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Pepperdine University
Graduate School of Education and Psychology

THE RELATIONSHIP BETWEEN ATTACHMENT THEORY AND
TRANSFORMATIONAL LEADERSHIP IN
CALIFORNIA COMMUNITY COLLEGE CHIEF EXECUTIVE OFFICERS

A dissertation submitted in partial satisfaction
of the requirements for the degree of
Doctor of Education in Organizational Leadership

by

Joe Wyse

April, 2014

Kent Rhodes, Ed.D. – Dissertation Chairperson

This dissertation, written by

Joe Wyse

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

Doctoral Committee:

Kent Rhodes, Ed.D., Chairperson

Doug Leigh, Ph.D.

Kathleen Mahar, Ed.D.

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TABLE OF CONTENTS

	Page
LIST OF TABLES	vii
LIST OF FIGURES	ix
DEDICATION	x
ACKNOWLEDGEMENTS	xi
VITA	xiii
ABSTRACT	xiv
Chapter One: Introduction and Background	1
Background of Leadership Theory	1
Background of Attachment Theory	2
Attachment and Leadership	3
Problem Statement	5
Purpose of the Study	5
Research Questions	6
Importance of the Study	6
Study Limitations	8
Definition of Key Terms and Concepts	9
Organization of the Study	13
Chapter Two: Literature Review	15
Major Leadership Theories	16
Eight Approaches to Understanding Leadership	16
The Trait Approach	16
The Skills Approach	18
The Style Approach	20
The Situational Approach	23
Contingency Theory	25
Path-Goal Theory	26
Leader-Member Exchange Theory	28
Transformational Leadership	30
Transformational Leadership and Organizational Effectiveness	33
Transformational Leadership and Education	35
Measuring Transformational Leadership	37

Attachment Theory	40
Origins and Foundations of Attachment Theory	41
The Father of Attachment Theory: John Bowlby	41
The Contribution of Mary Salter Ainsworth	49
Attachment Theory Applied to Adult Relationships	52
Infant Attachment Compared to Adult Attachment	53
Adult Romantic Relationships and Attachment	54
Adult Attachment in Non-Romantic Relationships	56
Stability of Adult Attachment	59
Self-Report Measurements of Adult Attachment	62
Adult Attachment and Leadership	69
Attachment Theory and the Workplace Setting	73
Transformational Leadership and Attachment	77
Conclusion	81
 Chapter Three: Methodology and Procedures	 82
Restatement of the Research Questions	82
Research Design	83
Population and Sample	83
Characteristics Studied	84
Instrumentation	85
Leadership Practices Inventory (LPI)	86
Scoring of the LPI	86
Reliability of the LPI	88
Validity of the LPI	89
Experiences in Close Relationships Scale (ECR)	89
Scoring of the ECR	90
Reliability of the ECR	92
Validity of the ECR	93
Data Collection Procedures	94
Protection of Human Subjects	95
Demographic Survey	96
Data Analysis	96
Summary	98
 Chapter Four: Results	 99
Characteristics of Survey Respondents	99
Analysis of Survey Data	101
Answering the Research Questions	102
Research Question One	102
Research Question Two	104
Research Question Three	104
Research Question Four	105
Summary	119

Chapter Five: Discussion	121
Restatement of the Research Questions.....	121
Literature that Supports the Findings	122
Literature that Does Not Support the Findings.....	125
Synthesis of the Literature as it Relates to the Study	128
Conclusions and Implications.....	131
Policy Recommendations.....	133
Practitioner Recommendations	135
Recommendations for Future Research	136
Final Summary.....	139
REFERENCES	142
APPENDIX A: Experiences in Close Relationships Scale (ECR).....	188
APPENDIX B: Non-Copyrighted Portion of the Survey	191
APPENDIX C: Permission to use the Leadership Practices Inventory	198
APPENDIX D: First Communication to Participants.....	199
APPENDIX E: Second Communication to Participants.....	201
APPENDIX F: Third Communication to Participants.....	203
APPENDIX G: IRB Approval.....	205
APPENDIX H: Completion Certificate in Protection of Human Subjects.....	207
APPENDIX I: California Community College System Chancellor’s Approval	208

