulian, 1974).

Corps of Cadets: A full-time, voluntary, paramilitary organization of approximately 1,800 cadets enrolled as full-time undergraduate students at Texas A&M University.

D&C: Drills and Ceremonies cadet. A junior/senior cadet not under military scholarship or contract, and therefore not enrolled in ROTC courses—otherwise a full member and participant in all Corps of Cadets activities.

General Moore Award: An award given annually to recognize the outstanding company/squadron/battery-sized unit in the Corps of Cadets, based on scores in four categories: scholastic proficiency, military proficiency, recruiting and retention, and intramural competition/extra-curricular involvement.

Legacy Affiliation: Cadets whose immediate or close family members are current or previous members of the Corps of Cadets—determined in this study by self-reported information.

Office of the Commandant: University administrative office charged with the oversight of daily cadet operations, facilities, services, and activities which contribute to the mission of the Corps of Cadets.

Organizational Effectiveness: The degree to which an organization achieves its objectives in the areas being assessed—measured in this study by the General Moore Award scores computed by the Office of the Commandant.

Reserve Officer Training Corps (ROTC): Mandatory program of courses conducted by one of the U.S. Armed Services (Army, Air Force, Navy/Marine Corps) for freshman and sophomore cadets. Junior and senior cadets on military scholarship or contract option are required to attend additional courses.

Transformational Leadership: A style of leadership characterized as the ability to elicit support and participation from followers through personal qualities (Bass, 1985; Bass & Avolio, 2000), and measured in five areas: inspirational motivation, idealized influence—behaviors, idealized influence—attributes (attributed charisma), intellectual stimulation, and individualized consideration. It is measured in this study by the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 2000).

Transactional Leadership: A style of leadership characterized by rewarding or disciplining followers based on the adequacy of follower's performance (Bass, 1985; Bass & Avolio, 2000), and measured in two areas: contingent reward and management-by-exception (active).

Unit: A company/squadron/battery-sized organization within the Corps of Cadets, consisting of freshman, sophomore, junior, and senior cadets.

Unit Leader: A senior cadet serving as unit commanding officer.

Scope and Delimitations

This research was focused on the measurement of affective organizational commitment, transformational leadership style, and organizational effectiveness in one voluntary, student organization—the Corps of Cadets at Texas A&M University. No attempt was made to determine the specific factors initially motivating individuals to join the Corps of Cadets, or the methods by which cadet leadership styles or behaviors are developed. While commitment and leadership style were measured in each of the 30 individual units, the fact they are part of the same larger organization cannot be ignored.

The Corps of Cadets has two levels of organization above the unit level—a brigade/wing/regiment level and a Corps of Cadets Staff level. The organizational commitment of individual cadet staff members and their perceptions of the leadership styles of the cadets in charge of these staff organizations were not measured.

Limitations

This research was focused only on one voluntary, military-style student organization, thereby limiting the generalizability of findings to other organizations. Access to cadets was via e-mail and the data was collected through a web-based survey instrument, resulting in limited or non-existent personal contact. While this methodology greatly improved the ease and speed of data collection, it included the possibility the e-mail was ignored or considered unwanted “spam” by some cadets, thereby limiting response rate.

The results obtained might also be influenced by some form of common method variance, since a self-report survey questionnaire was used to collect data on the independent variables of affective commitment and perceived cadet leadership style. Data for the dependent variable, organizational effectiveness, was limited to historical information provided by the Office of the Commandant. Additionally, data was collected at a single point in time, raising the possibility that data collected at another time might produce different results. Future studies should include some longitudinal components to better measure changes in variables over time, testing causal hypotheses more directly.

Assumptions

This researcher assumed student participants would have sufficient understanding and proficiency with e-mail software applications and web-based technologies to complete the online research instruments. Access to computers and the web (either in dormitory rooms or at one of the many open access labs on campus) was also assumed.

Information provided by cadets was assumed to be true and accurate, reflecting their individual level of affective organizational commitment to their unit and honest observations of their respective cadet leaders. Additionally, the General Moore Award scores were accepted as an appropriate and accurate measure of unit organizational effectiveness.

Significance of the Research

One of the stated long-term goals for the Corps of Cadets is to reoccupy the quadrangle, consisting of 12 dormitories. This would require a membership of 2,600

cadets. The Corps currently attracts approximately 700 freshmen cadets each year, but loses far too many of them through attrition. In excess of 30% leave the Corps by the end of their freshmen year. Additionally, many cadets choose not to return each fall—even after successfully completing the freshman, sophomore, or junior years. Attrition among upperclassmen averages nearly 8%—a result of dismissal for academics, disciplinary actions, and/or noncompliance with physical fitness standards.

In support of this goal of increasing overall membership in the Corps of Cadets, research into approaches offering improved leadership style and higher organizational commitment is appropriate. A review of the research suggests that organizations interested in reducing voluntary turnover behavior can do so by fostering affective commitment (Jaros, 1997; Whitener & Walz, 1993; Meyer, et al., 1993).

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

What are the relationships among leadership in voluntary organizations, organizational commitment, and organizational effectiveness? To what extent is organizational effectiveness influenced by individuals' commitment to the organization and the leader's style of leadership?

Organizational commitment is assumed to influence just about any employee behavior that is of benefit to the organization, and transformational leadership is portrayed as the most appropriate leadership style for improving individual and organizational performance. A review of literature will provide an understanding of the constructs involved, present evidence of their correlational relationships, and provide a theoretical basis for the proposed relationship structure.

Theoretical Framework

A review of several meta-analyses reveals that nearly all research conducted in the area of organizational commitment involves organizations where an employment relationship was present (e.g. Mathieu & Zajac, 1990; Angle & Perry, 1981; Allen & Meyer, 1996; Meyer, et al., 2002). Affective commitment has been found to correlate positively with performance (Allen & Meyer, 1996) and transformational leadership (Meyer, et al., 2002). Transformational leadership has been studied in a wide variety of organizational types, including profit, non-profit, military, and educational settings (Bass & Avolio, 2000), and has been shown to correlate positively with performance (Hoyt &

Blascovich, 2003) and effectiveness (Lowe, et al., 1996). Since organizational effectiveness is an elusive concept, the evaluation construct used to measure it must be specifically tailored to the organization being assessed (Cameron & Whetten, 1983).

Organizational Commitment

Voluntary organizations are distinctively group systems; decisions are made by consensus or majority vote and leadership is emergent, subject to the will of the majority, and often rotating (Wilderom & Miner, 1991). Organizational commitment is one of the most often researched variables in the area of organizational behavior, since it is assumed to influence just about any employee behavior that is of benefit to the organization, including performance, attendance, and retention (Riketta, 2002). What factors contribute to the individual decision to associate with, participate in, and commit to a voluntary organization?

Motivation to Associate and Participate. Motivation can be generally classified as either extrinsic—doing something for an expectation of compensation, or intrinsic—doing something for the sake of the activity or the outcome. Farmer and Fedor (1999) note the lack of rigorous empirical research exploring the management of volunteers and suggest as a reason the lack of a coherent, well-established framework for understanding volunteer behavior, particularly in the areas of participation and withdrawal. They suggest that psychological contract theory may be used to explain volunteer behavior and performance. Even though volunteers do not expect financial gain from their services, they do expect other considerations from these organizations (Farmer & Fedor,

1999). The results of their research support the idea that psychological contract fulfillment (or violation) affects the level of volunteer participation.

Farmer and Fedor (1999) drew four conclusions:

1. People select themselves into their volunteer work situations;
2. Psychological contracts in volunteers are much more likely to be relational than transactional;
3. Perceived breaches in the psychological contract may have serious consequences concerning level of participation in the organization, due to the combination of relational contracts and difficulties in mandating volunteer behavior; and
4. Fulfillment of psychological contracts may rest on more than just expectations.

Allison, Okun, and Dutridge (2002) conducted a study to determine the motives of volunteers given the choices of career, esteem, protective, social, understanding, and value. Participants in the study rated the value motive as their most important motive for volunteering, followed by the esteem and understanding motives. Post hoc analysis of their data also revealed three additional motives for volunteering: enjoyment, religiosity, and team building. Basically, individuals join voluntary organizations because of the compatibility of their beliefs with the values of the organization.

While the Corps of Cadets does not contain the typical employment relationship of monetary compensation for individual effort, for those students on ROTC scholarship, participation is mandatory and results in employment following graduation. The

paramilitary structure in the Corps of Cadets does provide supervisory relationships similar to those of employment, albeit without financial compensation.

Organizational Commitment. Organizational commitment may be generally defined as a strong belief in and acceptance of organizational goals and values, a willingness to exert effort on behalf of the organization, and a desire to maintain organizational membership (Porter et al., 1974). Building from this definition, Mowday, Steers, and Porter (1979) developed the Organizational Commitment Questionnaire (OCQ) as a measure of employee commitment to work organizations. This instrument has become the most widely used unidimensional measure of organizational commitment (Meyer, et al., 2002). However, the OCQ is not without criticism. While some researchers have found support for the OCQ measuring a single factor (e.g. Morrow & McElroy, 1986; Meyer & Allen, 1984; Ferris & Aranya, 1983), other researchers have found support for multidimensionality within the instrument (Angle & Perry, 1981; Luthans, McCaul, & Dodd, 1985; Koh, Steers, & Terborg, 1995; Yousef, 2003).

Consistent with their understanding of organizational commitment as a multidimensional construct, Meyer and Allen (1991) proposed a Three-Component Model, including: affective commitment, continuance commitment, and normative commitment. In this model, affective commitment denotes an emotional attachment to, identification with, and involvement in the organization; continuance commitment denotes the perceived costs associated with leaving the organization; and normative commitment denotes the perceived obligation to remain in the organization. Meyer and

Allen (1997) advise that the three components should not be seen as mutually exclusive, but as components that can variously coexist. Three scales were constructed to evaluate the model: the Affective (ACS), Continuance (CCS), and Normative (NCS) Commitment Scales (Allen & Meyer, 1990; Meyer & Allen, 1991; Meyer, et al., 1993).