LIST OF TABLES

	Page
Table 1. Means and Standard Deviations of Leaders' Self-Reported LPI Scores from Kouzes and Posner (2002b, 2012b)	87
Table 2. Data Analysis Chart	97
Table 3. Descriptive Statistics for Selected Variables (N = 74)	100
Table 4. Psychometric Characteristics for the Summated Scale Scores (N = 74)	101
Table 5. Inter-Correlations Among the Characteristics of Transformational Leadership (N = 74)	102
Table 6. Pearson Product-Moment Correlations for Selected Variables with Attachment Scores (N = 74)	103
Table 7. Prediction of Avoidant Attachment Based on the LPI <i>Model the Way</i> Score After Controlling for Selected Variables (N = 74)	106
Table 8. Prediction of Avoidant Attachment Based on the LPI <i>Inspire a Shared Vision</i> Score After Controlling for Selected Variables (N = 74)	107
Table 9. Prediction of Avoidant Attachment Based on the LPI <i>Challenge the Process</i> Score After Controlling for Selected Variables (N = 74)	108
Table 10. Prediction of Avoidant Attachment Based on the LPI <i>Enable Others to Act</i> Score After Controlling for Selected Variables (N = 74)	109
Table 11. Prediction of Avoidant Attachment Based on the LPI <i>Encourage the Heart</i> Score After Controlling for Selected Variables (N = 74)	110
Table 12. Prediction of Avoidant Attachment Based on the LPI Total Score After Controlling for Selected Variables (N = 74)	111
Table 13. Prediction of Anxiety Attachment Based on the LPI <i>Model the Way</i> Score After Controlling for Selected Variables (N = 74)	112
Table 14. Prediction of Anxiety Attachment Based on the LPI <i>Inspire a Shared Vision</i> Score After Controlling for Selected Variables (N = 74)	113
Table 15. Prediction of Anxiety Attachment Based on the LPI <i>Challenge the Process</i> Score After Controlling for Selected Variables (N = 74)	114

Table 16. Prediction of Anxiety Attachment Based on the LPI <i>Enable Others to Act</i> Score After Controlling for Selected Variables (N = 74).....	115
Table 17. Prediction of Anxiety Attachment Based on the LPI <i>Encourage the Heart</i> Score After Controlling for Selected Variables (N = 74).....	116
Table 18. Prediction of Anxiety Attachment Based on the LPI Total Score After Controlling for Selected Variables (N = 74).....	117
Table 19. Partial Correlations for the Relationships Between the Transformational Leadership Scores and the Attachment Scores After Controlling for the Demographic Variables (N = 74).....	118

LIST OF FIGURES

	Page
Figure 1. Bartholomew's (1990) four-category diagram.....	66
Figure 2. Bartholomew's (1990) four-category diagram as adapted by Mikulincer and Shaver (2007a).....	67

DEDICATION

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VITA

EDUCATION

Ed.D. candidate, Pepperdine University, Emphasis: Organizational Leadership
 M.A., Trinity International University, December, 1997, Emphasis: New Testament
 B.A., Kenyon College *magna cum laude*, May, 1990, Major: Physics

EMPLOYMENT

Shasta-Tehama-Trinity Joint Community College District

- Superintendent/President (August 2011 to Present)
- Vice President of Administrative Services (March 2007 to August 2011)

Trinity International University, California Regional Center

Trinity Law School and Trinity Graduate School

- Executive Director (~May 2004 to February 2007)
- Associate Dean of Administration (~July 2000 to ~May 2004)
- Assistant Dean of Administration (~September 1998 to ~July 2000)
- Director of Enrollment Services (July 1996 to ~September 1998)

Trinity International University, Deerfield, Illinois Campus

Trinity Evangelical Divinity School

- Associate Director of Admissions (~May 1994 to July 1996)
- Assistant Director of Admissions (~December 1992 to ~May 1994)
- Admissions Counselor (October 1991 to ~December 1992)

PUBLICATIONS AND PRESENTATIONS

- Wyse, J. E. (May, 2011). *Going solar: Lessons learned*. Presented at the Association of Chief Business Officers (ACBO) Conference, CA.
- Wyse, J. E. (October, 2009). *The economics of going solar*. Presented at the Association of Chief Business Officers (ACBO) Conference, CA.
- Wyse, J. E. (April, 2009). *The new Shasta College green*. Presented at the Shasta College Sustainability Conference, Redding, CA.
- Fugitt, G., Madgidi, F., Stachowiak, B., Stachowiak, D., & Wyse, J. E. (February, 2007). *Exploring Christian leaders in learning environments*. Paper presented at the Hawaii International Conference on Education, HI.
- Wyse, J. E. (1997). *The structure of the Sermon on the Mount and its relationship to interpretation* (Unpublished master's thesis). Trinity International University, Deerfield, IL.
- Wyse, J. E. & Collings, P.J. (1992). Light scattering in the isotropic phase of highly chiral liquid crystals. *Physical Review A*, 45(4).
- Ennis, J., Wyse, J. E., & Collings, P. J. (1989). Optical activity measurements at long wavelengths in the blue phases of highly chiral liquid crystals. *Liquid Crystals*, 5(3), 861-869. doi:10.1080/02678298908026392
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ABSTRACT

This study examines a relatively new area of investigation: the relationship between attachment theory (Bowlby, 1973, 1980, 1982) and transformational leadership theory. Using self-report surveys and controlling for demographic variables, California community college chief executive officers' (CEOs) attachment styles and transformational leadership characteristics are measured and the potential relationship between them examined (N=74). The two measures used are Kouzes and Posner's (2002a) Leadership Practices Inventory (LPI) and Brennan, Clark, and Shaver's (1998) Experiences in Close Relationships Scale (ECR).

No significant correlation between attachment scores and the demographic variables was found in the study. Three moderate strength positive correlations were found between LPI scores and the demographic variables: between age and the LPI *Enable Others to Act* score, between female CEOs and the LPI *Challenge the Process* score, and between female CEOs and the LPI total score. The analysis demonstrated moderate correlations between the two attachment scales and the five transformational leadership characteristics as well as the LPI total score, with all 12 resulting correlations being negative and significant at the $p < .05$ level both before and after controlling for demographic variables.

The moderate correlation found in this study between more securely attached leaders and their self-assessed transformational leadership style found provides insight into the complex fields of leadership study and personality theory. Implications include the possibility of incorporating attachment and leadership measures into employee selection to better match desired styles to the organization's needs. Individual leaders may also be able to leverage the relationship explored in this study to further their personal leadership development.

Chapter One: Introduction and Background

Recent research has begun examining the relationship between two fields of study: leadership theory and the psychology of personal relationships. The importance of leadership is almost unquestioned: nations and organizations have risen or failed as a result of the abilities and qualities of those leading them (Sternberg, 2007). Leadership, however, has been a subject much neglected in the field of psychology, so much so that in a special issue on leadership in the journal *American Psychologist*, Sternberg (2007) writes that “many students of psychology are relatively unfamiliar with the literature on leadership” (p. 1). Linking the psychology of personal relationships to leadership helps provide understanding regarding the ideas extolled by Bennis (2007) that “any person can aspire to leadership. But leadership exists only with the consensus of followers” (p. 3).

One specific bridge between these fields applies the understanding of close, personal relationships as seen through attachment theory to the relationship between leaders and followers as seen through the lens of transformational leadership theory. It is this relatively new area of investigation to which this study provides additional evidence of the complex interplay of the relationship between followers. This, in turn, helps in the understanding of leadership in general.

Background of Leadership Theory

The demand for effective leadership appears to emanate from every institution, whether public or private. Educational institutions, government, and private industry all seek leaders who will make the greatest improvements compared to their peers. This demand “has resulted in a burgeoning of academic programs in leadership studies throughout the country” (Northouse, 2004, p. ix). However, there has been no consensus on what this elusive concept of leadership means, let alone how it is measured or developed over time. Indeed, in 1978 Burns asserted that

“if we know all too much about our leaders, we know far too little about *leadership*. We fail to grasp the essence of leadership that is relevant to the modern age and hence we cannot agree even on the standards by which to measure, recruit or reject it” (pp. 1-2). Burns continues his critique by pointing out that “one of the most serious failures in the study of leadership has been the bifurcation between the literature on leadership and the literature on followership” (p. 3).

The focus of much of the study of leadership, even in the 30 years since Burns wrote this indictment, continues along the path of studying traits and personal histories of great leaders: the political and the famous. There has been some shifting, however, to the examination the idea that leadership can come from anywhere in an organization and that personal leadership development is possible (Bennis, 2007). Especially notable in this line of thinking are those who have developed Burns’ ideas on transformational leadership (Burns, 1978, 2003). Bass and Riggio (2006) tout the theory of transformational leadership as the “approach of choice for much of the research and application of leadership theory” (p. xi). This may be a result of the primary focus on the way in which transformational leadership theory attempts to explain how leaders inspire, empower, and influence followers.