In a meta-analysis, commitment measured with the OCQ was found to be highly correlated (.88) with the Meyer and Allen (1991) Affective Commitment Scale (ACS) (Meyer, et al., 2002). This strong correlation was expected since the instruments purport to measure the same construct. Affective commitment denotes a “want to” form of commitment, related to emotional need for and social interactions with other members of the organization, as well as the positive feelings that result from association with the organization. The affective component is of particular interest in this research due to its relevance to voluntary organizations and the motivations for association and participation presented earlier. Continuance commitment denotes a “have to” form of commitment, indicating an awareness of the costs associated in leaving an organization. Normative commitment denotes an “ought to” form of commitment, related to a sense of moral responsibility or feeling of duty or obligation to the organization.

Antecedents, Correlates and Outcomes of Organizational Commitment.

According to Rylander (2003), the value of organizational commitment is enhanced when relationships can be established with desired outcomes and when antecedent variables can be identified. In general, organizational commitment should lead to outcomes related to improved relationships and performance, and a reduction in turnover or intent to leave (Rylander, 2003). In a meta-analytic study, Matthieu and Zajac (1990)

identified the following antecedents to organizational commitment: personal characteristics, role states, job characteristics, group-leader relations, and organizational characteristics. Additionally, McPherson (1983) found that behavioral commitment to an organization is constrained less by attitudinal disposition and more by broad social, geographic and institutional factors. For example, people are more likely to retain their memberships in voluntary organizations when their employment and/or personal relationships reinforce that membership. Organizational achievements can also serve to reenergize the activity of the participants (Katz & Kahn, 1978).

Extending Matthieu and Zajac's (1990) findings, Meyer, et al. (2002) and Riketta (2002) found through meta-analyses that demographic variables of age, gender, education, job level and organizational tenure had only minor significant relationships with affective commitment. This finding supports the argument that rather than recruiting those who might be predisposed to being affectively committed, it would be better to manage experiences following entry to the organization (Meyer et al., 2002; Irving & Meyer, 1994; Meyer, Bobocel, & Allen, 1991). However, Meyer et al. (2002) did find significant correlations between affective commitment and overall job satisfaction (.65), occupational commitment (.51), organizational justice variables (.38 to .50), and transformational leadership (.46). Significant negative correlations (-.21 to -.31; effect size .04 to .09) were found between continuance commitment and perceived transferability of skills and education. While the research reviewed in these meta-analyses appears to come from organizations where an employment relationship exists,

Catano, et al. (2001) contended the influences of organizational commitment, justice, and leadership are equally applicable in voluntary organizations.

Existing research in organizational commitment literature suggests that affective commitment correlates significantly with a broader range of outcome measures, and correlates more strongly than continuance and normative commitment (Meyer & Herscovitch, 2001). In a meta-analysis of more than 40 studies exceeding 16,000 employees, Allen and Meyer (1996) found significant positive correlations between affective commitment measured with the ACS and independent measures of composite or overall performance ranging from .23 to .31 (effect size .04 to .09). Significant positive correlations ranging from .36 to .63 were also found for the competence-related variables of feedback, goal difficulty, and job challenge. For organizational variables, significant positive correlations were found for dependability (.56 - .61), support (.64), and management receptiveness (.48) (Allen & Meyer, 1996).

Angle and Perry (1981) noted that individual commitment to an organization does not automatically result in a dependable or hardworking employee. Without the proper leadership and motivation, commitment by itself would not result in organizational effectiveness. From the perspective of a voluntary organization, this would seem to be consistent with the factors influencing participant motivation and association discussed earlier.

Transformational Leadership

Leadership is a “complex task for which the outcomes are often neither immediate or concrete” (Popper & Lipshitz, 1993, p. 24). Compounding this aspect of

leadership is the difficulty in determining a cause and effect relationship between leadership actions and organizational outcomes. Leadership is essentially motivating others by non-coercive means (Popper & Lipshitz, 1993). According to Rost (1993), the essence of leadership is not the leader, but the relationship between the leader and the follower. Leadership then is not about what leaders do, rather it is about what leaders and followers do together. Leaders must manage an ongoing process of developing and clearly communicating common goals, and gaining commitment from others to attain these goals. One mark of effective leadership is the ability of the leader to subordinate the organizational structure when the requirements of the situation are clear and popular support exists (Katz & Kahn, 1978). This reflects the common understanding of leadership as doing the right thing versus a purely management response of just doing things right.

The impact of differing leadership styles on volunteers and the organization processes in general can be critical for organizational success. The concept of transformational and transactional leadership first emerged in work by Burns (1978) on the histories of various political leaders. Bass (1985) characterized transformational leadership as the ability to elicit support and participation from followers through personal qualities. This charismatic, non-coercive approach is in contrast to transactional leadership, where support and participation is typically elicited through reward and punishment.

According to Avolio, Waldman, and Yammarino (1991) transactional leadership is the most common form of effective leadership found in organizations, where leaders

specify what will be done, how it will be done, and the reward received for completing the objectives. However, a transactional leadership approach does not adequately explain why some followers are willing to subjugate their own self-interest for the good of the leader, their colleagues, or their organization (Avolio, et al., 1991). Firestone and Fislser (2002) contend that a transformational leadership approach is necessary, and goes beyond mere exchange or transaction to modify the underlying purposes of the work, promoting a sense of professional community. This shared sense of identity and emphasis on group achievement is indicative of a voluntary organization, and is apparent in the Corps of Cadets through an emphasis on unit identification and achievement in measures of organizational effectiveness.

Bass (1985) developed an instrument to measure transformational and transactional leader behavior, the Multifactor Leadership Questionnaire (MLQ). The MLQ is designed to measure a full range of leadership behaviors. The instrument factors, definitions and groupings have been through a number of changes since initial development, but are presented here in the most recent nine-component form (Bass & Avolio, 2000). Five components are included in the transformational leadership scale: inspirational motivation, idealized influence—behaviors, idealized influence—attributes (attributed charisma), intellectual stimulation, and individualized consideration (Bass & Avolio, 2000). Two components are included in the transactional leadership scale: contingent reward and management-by-exception (active). The remaining two components: management-by-exception (passive) and laissez faire are classified as passive-avoidant behaviors—essentially associated with often ineffective, non-

leadership behaviors (Bass & Avolio, 2000). A summary of the five transformational components and their characteristics is presented in Table 1 (Bass, 1998; Bass & Avolio, 1994, 2000; Avolio, et al., 1991).

Table 1. Transformational Leadership: Components & Characteristics

<i>Component</i>	<i>Characteristics</i>
Inspirational Motivation	Communicates a vision Energizes others Expresses confidence
Idealized Influence – Behaviors	Discussing values and beliefs Showing respect for others Emphasizes mission
Idealized Influence – Attributes (Attributed Charisma)	Instills pride in others Goes beyond self-interest Admired, respected, trusted
Intellectual Stimulation	Fosters creativity Encourages new ideas Questions assumptions
Individualized Consideration	Listens attentively Recognizes contributions Develops subordinates

Correlates and Outcomes of Transformational Leadership. Transformational leadership has been shown to be effective in improving group performance. Hoyt and Blascovich (2003) noted the impact of transformational leadership on objective performance measures has been observed in many domains: financial performance, technological innovation, unit performance, military performance, as well as simulated organizational performance and production tasks. In a meta-analytic review of 39 studies, Lowe, et al. (1996) found that the transformational leadership scale was reliable (Cronbach $\alpha = .86$ to $.92$ on three key elements) and correlated positively with

effectiveness (.60 to .71). The transactional scale was also correlated positively with effectiveness, but at much lower levels (.41 & .05).

The nature of the relationship between leaders and non-leaders is especially important in voluntary organizations, since the member has the ultimate option of withdrawing from the organization (Catano et al., 2001). While the argument could be made that this option exists in all organizations, the economic impact of quitting paid employment is a moderating factor. Active participation by both leaders and non-leaders is necessary for the organization to complete its goals and missions (Catano et al., 2001). Further aggravating the relationship between leaders and non-leaders is the recurring problem of building a shared understanding of the common good (Firestone and Fidler, 2002). Without this shared understanding, it would be easy for any organization to lose focus and direction, becoming ineffective and impacting volunteer recruitment and ongoing commitment.

Addressing the relationship with non-leaders, transformational leaders link task goals to self-regulatory systems, emphasizing higher level self-relevant constructs such as personal projects, self-identities, and underlying values (Lord, Brown, & Freiberg, 1999). They also emphasize a connection between possible selves and collective identities as determinants of specific task goals. A transactional leadership approach is based on linking efforts to rewards in the minds of followers, while transformational leadership arouses deep emotions, which lead followers to the behaviors necessary to achieve objectives (Popper & Lipshitz, 1993). While a transformational approach points to the reciprocity of commitment between leaders and followers, it may create

overdependence if subordinate development is ignored, resulting in a lack of appropriate action in the absence of the leader (Popper & Lipshitz, 1993).

A shortage of leaders is also common in voluntary organizations, and seems to be driven by people's unwillingness to commit (Hoffman, 1995). For this reason, Hoffman believes the preparation of future leaders should be built into the responsibility of the current leaders—in essence, preparing their own replacements. In this way, the impact of successful leaders can be felt throughout the structure of the organization. The structure and organization of the Corps of Cadets as a four-year leadership laboratory is directly relevant to these transformational concepts of leadership development.

Organizational Effectiveness

Cameron and Whetten (1983) drew two conclusions about organizational effectiveness. First, the usage of the term has been so diverse, with various indicators, that “a single, clear definition is neither possible nor desirable” (Cameron & Whetten, 1983, p. 263). Second, that it is more worthwhile to develop frameworks for assessing effectiveness than to develop theories of effectiveness. While a mutually acceptable definition of organizational effectiveness may not be possible, Herman and Renz (1999) contended that the most obvious approach is to simply ask: “To what extent does an organization reach its goals?” (p. 108). As Herman and Renz (1999) pointed out; however, this approach assumes that organizations have goals; that the goals are known, are somewhat stable, can be converted into objective measures; and finally, that data appropriate to those goals can be used to measure progress toward attainment. These assumptions have proven to be problematic in much of academic organizational theory

(Herman & Renz, 1999). Additionally, Herman and Renz (1999) contended that effectiveness is always a matter of comparison, is multidimensional, and will never be reduced to a single measure.