Background of Attachment Theory

Attachment theory was developed and explored primarily through the efforts of two people: John Bowlby and Mary Salter Ainsworth. Ainsworth (1969) explains that Bowlby’s development of attachment theory stems from the idea that there must be “some relatively stable behavioral systems” (p. 999) that have developed to ensure survival of infants through the long period in which infants are dependent on parental care for survival. Bowlby’s attachment theory is fully explored in three books focusing on attachment (1969, 1982), separation (1973) and loss

(1980). These three books were planned as a series, and are best seen as a trilogy (Ainsworth & Bowlby, 1991). According to Bretherton (1992), although Bowlby (1973, 1980, 1982) laid the foundation for the tenets of attachment theory, Mary Salter Ainsworth empirically tested his ideas and extended them. Ainsworth's 1967 study of infants in Uganda served as the first empirical study of Bowlby's attachment theory. It also explores the idea of the attachment figure serving as the infant's secure base. The research related to attachment remained focused primarily on infant-mother attachment patterns, attachment in older children and adolescents, and individual differences in these attachment patterns from the late 1960s through the early-to-mid 1980s. During this period of time, attachment theory became an accepted psychological approach to help in the understanding of human relationships, especially in the treatment of children (from infant/parent to adolescent/parent relationships). By 1994 Perlman and Bartholomew assert that "attachment has become a central concept in psychology" (p. 1).

The idea that attachment theory could inform the understanding of adult relationships was brought to the foreground by Hazen and Shaver (1987), who were among the first to apply attachment theory to adult relationships. Their focus is on using attachment theory as a basis for understanding romantic love relationships. The kernel of their idea "is that romantic love is a biological process designed by evolution to facilitate attachment between adult sexual partners who, at the time love evolved, were likely to become parents of an infant who would need their reliable care" (p. 523). Support for this is found from Ainsworth (1989), where she asserts that attachment bonds in "long-lasting interpersonal relationships" likely include "bonds with other kin, sexual pair bonds, and the bonds that may occur between friends" (p. 709).

Attachment and Leadership

The writings of Kouzes and Pozner (1993, 1999, 2002a, 2002b, 2006, 2010, 2011, 2012a,

2012b) have done much to popularize and influence the way in which assessment and development of personal leadership is studied by focusing on the relationship to followers. Kouzes and Posner assert that “leadership is a relationship. It’s a relationship between those who aspire to lead and those who choose to follow” (2006, p.48). It is this kind of focus on the relationship between leaders and followers that has begun to bridge the gap between two major social science fields: leadership study and the psychology of personal relationships (Kouzes & Posner, 2002a; Mayseless, 2010; Popper, 2004a). This focus, together with the new focus on applying attachment theory to adult relationships, sets the stage for merging these fields (Mikulincer & Shaver, 2007a; Popper, 2004a, 2004b; Popper, Mayseless, & Castelnovo, 2000; Shaver & Mikulincer, 2010). Perhaps one of the best foundations laid for linking these theories stems from an article by Hazen and Shaver (1990) which argues for examining the relationship between love and work. In this article they apply attachment ideas to the work setting, especially the idea that “work is functionally similar to what Bowlby calls ‘exploration,’ that adult attachment supports work activity just as infant attachment supports exploration” (p. 270). They view attachment theory as a valid approach to understanding behaviors and attitudes at work, which is the setting where leadership theory is most often explored. Further, Leaders can be seen to function as attachment figures to their followers (Popper & Mayseless, 2003; Popper & Mayseless, 2007). Recent attention in research linking these two areas prompted Mayseless (2010) to write that “beyond close personal relationships, attachment theory has been successfully applied to one of the most central social domains: leadership processes and leader-follower relationships” (p. 271).

Problem Statement

California community colleges are in the midst of a struggle to maintain their open access mission despite the historic cuts in State funding and the reduction of educational opportunities (Murillo, 2010). In the midst of this crisis in education, senior leadership officials among community colleges are attempting to minimize the impact felt by their students. This is in spite of the actions taken by other four-year public systems in California to cut enrollment and raise tuition, thereby making higher education less accessible. Further, similar actions by other systems have increased demand on the community college system.

During these historically difficult times, the leaders of California's community colleges are attempting to manage the crisis by making changes in their organizations. A better understanding of leadership behaviors and characteristics they exhibit may help them be more effective in leading their organizations through this crisis.

Attachment theory provides one way in which leaders may gain understanding in their personal relationship interactions and effectiveness in leading. Knowledge of transformational leadership characteristics, as understood through Kouzes and Posner's (2002a) five practices of exemplary leadership, also aids in the understanding and the improvement of desired outcomes. In other words, leaders who understand their own attachment orientation may be able to improve, through the five practices of leadership, their effectiveness in leading their organizations through crisis and change.

Purpose of the Study

The purpose of this study is to identify the extent to which, if at all, adult attachment has a relationship with transformational leadership characteristics among current and former California community college Presidents, Superintendent/Presidents and Chancellors (hereafter

referred to as community college CEOs). In addition, demographic differences among community college CEOs related to these variables are also examined.

Research Questions

The study focuses on the following research questions:

1. To what extent, if at all, is there a relationship between current and former community college CEOs' self-reported attachment, each of the five characteristics of transformational leadership, and overall transformational leadership?
2. To what extent, if at all, are there differences between the self-reported attachment scores of current and former community college CEOs' with regard to various demographic variables?
3. To what extent, if at all, are there relationships between five characteristics of transformational leadership, overall transformational leadership, and various demographic variables among current and former community college CEOs?
4. After controlling for demographic variables, to what extent, if at all, are there relationships between self-reported attachment, five characteristics of transformational leadership, and overall transformational leadership among current and former community college CEOs?

Because the literature regarding these variables was inconclusive, a directional alternative hypothesis was utilized and therefore the "null hypothesis" was adopted.

Importance of the Study

This study contributes to the literature applying attachment theory to transformational leadership theory. This study expands the base of knowledge in one of the areas of needed future research noted by Simpson and Rholes (2010). They state that "during the next decade, more

concentrated attention should be devoted to core normative processes underlying the attachment system, especially with regard to attachment figures other than parents or romantic partners (e.g., close friends, siblings, mentors and mentees)” (p. 176). Additionally, Popper and Mayseless (2003) list the study of attachment behaviors in relationship to the “developmental and dynamic psychological aspects of leadership” (p. 59) as one their recommended areas for future study. Simpson and Rholes (2010) also assert that further study should be done to gain understanding on “how both partners in an attachment relationship affect one another” (p. 177). This study seeks to address these areas of suggested future research.

In their list of fields in which applied attachment research is being extended, Shaver and Mikulincer (2010) include studying leader-follower relationships in light of attachment. They indicate that in this area of study “the prospects for novel research are numerous” (p. 170). Baumeister and Leary (1995) posit that the need to belong is a fundamental motivation for humans and is accomplished through the formation of interpersonal attachments: “It seems fair to conclude that human beings are fundamentally and pervasively motivated by a need to belong, that is, by a strong desire to form and maintain enduring interpersonal attachments” (p. 522). This study adds to the literature focused on understanding this need to belong in human relationships.

The findings may help community college CEOs assess effectiveness in their leadership in light of the way in which they approach their personal and work relationships. It may also inform the way in which attachment relationships in California community college senior leadership affect the ability of leaders to apply and improve Kouzes and Posner’s (2002a) five practices of transformational leadership. Considering the current economic challenges facing public education in California, this study may provide valuable information to leaders of

community colleges as they guiding their institution through change and may help result in stronger institutions to serve California in years to come.

Study Limitations

This study has a number of limitations. It focuses on current and former California community college CEOs: presidents and chancellors of the 112 colleges in 72 districts throughout the state. Although this gives perspective to other educational institutions with similar characteristics, the need remains for similar research in other types of educational institutions, such as private colleges, for-profit colleges, public universities, and private universities. Additional research is also needed to examine other types of institutional settings, such as in business or government.

This study is limited to California community colleges. It does not attempt to include the effects associated with geographic or cultural differences and may not be generalized to public community colleges in other regions in the United States or around the world. Additional limitations of this study may exist since it focuses on self-reported attachment styles and leadership characteristics in individual leaders. The attachment styles of the direct reports are not measured; neither are any effects of the team inter-relationships as related to attachment and leadership styles measured. Most California community college leadership structure has administrative teams consisting of four to eight members who report to the chief executive. The dynamics of these administrative teams could influence individual attachment to the leaders being studied. Such influence is beyond the scope of this study.

Another limitation to this study is that it is cross-sectional and does not attempt to control for the possibility of attachment or leadership styles changing over time. The data for this study were collected at a single point in time and are not longitudinal in nature. Additionally, the scope

of this study does not attempt to include the extent to which, if any, that infant attachment may be linked to adult attachment classifications. Bartholomew (1990) studied the idea “that adult avoidance of intimacy can be understood as a disturbance in the capacity to form interpersonal attachments which stems from the internalization of early adverse experiences within the family” (p. 149). This study also does not attempt to examine the possible effects of infant experiences or ability to securely attach in adulthood, and hence the possible effect on leader-follower relationships.