Rojas (2000) noted that while the concept of organizational effectiveness has remained an elusive subject of research; it remains a critical concept in organizational theory. Consistent with Cameron and Whetten (1983) and Herman and Renz (1999), Rojas (2000) determined from a review of the literature that organizational effectiveness most often requires a multidimensional model. The best criteria for this evaluation remains elusive, however since an organization may have multiple goals and objectives that are difficult to ascertain (Cameron, 1981; Lachman & Wolfe, 1997). Whenever assessing organizational effectiveness, the construct of effectiveness must be bounded by the context of the organization being assessed and viewed from the perspective of the organizations goals and processes (Cameron and Whetten, 1983; Lachman & Wolfe, 1997). Consequently, organizational effectiveness is explored here in the framework of seven decision guides developed through a synthesis of literature and proposed by Cameron and Whetten (1983).

Guide 1: From Whose Perspective Is Effectiveness Being Judged? Cameron and Whetten (1983) contended that effectiveness must be defined and assessed from someone's viewpoint, and that viewpoint must be explicit. Criteria established by different constituencies can often differ markedly, with some researchers advocating constituencies of coalitions, top managers, external providers, organizational members. In terms of the Corps of Cadets, the defining and assessing viewpoint is the Office of the

Commandant. This is consistent with the power approach identified by Zammuto (1984), where the most powerful constituency influences or determines the organizational effectiveness criteria.

Guide 2: On What Domain of Activity Is the Judgment Focused? Defining organizational domains depends in large part on the constituencies served, technologies employed, and outputs produced (Cameron & Whetten, 1983). These domains arise from activities or primary tasks of the organization, as well as the demands resulting from external forces. Effectiveness in each domain can vary and it is therefore necessary the domains being measured be clearly spelled out (Lachman & Wolfe, 1997). For the Corps of Cadets, this means recognizing the student, academic, military, and leadership development aspects of organizational effectiveness.

Guide 3: What Level of Analysis Is Being Used? Assessments of effectiveness can be made at several levels: the individual, the subunit/department, the organization, the population or industry, or even societal (Cameron & Whetten, 1983). For appropriate judgments of effectiveness to be made, attention must be paid to the level of analysis. Effectiveness at one level may not translate to effectiveness at another level. The level of analysis used to assess organizational effectiveness within the Corps of Cadets is the unit. Aggregate scores are used for military proficiency and intramural/extra-curricular involvement, and averages of individual grade point averages are used for academic performance. Retention is evaluated on unit statistics.

Guide 4: What Is the Purpose for Judging Effectiveness? Cameron and Whetten (1983) noted the judgment of effectiveness is almost always affected by the

purpose of judging. Changing the purpose of evaluation alters the consequences for the evaluator as well as the organization being evaluated. Different data, different information sources, and different assessment strategies may be required if the purpose of evaluation changes. The purpose for judging effectiveness in the Corps of Cadets is to enable goal-setting, stimulate inter-unit competition, and recognize unit achievement.

Guide 5: What Time Frame Is Being Employed? Because long-term effectiveness may be incompatible with short-term effectiveness, the time frame used for evaluating effectiveness must be selected in the context of the organization and be made explicit in the evaluation (Cameron & Whetten, 1983). The evaluation of organizational effectiveness for the Corps of Cadets is the academic year—from initial fall enrollment until just prior to the end of the spring semester. This is an appropriate choice given the nature and structure of the organization, and allows for the maximum amount of evaluation time for stable units under consistent leadership.

Guide 6: What Type of Data Are Being Used for Judgments of Effectiveness? The choice of information used in the evaluation of organizational effectiveness can impact the results of the evaluation. Whether information is gathered by the organization itself, collected from official documents, or obtained from perceptions of the members of constituent groups may depend on the domain, level of analysis, or purpose criteria previously developed (Cameron & Whetten, 1983). While subjective data may provide a broader set of criteria from a wider variety of perspectives, objective data provides the advantage of being readily attainable, quantifiable, and potentially less biased. Both objective and subjective data is used in assessing unit effectiveness in the Corps of

Cadets. Objective data includes retention statistics, individual academic performance, and records of intramural/extra-curricular involvement. Subjective data primarily addresses the military proficiency aspect of unit effectiveness, through individual and unit inspections of uniforms and dormitory rooms, as well as subjectively observed and graded unit drills/marching performance.

Guide 7: What Is the Referent Against Which Effectiveness Is Judged?

Cameron and Whetten (1983) presented several alternatives for judging effectiveness: comparative judgment between organizations, judgment against a standard or ideal performance level, a goal-centered judgment against stated organizational goals, improvement judgment against previous performance, and trait judgment against static characteristics independent of performance. As previously discussed and evidenced here, effectiveness is always comparative—the question is, compared against what? Within the Corps of Cadets, organizational effectiveness is a comparative judgment between units, conducted on an annual basis. While data is retained and available to compare unit effectiveness to previous years' effectiveness, the changing nature of the unit membership and cadet leadership from year to year limits the relevance of this comparison.

Conclusions

Brown and Posner (2001) concluded that leaders must establish a vision, shape a culture consistent with that vision, and inspire people to use their talents and abilities in achieving that vision. To be successful, this three-fold approach not only requires transformational leaders, but also results in a need for leadership development (Brown &

Posner, 2001). Bass (1995) suggested that organizations require extra-role behaviors from their employees to be productive, and that transformational leadership will produce these behaviors. The willingness to make this extra effort is described by the affective commitment of the employee (Meyer and Allen, 1991; Meyer, et al., 2002). Not surprisingly, transformational leadership was found to correlate positively (.39 - .45) with affective commitment (Bycio, Hackett, & Allen, 1995).

Since “the objective of commitment research is to predict *actual* behavior—intention is only a proxy variable” (Meyer & Herscovitch., 2001, p. 321), a central question emerges for the relationships proposed in this research: Can affective organizational commitment be developed? Meyer and Herscovitch (2001) suggest the answer is yes, and that

any personal or situational variable that contributes to the likelihood that an individual will (a) become involved (intrinsically motivated, absorbed) in a course of action, (b) recognize the value-relevance of association with an entity or pursuit of a course of action, and/or (c) derive his or her identity from association with an entity, or from working toward an objective, will contribute to the development of affective commitment (p. 316).

To develop affective commitment then, emphasis should be placed on building the bases of identity-relevance, shared values, and personal involvement (Meyer & Herscovitch, 2001). These emphasis areas seem to link closely with the transformational leadership behaviors presented earlier. A significant positive relationship has also been found between access to (and support for) training and organizational commitment (e.g. Bartlett, 2001; Tansky & Cohen, 2001; Amhad & Bakar, 2003). However, Meyer and

Allen (1997) noted that since antecedent variables affect commitment simultaneously, the process of developing commitment may be more complex than currently described.

According to Brown (1996), a high score on a measure of affective commitment indicates an individual supports the goals of the organization, intends to remain a long-term member of the organization, and holds positive attitudes towards the organization. A strategy for developing commitment might therefore involve inducing (without requiring) individuals to make pledges to goal attainment that stimulate extra-role behavior (Brown, 1996). Based on the positive correlations found between affective commitment and competence-related variables discussed earlier, Jaros (1997) suggested that efforts at developing affective commitment should focus on the work experiences and job characteristics of task autonomy, task significance, task identity, skill variety, supervisory feedback, and organizational dependability.

Rodsutti and Swierczek (2002) found that organizational effectiveness was associated with different dimensions of leadership. Leaders in the most effective organizations emphasized the leadership characteristics of interpersonal skill and group problem-solving, consistent with the characteristics of transformational leadership. Through their analysis, Rodsutti and Swierczek (2002) demonstrated “clear and specific links between organizational effectiveness and leadership” (p. 257).

The seven organizational effectiveness guides set forth by Cameron and Whetten (1983), provide a methodology by which organizations are able to define the multidimensional construct of effectiveness appropriate to their specific organizational

environment. Additionally, the guides provide a common framework with which to conduct cross-organization research.

CHAPTER III

METHODOLOGY

The methodology selected for this study was a non-experimental, quantitative research design, using both survey instrumentation and historical information. The research population, selected instrumentation, data collection and data analysis processes are presented in this chapter.

Population

The population of interest was the Corps of Cadets at Texas A&M University, College Station, Texas, consisting of approximately 1,800 undergraduate student members. Within this group are 30 outfit-level organizations, each led by a senior cadet. Participants in the Corps of Cadets undergo rigorous disciplinary and team-building activities intended to strengthen them both physically and mentally. Individuals choosing to become involved in the Corps of Cadets make a 24-hour a day commitment, in addition to their pursuit of undergraduate academic education.

Freshman and sophomore cadets must participate in Reserve Officer Training Corps (ROTC) courses in addition to courses in their field of study. Junior and senior cadets participate in ROTC courses only if on military scholarship or contract for future military service. Junior/senior cadets who are not under military scholarship or contract are referred to as Drills and Ceremonies (D&C) cadets. With the exception of ROTC enrollment, these cadets are full members and participants in all Corps of Cadets activities. Approximately one-third of graduating cadets are commissioned as military

officers. Although influenced by military career decisions, membership in the Corps of Cadets remains a voluntary decision.

As of September 17, 2004, the Corps of Cadets consisted of a total population of 1,807 cadets; of which 91% were male and 9% were female. Of the 30 units, 17 were gender integrated. Race/ethnic composition is shown in Table 2.

Table 2. Race/Ethnic Composition

<i>Race/Ethnicity</i>	<i>Percentage</i>
White	81.4%
Hispanic	12.6%
African American	1.8%
Asian or Pacific Islander	3.1%
American Indian or Alaskan Native	1.6%
Other	0.2%

By the time of data collection in April 2005, membership in the Corps of Cadets had decreased to 1,727. The 30 unit commanders and 100 cadets assigned to staff positions outside the individual units were excluded, resulting in a research population of 1,596. The population surveyed was 33.8% freshmen, 24.6% sophomores, 24.0% juniors, and 17.6% seniors.