Definitions of Key Terms and Concepts

This section provides definitions of key terms used in this study from the social science fields of psychology and leadership studies.

Attachment theory is the general description of the psychological theory that describes the relationship between a dyadic pair of individuals who have a close relationship. The primary close relationship that gave rise to attachment theory is that between mother-figure and infant. It can also be a close relationship between fathers and their offspring, siblings, other relatives, best friends, romantic partners, and perhaps others. Attachment “motivates children and adults to seek safety and security through close contact with attachment figures” (Simpson & Rholes, 2010, p. 173).

Attachment styles are categories of attachment behaviors. This study uses the terms and definitions for attachment styles based upon the Experiences in Close Relationships (ECR) scale (Brennan et al., 1998). This tool uses two dimensions to classify a person’s attachment style: avoidance and anxiety. The degree to which avoidance and anxiety are exhibited in a person’s attachment orientation allow for the following four categories:

- *secure attachment* for low avoidance and low anxiety

- *avoidant attachment* for high avoidance and low anxiety
- *anxious-ambivalent attachment* for low avoidance and high anxiety
- *disoriented/disorganized attachment* for high avoidance and high anxiety

(Brennan et al., 1998).

Challenge the Process is one of Kouzes and Posner's (2002a) five practices common to the best practices of leadership. The leader's main contribution in challenging the process is thought to be "in the recognition of good ideas, the support of those ideas, and the willingness to challenge the system to get new products, processes, services, and systems adopted" (p. 17).

A *chancellor* is the chief executive officer (CEO) of a multi-college district in the California community college system.

A *Chief Executive Officer (CEO)* of a California community college for this study is considered to be a current or former president of a college in a multi-college district, a current or former chancellor of a multi-college district, or a current or former superintendent/president of a single-college district.

Demographic variables in this study include (1) sex, (2) age, (3 through 5) position title (dummy coded into three separate dichotomous variables: chancellor, president, and superintendent/president), (6) whether the person is a current or former CEO, (7) years employed in higher education, (8) years employed as a CEO in a community college setting, and (9) years in present position or, if a former CEO, the number of years in the last CEO position held. These seven demographic variables were expanded to nine through the dummy coding of the categorical variable "position title" into three separate dichotomous variables (chancellor, president, and superintendent/president). These nine demographics were collected via an internet survey.

Encourage the Heart is one of Kouzes and Posner's (2002a) five practices common to the best practices of leadership. Leaders who encourage the heart "visibly and behaviorally link rewards with performance. . . . [They] make sure people see the benefit of behavior that's aligned with cherished values" (pp. 19-20). Encouraging the heart is believed to help carry an organization through difficult times.

Enable Others to Act is one of Kouzes and Posner's (2002a) five practices common to the best practices of leadership. Leaders who enable others to act are thought to concentrate on building trust. They do not keep their power, but share it with others; this works "to make people feel strong, capable, and committed" (p. 18).

Experiences in Close Relationships Scale (ECR) is a self-assessment adult attachment measurement tool developed by Brennan et al. (1998).

The five practices of leadership are practices outlined by Kouzes and Posner (2002a) to define exemplary leadership practices, namely "model the way, inspire a shared vision, challenge the process, enable others to act, and encourage the heart" (p. 23).

Human behavior systems are the four systems postulated by Bowlby (1982) which "govern human behavior – attachment, caregiving, exploration and sex" (Simpson & Rholes, 2010, p. 173).

Inspire a Shared Vision is one of Kouzes and Posner's (2002a) five practices common to the best practices of leadership. Leaders who inspire shared vision "gaze across the horizon of time, imagining the attractive opportunities that are in store when they and their constituents arrive at a distant destination" (Kouzes & Posner, 2002a, p. 15). Such leaders inspire commitment and know their followers.

Leadership for this study is defined as a process by which a group progresses toward a common goal through both a shared vision of the future and a shared culture. The shared vision and culture are influenced by a creative individual serving in any position who exhibits credibility in relationship to others in the group.

Leadership Practices Inventory (LPI) is the tool developed by Kouzes and Posner (2002a) to measure the five practices of leadership that they associate with transformational leaders. The LPI total score is an overall scoring measure which combines all five of the individual leadership practices measured by the LPI into a single score.

Model the Way is one of Kouzes and Posner's (2002a) five practices common to the best practices of leadership. Leaders who "want to gain commitment and achieve the highest standards . . . must be models of the behavior they expect of others" (p. 14).