Instrumentation

Affective Organizational Commitment

The ACNS instrument (Allen & Meyer, 1990) was initially developed on a sample of 256 full-time employees in three organizations. Factor analysis resulted in three factors, which accounted for 58.8, 25.8, and 15.4 percent of the total variance,

respectively. Reliability for each scale was found to be .87 for the ACS, .75 for the CCS, and .79 for the NCS. Therefore, Allen & Meyer (1990) suggest that each of the psychological states identified as commitment to the organization can be reliably measured.

Allen and Meyer (1996) conducted further evaluation of the construct validity of the three scales by reviewing research in which the scales had been used. Data from over 40 studies representing more than 16,000 employees were included in the evaluation. Both exploratory and confirmatory factor analytic studies supported initial findings that the three commitment measures loading on separate factors and that the measures are distinguishable from each another (Allen & Meyer, 1996). Internal consistency was demonstrated by median reliabilities for the ACS, CCS, and NCS of .85, .79, and .73, respectively (Allen & Meyer, 1996). Test–retest reliabilities ranged from .38 to .94, consistent with those reported for comparable measures (e.g. the OCQ, Mowday, et al., 1979). Of note, the lowest reliabilities were those involving commitment measures taken on the employees' first day in the organization (when knowledge of, and experience in, the organization is at its lowest), and the highest reliabilities reported were based on data collected during the latter part of the new employees' first year (Allen & Meyer, 1996). Applying this finding to the current study, data were collected near the end of the participants' academic year, suggesting reliability for the commitment measures for freshman as well as other classes.

Affective commitment was of particular interest to this research due to the voluntary nature of the organization being examined. An advantage of the ACS over the

OCQ is that it was written to assess only affective orientation toward the organization, and not employees' behavior or behavioral intentions (Allen & Meyer, 1990). Allen and Meyer (1996) found that correlations between the revised versions paralleled those found with earlier versions. Therefore, the revised 6-item version of the Affective Commitment Scale (Meyer et al., 1993) was used to measure the affective commitment of all cadets. Participants were asked to respond to each item on 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree), and total scores were computed by averaging across items.

Transformational Leadership Style

Bass and Avolio's (2000) Multifactor Leadership Questionnaire (MLQ) was used to measure the transformational leadership style of cadet unit leaders. The 45-item MLQ Form 5X-Short was used to measure the extent to which leaders engage in a full range of leadership behaviors, which can be categorized as transformational, transactional, or laissez-faire. Validation and cross-validation of the MLQ Form 5X has been conducted, with the validation consisting of 14 samples with a total of 2,154 raters, and cross-validation containing 5 samples totaling 1,706 raters (Bass & Avolio, 2000; Avolio, Bass, & Jung, 1999). In the initial validation study, reliabilities for the total items and for each leadership factor ranged from .74 to .94. Within the 20-item transformational leadership category, the intercorrelations among the five transformational component subscales ranged from .76 to .87 (Bass & Avolio, 2000; Avolio, et al., 1999).

A great deal of revision has occurred since the MLQ Form 1 was first used by Bass (1985). Criticism has been directed at previous versions of the MLQ (e.g., Bycio, et

al., 1995; Yukl, 1994) for failing to demonstrate the transformational leadership factor structure initially proposed by Bass and Avolio (1994). Further research using the MLQ-5X has shown it to be psychometrically sound (Avolio, Bass, & Jung, 1997, 1999; Bass, 1998; Bass & Avolio, 2000). The MLQ is the primary quantitative instrument to measure the transformational leadership construct (Lowe, et al., 1996).

All unit cadets were asked to complete the Rater version on their respective unit leader, responding to each item on 5-point scale ranging from 0 (not at all) to 4 (frequently, if not always). The average score resulting from the 20 items measuring cadet perception of their unit leader's transformational behavior was used in determining impact on organizational effectiveness. Five components are included in this scale: inspirational motivation, idealized influence—behaviors, idealized influence—attributes (attributed charisma), intellectual stimulation, and individualized consideration (Bass & Avolio, 2000). Considering transformational leadership as one 20-item scale is supported by prior research (e.g. Atwater & Yammarino, 1992; Dubinsky, Yammarino, & Jolson, 1995; Sosik & Megerian, 1999; Walumbwa, Orwa, Wang, & Lawler, 2005).

Organizational Effectiveness

Unit organizational effectiveness was determined by use of the General Moore Award scores for individual unit performance as calculated by the Office of the Commandant. This measure of organizational effectiveness was selected because of its ready availability and long-standing use in recognizing overall unit effectiveness within the Corps of Cadets. Under this system, units earn points in four categories: scholastic proficiency, military proficiency, recruiting and retention, and intramural

competition/extra-curricular involvement. The General Moore Award is given annually to recognize the outstanding company/squadron/battery-sized unit in the Corps of Cadets. To earn the General Moore Award, a company, squadron, or battery must achieve the highest cumulative total points that accrue in the categories listed above.

Additionally, effective performance in each General Moore Award category depends on the involvement and participation of all cadets, which Kim (2002) suggests is necessary for organizational effectiveness. As described above, the process and measurements used in assessing organizational effectiveness is appropriate to the Corps of Cadets and consistent with Cameron and Whetten's (1983) seven guides for organizational effectiveness discussed earlier.

Data Collection

The Corps of Cadets is organized into 30 outfit-level organizations. All current members of these units were surveyed with the 6-item ACS (Appendix C) and the 20-item transformational leadership subset of the MLQ-Rater (Appendix D). In addition to the data collected through the research instruments, self-report demographic information was collected in the following areas: corps classification, gender, race/ethnicity, unit membership, ROTC affiliation, scholarship/military contract status, and legacy affiliation (Appendix B). The General Moore Award unit scores were obtained from the Office of the Commandant.

Initial contact with the research population occurred in April 2005, via e-mail, using cadet e-mail addresses provided by the Office of the Commandant. Within the contact email, cadets were introduced to the research study and directed via hyperlink to

the web-based survey. Non-responders were sent additional invitations to participate in the study. Those agreeing to participate selected the hyperlink to the online survey instrument, which included the required Information Sheet (Appendix A). The web-based survey was available for a period of approximately three weeks. Perseus Survey Solutions (version 6) was used to conduct the web-based survey and facilitate data collection.

Data Analysis

SPSS for Windows (version 12.0.2) was used for the statistical analysis of all data resulting from this study. Factor analysis using principal components analysis (PCA) and varimax rotation were run on the results from both the 6-item ACS and the 20-item transformational leadership scale from the MLQ-Rater since they were used on a population different from their validation and confirmatory studies. Descriptive statistics were used to present the results, and analysis of variance (ANOVA) techniques were used to determine the significance of differences in affective commitment scores and perceived transformational leadership style based on the demographics of corps classification, gender, race/ethnicity, unit membership, ROTC affiliation, scholarship/military contract status, and legacy affiliation.

Path analysis using multiple linear regression was used to evaluate the hypothesized model. The relative impact of affective organizational commitment and transformational leadership style on unit organizational effectiveness was determined.

CHAPTER IV

ANALYSIS AND RESULTS

A summary and analysis of the data collected is presented in this chapter. Respondent demographics are presented and compared to the survey population. The results of inter-item correlation, factor analysis, and reliability analysis of the affective commitment and transformational leadership instruments are presented. Score means are presented by unit, along with General Moore Award scores for organizational effectiveness. Finally, the hypothesized causal model was subjected to path analysis using multiple linear regression.

Respondent Demographics

E-mail invitations were sent to the 1,596 unit members in the Corps of Cadets. As noted earlier, unit commanders and cadets assigned to staff positions outside the individual units were excluded from the research population. A total of 667 responses were received, 27 of which were duplicates and were removed from the response database. Additionally, incomplete responses were removed, resulting in 640 usable responses for the ACS (40.1%) and 610 usable responses for the transformational leadership subset of the MLQ (38.2%). When evaluating response rates, Roth and BeVier (1998) noted that conventional wisdom on good response rates on surveys ranged from 50% to as high as 80%, with several survey texts providing no guidelines. Given this number of overall responses, however, the results demonstrate a 95% confidence level with 3% error. Additionally, total responses are sufficient to detect small to medium effect sizes at the $\alpha = .05$ level for the statistical analyses being

conducted (Gall, Borg, & Gall, 1996). Cook, Heath, and Thompson (2000) noted that representativeness of the sample is more important the response rate. Analysis of the respondent demographics (see Table 3) using a chi-square goodness-of-fit test ($\alpha = .05$) indicates they are representative of the research population.

Table 3. Respondent Demographics

<i>Demographic</i>	<i>Category</i>	<i>Frequency</i>	<i>Respondent Percentages</i>	<i>Population Percentages</i>
Sample	Total number	640	100.0	40.1
Corps Classification	Freshman	211	33.0	33.8
	Sophomore	184	28.8	24.6
	Junior	146	22.8	24.0
	Senior	99	15.5	17.6
Gender	Male	570	89.1	91.0
	Female	70	10.9	9.0
Race/Ethnicity	White	532	83.1	81.4
	Hispanic	78	12.2	12.6
	African-American	5	.8	1.8
	Asian or Pacific Islander	17	2.7	3.1
	American Indian or Alaskan Native	4	.6	1.6
ROTC Affiliation	Army	188	29.4	–
	Navy-Marine Corps	113	17.7	–
	Air Force	159	24.8	–
	D&C	179	28.0	–
Legacy Affiliation	Yes	192	30.0	–
	No	445	69.5	–
Scholarship	None	130	20.3	–
	Military/ROTC	181	28.3	–
	Corps	389	60.8	–
	Academic	121	18.9	–
	Other	88	13.8	–

Note: Totals in some demographic groups do not total 640 or 100% due to non-response on some demographic questions. Totals in the scholarship demographic exceed 640 and 100% due to respondents indicating multiple scholarships. Demographic information was unavailable for ROTC affiliation, legacy affiliation, and scholarship categories.