A *multi-college district* in the California community college system is a district that has more than one separately accredited college reporting to the district. In California, multi-college districts have a range between two and nine colleges. Such districts have a centralized chancellor to whom the individual college presidents report.

A *president* is the chief executive officer (CEO) of one California community college in a multi-college district.

A *single-college district* in the California community college system is a district that has one accredited college reporting to the district.

The *strange situation* is a controlled experiment, usually with infants under the age of two, developed to elicit attachment behaviors in young children in order to observe and classify attachment behaviors (Ainsworth & Bell, 1970; Ainsworth, Blehar, Waters, & Wall, 1978; Bell,

1970). The controlled experiment includes two periods of brief separation from, and reunions with, the attachment figure.

A superintendent/president is the chief executive officer (CEO) of a California community college district with a single college. He or she performs the duties of typically performed by both a chancellor and a president in a multi-college district.

Transactional leadership is usually contrasted with transformational leadership. Bass (1990) defines transactional leadership as managers engaging “in a transaction with their employees: They explain what is required of them and what compensation they will receive if they fulfill these requirements” (pp. 19-20). Burns (2003) defines the change that a transactional leader brings as “to substitute one thing for another, to give and take, to exchange places, to pass from one place to another” (p. 24).

Transformational leadership is a theory of leadership that focuses upon a leader who is able to transform followers to perform better than they normally would. In other words, transformational leadership “occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group” (Bass, 1990, p. 21).

Organization of the Study

This study explores the relatively new connection between attachment theory and leadership theory. Chapter One introduces the topics of attachment theory, leadership in general, and transformational leadership in particular, and the new thread of research bridging these two fields of study. This research provides a basis for understanding the way in which leaders can be understood as attachment figures to their followers. Chapter One provides background for the

purpose, problem statement, and research questions addressed in this study. Definitions of key terms are provided, and the limitations and assumptions of the study are discussed.

Chapter Two provides a thorough review of the literature related to attachment theory and leadership theory. A review of eight major leadership theories with a focus on the research supporting transformational leadership theory is followed by a review of the contributions of both the “father” of attachment theory, John Bowlby, and the “mother” of attachment theory, Mary Salter Ainsworth. Attachment theory research applied to adult relationships is summarized. Finally the recent tie of research between leadership theory and attachment theory is reviewed. The third chapter contains the methods used in the study, and the results and findings of the study are presented in Chapter Four. The fifth and final chapter provides a summary and discussion of the study as well as recommendations for further research.

Chapter Two: Literature Review

What is leadership? This simple question has defied a uniform answer from leadership scholars and theorists. Hundreds of definitions of leadership can be found in the literature (Kouzes & Posner, 2010). Bennis (2007) states that “it is almost cliché of the leadership literature that a single definition of leadership is lacking” (p. 2). Further, he reminds us that “we must remember that the subject [of leadership] is vast, amorphous, slippery and, above all, desperately important” (Bennis, 2007, p. 2). There is more to leadership than mere description. Burns (2003) writes,

I believe leadership is not only a descriptive term but a prescriptive one, embracing moral, even a passionate, dimension. Consider our common usage. We don’t call for *good* leaderships—we expect, or at least hope, that it will be good. ‘Bad’ leadership implies *no* leadership. I contend that there is nothing neutral about leadership; it is valued as a moral necessity. (p. 2)

A definition of leadership includes the idea of the leader-follower relationship (Avolio, 2007; Bennis, 2007; Burns, 1978). It also appears to include management of, and creation of, culture in a group (Schein, 2004). This is similar to what others describe as inspiring shared vision in order to help a group reach new goals or a new reality (Kouzes & Posner, 2002a). Leadership is viewed by many as a process that occurs over time (Northouse, 2004), or a “process of influence” (Vroom & Jago, 2007). Leadership can be demonstrated by any one at any level, whether or not that person is in a formal leadership position (Bass & Riggio, 2006). Leadership also involves integrity and credibility (Kouzes & Posner, 1993, 2002a) and creativity (Sternberg, 2007). Bennis (2007) lists six major competencies associated with his understanding of leaders: “They create a sense of mission, they motivate others to join them on that mission, they create an

adaptive social architecture for their followers, they generate trust and optimism, they develop other leaders, and they get results” (p. 5). Taking all of these ideas into account, leadership for this study is defined as a process by which a group progresses toward a common goal through both a shared vision of the future and a shared culture which are influenced by a creative individual serving in any position who exhibits credibility in relationship to others in the group.