Instrument Validation and Factor Analysis

The affective commitment and transformational leadership instruments used were evaluated by inter-item correlation, factor analysis, and reliability analysis. Results of these evaluations are presented for each instrument and compared to previous research.

Affective Organizational Commitment Scale

Inter-item correlations (see Table 4) among the six affective commitment questions ranged from $r = .239$ to $r = .704$, with all correlations significant at the .01 level. These results are consistent with validation studies presented earlier (Allen & Meyer, 1990 & 1996). A factor analysis using principal component extraction resulted in a single factor solution (see Table 5). The eigenvalue for this factor was 3.29, with a variance explained of 54.8%. Reliability analysis of the 6-item affective commitment scale produced a Cronbach's alpha coefficient of .813.

Table 4. Affective Commitment Scale Inter-Item Correlation

	<i>ACS-1</i>	<i>ACS-2</i>	<i>ACS-3</i>	<i>ACS-4</i>	<i>ACS-5</i>	<i>ACS-6</i>
ACS-1	1.000					
ACS-2	.378**	1.000				
ACS-3	.284**	.239**	1.000			
ACS-4	.353**	.298**	.626**	1.000		
ACS-5	.403**	.310**	.649**	.704**	1.000	
ACS-6	.473**	.345**	.474**	.601**	.608**	1.000

** Correlation is significant at the 0.01 level (2-tailed).

Table 5. Affective Commitment Scale Component Analysis

	<i>Component 1</i>
ACS-1	.619
ACS-2	.513
ACS-3	.753
ACS-4	.839
ACS-5	.857
ACS-6	.797

Transformational Leadership Scale

As previously mentioned, this 20-item transformational subscale consisting of five component subscales was used to represent perceived transformational leadership behavior. The five component subscales are Attributed Charisma (AC), Idealized Influence (II), Inspirational Motivation (IM), Intellectual Stimulation (IS), and Individual Consideration (IC).

Inter-item correlations among the 5 transformational leadership subscales (see Table 6) showed a high degree of correlation, ranging from $r = .749$ to $r = .857$, with all correlations significant at the .01 level. Reliability analysis of the transformational leadership scale in terms of the five subscales produced a Cronbach's alpha coefficient of .955. Reliability analysis of each of the five 4-item subscales produced Cronbach's alpha coefficients ranging from .812 to .896.

Table 6. Transformational Leadership Subscale Inter-Item Correlation

	<i>AC</i>	<i>II</i>	<i>IM</i>	<i>IS</i>	<i>IC</i>
AC	1.000				
II	.857**	1.000			
IM	.851**	.855**	1.000		
IS	.796**	.789**	.776**	1.000	
IC	.812**	.777**	.749**	.846**	1.000

** Correlation is significant at the 0.01 level (2-tailed).

Inter-item correlations among the 20 transformational leadership questions (see Table 7) ranged from $r = .306$ to $r = .818$, with all correlations significant at the .01 level. Reliability analysis of the 20-item transformational leadership scale produced a Cronbach's alpha coefficient of .966. These reliabilities and correlations are consistent with meta-analysis and validation studies presented earlier (Lowe, et al., 1996; Bass & Avolio, 2000; Avolio, et al., 1999).

A factor analysis using principal component extraction and varimax rotation with Kaiser normalization resulted in a non-parsimonious two factor solution for the 20-item portion of the MLQ (see Table 8). The eigenvalues were 12.36 and 1.01, with variance explained of 61.81% and 5.1%, respectively.

Table 7. Transformational Leadership Scale Inter-Item Correlation

	AC-1	AC-2	AC-3	AC-4	II-1	II-2	II-3	II-4	IM-1	IM-2	IM-3	IM-4	IS-1	IS-2	IS-3	IS-4	IC-1	IC-2	IC-3	IC-4	
AC-1	1.000																				
AC-2	.694**	1.000																			
AC-3	.814**	.745**	1.000																		
AC-4	.555**	.553**	.526**	1.000																	
II-1	.567**	.525**	.551**	.462**	1.000																
II-2	.683**	.637**	.702**	.525**	.588**	1.000															
II-3	.685**	.689**	.733**	.538**	.578**	.634**	1.000														
II-4	.709**	.675**	.698**	.576**	.586**	.731**	.626**	1.000													
IM-1	.655**	.555**	.578**	.432**	.507**	.559**	.575**	.546**	1.000												
IM-2	.685**	.668**	.701**	.489**	.602**	.725**	.675**	.666**	.644**	1.000											
IM-3	.727**	.669**	.710**	.590**	.568**	.715**	.669**	.718**	.656**	.731**	1.000										
IM-4	.706**	.699**	.712**	.587**	.548**	.676**	.678**	.715**	.638**	.698**	.739**	1.000									
IS-1	.627**	.657**	.646**	.472**	.511**	.581**	.629**	.636**	.504**	.617**	.627**	.626**	1.000								
IS-2	.624**	.599**	.601**	.374**	.464**	.559**	.574**	.569**	.501**	.576**	.570**	.572**	.596**	1.000							
IS-3	.618**	.646**	.657**	.453**	.496**	.567**	.618**	.643**	.485**	.608**	.648**	.629**	.681**	.624**	1.000						
IS-4	.636**	.651**	.662**	.496**	.518**	.623**	.611**	.694**	.481**	.636**	.683**	.655**	.677**	.617**	.790**	1.000					
IC-1	.681**	.724**	.709**	.498**	.552**	.703**	.654**	.668**	.515**	.688**	.692**	.667**	.681**	.627**	.695**	.698**	1.000				
IC-2	.561**	.560**	.585**	.394**	.373**	.432**	.539**	.482**	.413**	.472**	.460**	.552**	.533**	.472**	.528**	.512**	.518**	1.000			
IC-3	.403**	.410**	.422**	.307**	.369**	.363**	.447**	.387**	.306**	.350**	.400**	.396**	.411**	.415**	.500**	.411**	.430**	.470**	1.000		
IC-4	.710**	.664**	.730**	.506**	.515**	.640**	.616**	.697**	.504**	.628**	.692**	.672**	.653**	.601**	.799**	.818**	.699**	.541**	.460**	1.000	

** Correlation is significant at the 0.01 level (2-tailed).

Table 8. Transformational Leadership Scale Component Analysis

<i>Scale Items</i>	<i>Components</i>		<i>Rotated Components</i>	
	<i>1</i>	<i>2</i>	<i>1</i>	<i>2</i>
AC-1	.858	–	.748	.435
AC-2	.833	–	.660	.509
AC-3	.873	–	.718	.497
AC-4	.658	–	.642	–
II-1	.687	–	.657	–
II-2	.818	–	.790	.314
II-3	.813	–	.669	.463
II-4	.837	–	.720	.437
IM-1	.704	-.327	.758	–
IM-2	.823	–	.797	.315
IM-3	.855	–	.789	.375
IM-4	.841	–	.741	.416
IS-1	.784	–	.524	.605
IS-2	.739	–	.492	.573
IS-3	.814	.314	.454	.745
IS-4	.825	–	.541	.651
IC-1	.842	–	.644	.543
IC-2	.646	.365	–	.683
IC-3	.527	.546	–	.754
IC-4	.847	–	.555	.668

Note: Absolute values <.3 suppressed.

Demographic Results

Affective commitment and perceived transformational leadership scores were analyzed using ANOVA procedures to determine whether significant differences existed within each demographic category. The Levene Statistic was used to test for homogeneity of variances for all demographic categories. When equal variance was found, one-way ANOVA was performed with Tukey's HSD used for post hoc testing. When equal variance was not found, the Kruskal-Wallis test was used with Mann-Whitney U for post hoc testing.

Affective Organizational Commitment

The average level of affective organizational commitment within the Corps of Cadets was 6.04. In describing the application of their instrument scales, Meyer and Allen (1997) provide no guidance about expected, desired, average, or ideal means for affective commitment. Comparison, therefore, is between the demographic categories established for this research.

Affective organizational commitment means for each demographic category are shown in Table 9. Cadets exhibited unequal variance in the demographic of corps classification, with the difference in mean ranks significant at the .05 level between freshmen and seniors, and sophomores and seniors. Seniors reported the highest affective commitment (6.31), while sophomores reported the lowest (5.85). Effect size for corps classification was .02, indicating a small effect on affective commitment. Males and females also exhibited unequal variance in affective commitment, however no significant difference was found.

In the race/ethnicity demographic, equal variance was found in each category, with no significant differences noted in affective commitment scores. Additionally, no significant difference was found by regrouping the race/ethnicity demographic into white, Hispanic, and other categories. However, a significant difference ($\alpha = .05$) was found by regrouping into white/non-white categories. Both regroupings were tested by a chi-square goodness-of-fit test ($\alpha = .05$), which indicated they were representative of the research population. White cadets reported higher affective commitment (6.08), compared to non-white cadets (5.79). Effect size for white/non-white categories was .01,

indicating a small effect on affective commitment. These modest findings in personal demographic categories were consistent with the results of meta-analyses presented earlier (Matthieu & Zajac, 1990; Meyer, et al., 2002; Riketta, 2002).

Table 9. Affective Organizational Commitment by Demographics

<i>Demographic</i>	<i>Category</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Sample	Total number	640	6.04	1.16
Corps Classification	Freshman	211	6.05	1.02
	Sophomore	184	5.85	1.36
	Junior	146	6.06	1.16
	Senior	99	6.31	.97
Gender	Male	570	6.01	1.19
	Female	70	6.24	.85
Race/Ethnicity	White	532	6.08	1.15
	Hispanic	78	5.77	1.17
	African-American	5	5.80	1.39
	Asian or Pacific Islander	17	5.77	1.53
	American Indian or Alaskan Native	4	6.25	.50
	Non-White (grouped)	104	5.79	1.22
ROTC Affiliation	Army	188	5.78	1.35
	Navy-Marine Corps	113	6.14	1.04
	Air Force	159	6.05	1.10
	D&C	179	6.23	1.03
Legacy Affiliation	Yes	192	6.17	.97
	No	445	5.97	1.23
Scholarship	None	130	5.99	1.19
	Military/ROTC	181	5.99	1.23
	Corps	389	6.05	1.10
	Academic	121	6.18	1.10
	Other	88	6.17	1.03

Unequal variance was found in the categories of the ROTC affiliation demographic, and the difference in mean ranks was significant at the .05 level between Army cadets and Navy/Marine, Air Force, and D&C cadets. Army cadets reported the lowest affective commitment (5.78), while D&C cadets reported the highest (6.23). Effect size for ROTC affiliation was .02, indicating a small effect on affective commitment. Cadets also exhibited unequal variance in the legacy affiliation demographic, however no significant difference was found. Individuals in all five categories of the scholarship demographic displayed equal variance between having/not having the specific scholarship with the exception of the Military/ROTC scholarship. However, the differences in affective commitment between categories were not significant.

Transformational Leadership

The average level of transformational leadership perceived for unit leaders within the Corps of Cadets was 2.60. In discussing the use of their instrument, Bass and Avolio (2000) suggest an “optimal” profile of leadership behaviors measured with the MLQ will have a transformational score of 2.70. This would suggest that overall, cadets perceive less than ideal levels of transformational leadership behaviors.

The score means for perceived transformational leadership behaviors for each demographic category are shown in Table 10. Cadets exhibited unequal variance in their perception of transformational leadership behaviors for the corps classification demographic, and the difference in mean ranks was significant at the .05 level between classes. Freshman and seniors perceived higher levels of transformational leadership

(2.85 & 2.80) than sophomores and juniors (2.33 & 2.40). Effect size for corps classification was .06, indicating a small effect on perceptions of transformational leadership.

In the demographic groups of gender, race/ethnicity, ROTC affiliation, and legacy affiliation, cadets exhibited equal variance and no significant differences were found between categories. Additionally, no significant difference was found by regrouping the race/ethnicity demographic into white, Hispanic, and other categories, or into white/non-white categories.

Individuals in all five categories of the scholarship demographic also displayed equal variance between having/not having the specific scholarship. Differences were significant at the .05 level, with cadets on a Military/ROTC scholarship perceiving a lower level (2.46) of transformational leadership. Effect size for the scholarship demographic was .01, indicating a small effect on perceptions of transformational leadership.

Table 10. Transformational Leadership by Demographics

<i>Demographic</i>	<i>Category</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Sample	Total number	610	2.60	.98
Corps Classification	Freshman	204	2.85	.80
	Sophomore	171	2.33	1.06
	Junior	141	2.40	1.01
	Senior	94	2.80	.96
Gender	Male	542	2.57	.99
	Female	68	2.80	.88
Race/Ethnicity	White	506	2.61	.99
	Hispanic	75	2.54	.94
	African-American	5	2.16	.93
	Asian or Pacific Islander	17	2.53	.75
	American Indian or Alaskan Native	3	1.93	1.13
	Non-White (grouped)	100	2.50	.91
ROTC Affiliation	Army	179	2.53	1.02
	Navy-Marine Corps	108	2.67	.89
	Air Force	153	2.71	.94
	D&C	169	2.52	1.03
Legacy Affiliation	Yes	180	2.69	.96
	No	428	2.56	.99
Scholarship	None	122	2.55	.98
	Military/ROTC	176	2.46	1.02
	Corps	374	2.65	.97
	Academic	119	2.74	.91
	Other	87	2.71	.96

Unit Level Analysis

Units were assigned random numbers during data analysis to preserve confidentiality. The response frequencies and response percentages per unit are shown in Table 11. Response frequencies per unit ranged from 2 to 41, with unit response rates

ranging from 9.1% to 60.0%. At the time of data collection, the average unit size was 53 cadets, with unit membership ranging from 22 to 85 cadets. Analysis of the unit response rates using a chi-square goodness-of-fit test ($\alpha = .05$) indicated they are representative of the research population.

Affective Organizational Commitment, Transformational Leadership, and Unit Organizational Effectiveness

Unit means were calculated for cadet scores on affective commitment and transformational leadership and are presented in Table 12. Also presented are the unit scores on organizational effectiveness provided by the Office of the Commandant. Unit score means for affective commitment and transformational leadership were subjected to one-way ANOVA with Games-Howell procedure for post-hoc testing. Significant differences in score means across units were noted at the .05 level in both affective commitment and transformational leadership (see Table 13).

Correlations were calculated among the three constructs of affective commitment, transformational leadership, and organizational effectiveness (see Table 14). The effect size of these correlations was estimated using Cohen's (1969, 1992) guidelines, where $r = .10$, $.30$, and $.50$ represent small, medium, and large effect sizes, respectively (Spatz, 2001). The correlation of $r = .403$ between affective commitment and transformational leadership was significant at the .05 level. This medium to large positive correlation is consistent with previous research presented earlier (Meyer et al.; 2002). The non-significant correlation between affective commitment and organizational effectiveness was also consistent with previous meta-analysis considering independent

measures of overall performance (Allen & Meyer, 1996). The non-significant correlation between transformational leadership and organizational effectiveness was unexpected, and is inconsistent with meta-analytic results discussed earlier (Lowe et al., 1996).

Table 11. Responses by Unit

<i>Unit</i>	<i>Frequency</i>	<i>Percent of Sample</i>	<i>Unit Size</i>	<i>Percent of Unit Responding</i>
1	20	3.1	42	47.6
2	18	2.8	45	40.0
3	27	4.2	85	31.8
4	7	1.1	22	31.8
5	19	3.0	67	28.4
6	35	5.5	81	43.2
7	41	6.4	84	48.8
8	25	3.9	75	33.3
9	13	2.0	47	27.7
10	9	1.4	26	34.6
11	2	.3	22	9.1
12	29	4.5	62	46.8
13	24	3.8	57	42.1
14	39	6.1	65	60.0
15	34	5.3	71	47.9
16	26	4.1	67	38.8
17	12	1.9	45	26.7
18	12	1.9	32	37.5
19	8	1.3	33	24.2
20	17	2.7	45	37.8
21	37	5.8	78	47.4
22	10	1.6	25	40.0
23	27	4.2	76	35.5
24	17	2.7	56	30.4
25	39	6.1	73	53.4
26	19	3.0	41	46.3
27	28	4.4	53	52.8
28	13	2.0	24	54.2
29	10	1.6	34	29.4
30	23	3.6	63	36.5
Total	640	100.0	1,596	40.1

Table 12. Affective Organizational Commitment, Transformational Leadership, and Organizational Effectiveness by Unit

<i>Unit</i>	<i>Affective Commitment</i>			<i>Transformational Leadership</i>			<i>Organizational Effectiveness (General Moore Score)</i>
	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>	
1	20	5.16	1.46	20	2.99	.55	147.50
2	18	5.42	1.88	18	2.66	.96	124.00
3	27	6.72	.54	24	3.06	.85	235.75
4	7	6.00	1.02	6	1.89	1.10	164.50
5	19	6.60	.63	17	2.24	1.29	212.00
6	35	5.88	1.08	33	1.99	.99	172.25
7	41	6.12	.90	40	2.79	.90	254.50
8	25	6.23	.91	23	3.04	.69	169.00
9	13	6.27	.52	12	2.59	.81	160.50
10	9	6.81	.24	9	3.20	.61	158.75
11	2	6.83	.00	2	3.58	.60	51.50
12	29	5.36	1.92	28	2.49	1.23	111.75
13	24	5.88	1.30	24	2.53	1.01	162.00
14	39	5.76	1.33	36	2.92	.62	262.50
15	34	5.41	1.27	34	2.56	.95	212.50
16	26	5.86	1.08	26	2.15	1.17	240.50
17	12	6.07	1.55	12	2.21	1.18	113.50
18	12	5.00	1.78	10	2.13	.68	27.50
19	8	5.67	1.09	8	2.18	1.05	92.50
20	17	6.10	.98	16	2.58	.98	186.00
21	37	6.42	.65	37	2.65	.77	169.00
22	10	6.51	.67	9	3.31	.61	55.50
23	27	6.13	1.16	27	1.88	.92	143.00
24	17	6.41	.92	16	2.67	.93	234.50
25	39	6.48	.62	37	3.12	.76	166.50
26	19	5.89	.92	19	1.96	1.02	60.00
27	28	6.45	.61	23	3.07	.88	220.50
28	13	5.90	1.14	13	3.10	.92	113.50
29	10	6.25	.79	8	3.04	.74	35.50
30	23	6.25	.89	23	1.94	.65	178.00
Total	640	6.04	1.16	610	2.60	.98	–

Table 13. Significant Differences Between Unit Score Means

<i>Unit</i>	<i>Affective Commitment</i>	<i>Transformational Leadership</i>
	<i>Score means significantly different at .05 level from units...</i>	<i>Score means significantly different at .05 level from units...</i>
1	3, 10, and 11	6, 23, and 30
2	–	–
3	1, 6, 14, and 15	6, 23, and 30
4	–	–
5	15	–
6	10 and 11	1, 3, 8, 10, 14, 22, 25, and 27
7	10 and 11	23 and 30
8	–	6, 23, and 30
9	–	–
10	1, 6, 7, 14, 15, and 16	6, 23, and 30
11	1, 2, 6, 7, 14, 15, 16, and 26	–
12	–	–
13	–	–
14	3, 10, and 11	6, 23, and 30
15	3, 5, 10, 11, 21, 25, and 27	–
16	10 and 11	–
17	–	–
18	–	–
19	–	–
20	–	–
21	15	–
22	–	6, 23, 26, and 30
23	–	1, 3, 7, 8, 10, 14, 22, 25, and 27
24	–	–
25	15	6, 23, 26, and 30
26	11	22 and 25
27	15	6, 23, and 30
28	–	–
29	–	–
30	–	1, 3, 7, 8, 10, 14, 22, 25, and 27

Note: Significant differences determined by ANOVA with post hoc testing using Games-Howell procedure.

Table 14. Correlation Among Affective Organizational Commitment, Transformational Leadership, and Unit Organizational Effectiveness

	<i>Affective Commitment</i>	<i>Transformational Leadership</i>	<i>Organizational Effectiveness</i>
Affective Commitment	1.000		
Transformational Leadership	.403*	1.000	
Organizational Effectiveness	.181	-.036	1.000

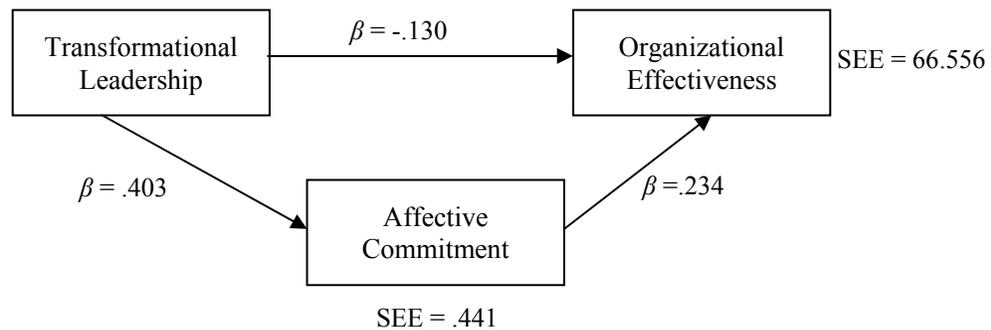
* *Correlation is significant at the 0.05 level (2-tailed).*

Path Analysis

The hypothesized model was analyzed using multiple linear regression. The resulting path coefficients (β) and standard errors of the estimates (SEE) are displayed in Figure 2. While the path coefficient between transformational leadership and affective commitment is consistent with the significant correlation reported earlier, the standard error of the estimate for affective commitment approaches the standard deviation of .473, indicating a high degree of error variance. Consistent with non-significant correlations reported above, non-significant path coefficients exist between transformational leadership and organizational effectiveness, and between affective commitment and organizational effectiveness. While these path coefficients show greater magnitude than the separate bivariate correlations, the standard error of the estimate associated with the predicted value for organizational effectiveness exceeds the standard deviation of 65.784, indicating a high degree of error variance.

It is clear from this analysis that the variables of transformational leadership and affective commitment were unable to predict organizational effectiveness through the hypothesized model.

Figure 2. Path Analysis – Impact of Transformational Leadership and Affective Commitment on Organizational Effectiveness



Summary

The affective commitment and transformational leadership instruments selected for this research were found to be valid and reliable for the population examined. Inter-item correlations and reliabilities were consistent with prior research. Significant differences were found for cadets on the affective commitment measure in the demographics of corps classification, ROTC affiliation, and legacy affiliation. In assessing the differences in cadets on perceived transformational leadership across demographic categories, significant differences were found only in the categories of corps classification and scholarship type.

Unit score means on affective commitment and transformational leadership were found to have a significant positive correlation, consistent with prior research. Extending

this relationship to organizational effectiveness through the hypothesized model, path coefficients were calculated. Analysis of the results indicates the hypothesized causal model was not supported by this research.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The main purpose of this study was to extend existing research on affective commitment, transformational leadership, and organizational effectiveness into the context of a voluntary organization. The impact of various demographic variables on affective organizational commitment and transformational leadership was explored. The constructs of affective commitment, transformational leadership, and organizational effectiveness were explored and a hypothesized model was proposed to explain their interrelationship. The new knowledge gained through this research increases understanding of these constructs and their interrelationship. Significant findings, research conclusions, recommendations and future research needs are presented in this chapter.

Findings

The results obtained from the ACS and MLQ-Rater in this study were consistent with the validation studies for these instruments, showing high reliabilities and strong inter-item correlations. The significant positive correlation found between the affective commitment and transformational leadership constructs was also consistent with prior research.

Consistent with much of the literature reviewed, few of the individuals in the selected demographic categories showed significant differences in score means for affective commitment and transformational leadership. Where significant differences were found, effect sizes were small, indicating only minor impact on overall levels of

affective commitment and perceptions of transformational leadership. In spite of their minor impact, the differences were explored for possible explanation.

Of particular note, freshman and seniors showed higher levels of both affective commitment and transformational leadership than did sophomores and juniors. This result is perhaps best explained by looking at how the Corps of Cadets operates. Freshmen cadets are the “life-blood” of the organization, and as such, much of the organization’s activities are focused on integrating them as an essential part of the unit, forging a personal bond between cadets, and creating a strong sense of unit loyalty and identity during their first year. Each of these elements has been shown to impact affective commitment and it is therefore no surprise that freshman cadets exhibit high levels of commitment. Seniors have invested four years in their respective units, and would logically be expected to have developed a strong sense of loyalty and unit identity. The lower affective commitment of sophomores and juniors might be explained by the current practice of limiting involvement with freshman cadets. Currently, a cadre of sophomore and junior cadets is selected within each unit to provide the majority of guidance, discipline, and personal interaction with the freshmen cadets. Those not selected to serve in the cadre have much more limited involvement. Perhaps this lack of direct involvement with freshman in the daily activities of the Corps of Cadets is disenfranchising sophomores and juniors, thereby impacting their level of commitment to the organization. Given the relationship between affective commitment and organizational satisfaction and retention presented earlier, disenfranchising cadets could lead to higher organizational attrition.

Another finding of concern is the significant difference found between white/non-white cadets in affective commitment. This difference may be due to variation in cultural norms across the different demographic groups, i.e. assimilation, socialization, or peer-group influences, or to practices of institutional or social isolation within the Corps of Cadets or the larger university environment. The Corps of Cadets is historically a predominantly white male organization, but efforts in recent years have focused on minority recruiting and retention. This emphasis is steadily improving the diversity within the Corps of Cadets, and Texas A&M University overall.

D&C cadets reported the highest level of affective commitment among ROTC affiliations, with Army cadets reporting the lowest. It is not surprising the D&C cadets, who have chosen to participate in the Corps of Cadets without ongoing military affiliation, would show high commitment, given the emotional and social attachment measured by affective commitment. The lower affective commitment among Army cadets would seem to indicate a systemic influence within the Army ROTC program, and further research is necessary.

The finding of no significant differences in cadets' affective commitment among the scholarship demographic is also important, since scholarships and/or military contracts were a possible source of "contamination" to the purely voluntary aspect of the Corps of Cadets. This form of compensation to the cadets was not shown to have an impact on affective commitment to the organization. Interestingly, however, cadets on military/ROTC scholarship did perceive the lowest level of transformational leadership among the scholarship demographic. A possible explanation to this difference is greater

exposure of these cadets to a wider range of leadership activities through mandatory ROTC courses and/or summer military activities.

While unexpected based on the literature review, this study found results similar to Ross and Offerman (1997), where they were unable to show linkage between transformational leadership and objective measures of organizational performance. In fact, analysis of the data in the present study revealed a non-significant correlation between transformational leadership and organizational effectiveness. While a significant positive correlation was found between transformational leadership and affective commitment, extending that relationship to organizational effectiveness through a hypothesized causal model was not supported. Further research is necessary to explore these results and identify underlying causes.

One possible explanation for the lack of support for the hypothesized model can be found in the demographics of the research population. Much of the research on affective commitment and transformational leadership presented earlier comes from an employment context, with an older, workforce-age population. In contrast, the demographics of this study, like Ross and Offerman (1997), were college students age 18 to 22. This brings into play the issue of cognitive development and the ability to discern between the higher order behavioral constructs associated with affective commitment and transformational leadership. Research in cognitive development first postulated by Piaget suggests that formal operational thought processes are being developed during this age range (Boulton-Lewis, 1997). Merriam and Caffarella (1991) noted the impact of social context and life experience on cognitive development as well,

areas of particular concern in a “closed” environment like the Corps of Cadets. It is possible that cadets’ level of cognitive development influences their self-reported levels of affective commitment and perceptions of transformational leadership behaviors.

Conclusions

One significant conclusion from this research is that existing research on affective commitment and transformational leadership can be extended and applied to the context of a voluntary organization, and similar results can be expected.

Additionally, the ACS and MLQ-Rater instruments were found to be valid and reliable in this study. However, the relationship revealed by this study between transformational leadership, affective commitment, and organizational effectiveness was inconsistent with prior research, and caution must be used regarding these relationships in a voluntary organizational context. The lack of support for the model serves as a stimulus for further research.

The inconsistency with prior research may be due to several factors. First, the compressed college-age demographic was different than the broader working-age demographic found in much of the previous research. In turn, this raises questions regarding the level of cognitive development of the research population and their ability to discern and evaluate higher order behavioral constructs. Additionally, the multi-dimensional and contextual nature of organizational effectiveness may be limiting the extension of research from one organization to another.

Recommendations

A significant positive relationship was found between an individual's affective commitment to the organization and their perception of the transformational leadership behaviors of their organization's leader. Building on this relationship, organizations such as the Corps of Cadets seeking to improve satisfaction, retention, and increased organizational participation might do well to encourage the learning and application of transformational leadership behaviors among their cadet leaders.

The Corps of Cadets should continue their efforts on minority recruitment and retention, paying particular attention to how minority cadets are incorporated into the activities that encourage emotional/social attachment and strengthen unit identity. This researcher also recommends increasing the level of involvement of sophomore and junior cadets outside the cadre in unit activities, particularly those involving freshmen cadets. While the need for a smaller group for control and standardization is appreciated, this practice may be disenfranchising sophomore and junior cadets, reducing their affective commitment. Perhaps a rotation of duties among all cadets would be more appropriate than full exclusion from or limited interaction with freshmen.

This researcher is unable to make recommendations on the ability of the independent variables of transformational leadership and affective commitment to predict the level of the dependent variable, organizational effectiveness. In fact, based on this research, no predictive ability or significant supporting relationship was found. While the General Moore Award scores were accepted as an appropriate measure of organizational effectiveness, the various component measures of academic proficiency,

military proficiency, recruiting/retention, and extra-curricular involvement may be working at cross-purposes. For example, cadet extra-curricular involvement may reduce involvement in unit activities, thereby decreasing military proficiency. Likewise, focusing attention on unit activities and extra-curricular involvement may adversely impact cadet academic performance. Since significant positive relationships have been found in prior research, however, it would be unwise to discount the role that affective commitment and transformational leadership might play in the organizational effectiveness of the Corps of Cadets, or voluntary organizations in general.

Limitations

The research population is a consideration for the generalizability of this study. Even though 30 units were represented in the analysis, the research participants were all members of a single voluntary student organization. Extending these results to different voluntary organizations might not be possible. While the demographics of the research participants were representative of the population, it is possible that different demographic percentages or the selection of other demographic categories might produce different results.

All data on cadet affective commitment and perceived transformational leadership behaviors for this study came from a self-report survey conducted at a single point in time. It is possible that common method variance influenced the results, and that data collected at different times or through different methodologies could produce different results.

The General Moore Award scores were accepted as a valid and appropriate measure of organizational effectiveness within the Corps of Cadets. Given the inconsistency of results compared to prior research, however, this measure should be reevaluated. While the long-standing use of the General Moore Award criteria seems to argue in its favor, calculation methodologies discovered during this study bear further scrutiny. The final award scores provided by the Office of the Commandant were continuous data, but during an intermediate calculation, unit scores had been converted from continuous data to ordinal values, thereby creating a loss of statistical information. This loss of information could have impacted results.

Future Research Needs

While successfully extending the application of affective commitment and transformational leadership research into a voluntary organization, new opportunities emerged for further study. In particular, research into the use of the General Moore Award scores for assessing organizational effectiveness, and the methodology by which they are calculated. The longitudinal measurement of variables would also be an area of further interest, to determine whether the scores for affective commitment and cadet perceptions of transformational leadership behaviors change over time.

Given that transformational leadership did not show a direct relationship to organizational effectiveness in this research, the impact of transactional leadership behaviors on this relationship is an area for further research. Additional research should also be conducted to evaluate the leadership training provided to cadets in terms of transformational and transactional behaviors. Greater understanding among cadets of the

leadership behaviors involved might produce different results on the MLQ-Rater. Comparison between cadet perceptions and unit leader self-perceptions of leadership behaviors would also be of interest.

The demographic categories selected for this study were intentionally limited to those readily available for comparison to the population. However, inclusion of other demographic categories such as age, academic major, individual academic performance, prior exposure to leadership situations, cadre status, as well as prior and/or current military experience would be of interest. Comparison with other voluntary student organizations across campus, or across institutions, would also be of value, providing greater understanding of the application of the constructs studied.

Finally, study on the normative and continuance dimensions of the commitment construct and their relationship to the full range of leadership behaviors could also prove informative in a voluntary context. Exploring the relationship of these constructs to organizational effectiveness might also provide an understanding of the relationships that remained undiscovered in the current study.

Summary

Overall findings from this study confirm that a significant positive relationship between affective commitment and perceived transformational leadership behavior exists in the voluntary organization examined. However, extending this relationship to organizational effectiveness through a hypothesized causal model was not supported. The ACS and MLQ-Rater instruments were found to be valid and reliable within the research population, providing a basis for further research in voluntary and/or student

organizations. The suggestions for future research offer additional opportunities to investigate the effects of other forms of commitment and leadership behaviors, as well as their possible relationship to organizational effectiveness.

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APPENDIX A
INFORMATION SHEET

Corps of Cadets Leadership Survey—Spring 2005

As a current member of the Corps of Cadets, you possess valuable insight about Texas A&M University's oldest student organization. You have been asked to participate in a research study which seeks to understand the influences of commitment and leadership style on organizational effectiveness in the Corps of Cadets. The research relates to a dissertation. You were selected to be a possible participant because of your current membership in the Corps of Cadets. All cadets currently assigned to units have been asked to participate in this study.

If you agree to participate in this study, you will be asked to complete an online survey. This study will only take approximately 10 minutes. There are no risks associated with this study beyond the possible inconvenience and time associated with completing the survey. While there are no direct benefits to you personally for participating in this study, it is hoped that your participation will increase the researcher's understanding of the Corps of Cadets as an effective leadership organization. You will receive no monetary compensation for your participation in this study.

This study is confidential. The information you provide in the survey will not be linked to you, and no browser cookies will be stored on your computer. The records of this study will be kept private. No identifiers linking you to the study will be included in any reports that might be published. Research records will be stored securely and only Mr. Terry Ekeland and Dr. Larry Dooley will have access to the records. Your decision whether or not to participate will not affect your current or future relations with Texas A&M University or the Corps of Cadets. If you decide to participate, you are free to refuse to answer any of the questions that may make you uncomfortable. You can withdraw at any time without penalty. You can contact Mr. Terry Ekeland and Dr. Larry Dooley with any questions about this study.

This research has been reviewed and approved by the Institutional Review Board - Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, the Institutional Review Board may be contacted through Ms. Angelia Raines, Director of Research Compliance, Office of the Vice President for Research, at (979) 458-4067 (araines@vprmail.tamu.edu).

By completing the online survey below, you hereby agree to participate in this research.

You may contact the following persons for information about this study:

Mr. Terry Ekeland, Principal Investigator
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APPENDIX B
DEMOGRAPHIC QUESTIONS

1. Corps Classification:
Freshman
Sophomore
Junior
Senior
2. Gender:
Male
Female
3. Race/Ethnicity:
White
Hispanic
African-American
Asian or Pacific Islander
American Indian or Alaskan Native
4. ROTC affiliation:
Army
Navy-Marine Corps
Air Force
D&C
5. Scholarships:
None
Military Contract / ROTC
Corps
Academic
Other
6. Unit:
(fill in the blank)
7. Legacy affiliation: Have any members of your immediate or extended family been members of the Corps of Cadets?
Yes
No

APPENDIX C
AFFECTIVE COMMITMENT SCALE

AFFECTIVE COMMITMENT SCALE*Meyer, Allen, & Smith (1993)*

1. I would be very happy to spend the rest of my time in the Corps of Cadets with this unit.

Strongly Disagree
Moderately Disagree
Slightly Disagree
Neither Disagree nor Agree
Slightly Agree
Moderately Agree
Strongly Agree

2. I really feel as if this unit's problems are my own.

Strongly Disagree
Moderately Disagree
Slightly Disagree
Neither Disagree nor Agree
Slightly Agree
Moderately Agree
Strongly Agree

3. I do not feel a strong sense of "belonging" to my unit.

Strongly Disagree
Moderately Disagree
Slightly Disagree
Neither Disagree nor Agree
Slightly Agree
Moderately Agree
Strongly Agree

4. I do not feel "emotionally attached" to this unit.

Strongly Disagree
Moderately Disagree
Slightly Disagree
Neither Disagree nor Agree
Slightly Agree
Moderately Agree
Strongly Agree

5. I do not feel like “part of the family” at my unit.

Strongly Disagree
Moderately Disagree
Slightly Disagree
Neither Disagree nor Agree
Slightly Agree
Moderately Agree
Strongly Agree

6. This unit has a great deal of personal meaning to me.

Strongly Disagree
Moderately Disagree
Slightly Disagree
Neither Disagree nor Agree
Slightly Agree
Moderately Agree
Strongly Agree

APPENDIX D
SAMPLE ITEMS, MULTIFACTOR LEADERSHIP QUESTIONNAIRE –
RATER FORM

SAMPLE ITEMS**MULTIFACTOR LEADERSHIP QUESTIONNAIRE – RATER FORM ******Attributed Charisma (Idealized Influence - Attributed)***

10. Instills pride in me for being associated with him/her.

Not at all
Once in a while
Sometimes
Fairly often
Frequently, if not always

Idealized Influence (Behavior)

6. Talks about their most important values and beliefs.

Not at all
Once in a while
Sometimes
Fairly often
Frequently, if not always

Inspirational Motivation

9. Talks optimistically about the future.

Not at all
Once in a while
Sometimes
Fairly often
Frequently, if not always

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Intellectual Stimulation

8. Seeks differing perspectives when solving problems.

Not at all
Once in a while
Sometimes
Fairly often
Frequently, if not always

Individual Consideration

15. Spends time teaching and coaching.

Not at all
Once in a while
Sometimes
Fairly often
Frequently, if not always

VITA

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Education

- Ph.D. Educational Human Resource Development, December 2005
Texas A&M University, College Station, TX
- M.S. Adult, Occupational & Continuing Education, July 1993
Kansas State University, Manhattan, KS
- M.S. Telecommunications Systems Management, March 1990
Naval Postgraduate School, Monterey, CA
- B.S. Nuclear Engineering, August 1978
Texas A&M University, College Station, TX

Professional Experience

- 1999 – Employee Development Coordinator, Computing & Information Services
Texas A&M University, College Station, TX
- 1996 - 1999 Senior Training Specialist, Human Resources
The Texas A&M University System, College Station, TX
- 1994 - 1996 Director, Adult & Continuing Education
Blinn College, Bryan, TX
- 1992 - 1994 Instructor / Author
US Army Command & General Staff College, Fort Leavenworth, KS
- 1990 - 1992 Communications / Tactics Department Head *
VQ-3, NAS Barbers Point, HI
- 1988 - 1990 Graduate Student
Naval Postgraduate School, Monterey, CA
- 1986 - 1988 Avionics Division Officer; Training Officer *
VQ-4, NAS Patuxent River, MD
- 1985 - 1986 Officer Programs Inspector
Naval Recruiting Standardization and Audit Team, Orlando, FL
- 1982 - 1985 Officer Programs Department Head
Naval Recruiting District, Dallas, TX
- 1979 - 1982 Airborne Communications Officer Evaluator; Special Projects Officer *
VQ-4, NAS Patuxent River, MD
- 1978 - 1979 Naval Flight Officer Student

* Additionally performed flight duties as Mission Commander, Airborne Communications Officer, and Navigator on EC-130Q and E-6A TACAMO strategic communications aircraft.