Major Leadership Theories

Are leaders born leaders? Can leadership be learned? Hersey, Blanchard and Johnson (1996) assert that leaders are both born and made. Although there are many systematic leadership theories, the essential aspects of eight major theories provide sufficient background information. Eight leadership theories are examined below: the trait approach, the skills approach, the style approach, the situation approach, contingency theory, path-goal theory, leader-member exchange theory, and transformational leadership.

Eight Approaches to Understanding Leadership

The trait approach. Jago (1982) states that “from the turn of the century through the 1940’s leadership research was dominated by attempts to show that leaders possessed some intrinsic quality or characteristic that distinguished them from followers” (p. 317). The main idea behind this approach is that certain traits exist that are necessary to become great leaders.

Trait theories [do] not make assumptions about whether leadership traits [are] inherited or acquired. They simply [assert] that leaders’ characteristics are different than non-leaders. Traits such as height, weight and physique are heavily dependent on heredity, whereas others such as knowledge of the industry are dependent on knowledge and learning.

(Kirkpatrick & Locke, 1991, p. 48)

Kirkpatrick and Locke (1991) further describe leadership traits as “people’s general characteristics, including capacities, motives and general behavior” (p. 48).

Advocates of the trait approach to understanding leadership did not disappear in the 1940s. For example, Zaleznik (1977) asserts in his analysis of the difference between managers and leaders that “there are no known ways to train ‘great’ leaders” (p. 68), implying that there are traits of leadership with which one is born. Jago (1982) lists 42 traits in four categories—social characteristics, personality characteristics, skill and ability, and physical and constitutional factors—that have been proposed as important for leadership. As time passed, the trait approach shifted to include the idea that birth traits are not the sole factor in determining leadership. Instead, the focus became on the way in which those traits relate to a given leadership situation. Lord, De Vader, and Alliger (1986) found that “the ‘true’ correlation between intelligence, masculinity-femininity and dominance were significant” (p. 407) when looking at leadership perception. A study by Tharenou (2001) found that certain traits in women (masculinity and aspiration) when combined with interpersonal support, “predict advancing through important transitions in a managerial hierarchy” (p. 1014). It should be noted that masculinity does not refer to gender, but to a trait: how aggressive, decisive, or unemotional a person is (Lord et al., 1986). Although some propose that leadership traits may differ from field to field, Kirkpatrick and Locke (1991) assert that “successful leaders are not like other people. The evidence indicates that there are certain core traits which significantly contribute to business leaders’ success” (p. 49). Further, they conclude that “regardless of whether leaders are born or made or some combination of both, it is unequivocally clear that *leaders are not like other people*” (p. 59). Finally, they state that research reveals that six traits affect leadership: “drive, the desire to lead, honesty/integrity, self-confidence, cognitive ability, and knowledge of the business” (p. 49). The

self-confidence trait leads to assertive, decisive leaders, which, in turn, “gains others’ confidence in the decision” (p. 54). Kirkpatrick and Locke (1991) make no distinction on gender with regard to these traits. Donnell and Hall (1980) conclude that “women, in general, do not differ from men, in general, in the ways in which they administer the management process” (p. 76). The research by trait theorists, although founded on the “great man” idea, seems to have come full circle and concludes that gender is not an important trait when it comes to measurable outcomes of leaders.

The skills approach. The skills approach to leadership can be understood as a reaction against the trait approach. Katz (1955) started the discussion by pointing out that this approach is based not on what good executives *are* (their innate traits and characteristics), but rather on what they *do* (the kinds of skills which they exhibit in carrying out their jobs effectively). As used here a *skill* implies an ability which can be developed, not naturally inborn, and which is manifested in performance, not merely in potential. (pp. 33-34)

One can argue from reading Aristotle that he would assume certain qualities related to leadership are not from nature, but from practice. He states that “the virtues we get by first practicing them . . . it is by doing just acts that we become just, by doing temperate acts that we become temperate” (1892/2005, p. 54). Katz (1955) further explains this skills approach to leadership by offering three skills that can be developed by leaders: technical, human, and conceptual (p. 34). He asserts that the level of management determines which leadership skill is most important. Lower level administrators need more of the technical and human skills, while mid-level administrators need more human and conceptual skills. “At the top, conceptual skill becomes the most important of all for successful administration” (p. 42).

Recent work has continued studying the skills approach to understanding leadership. In 2000, the entire issue of *Leadership Quarterly* was dedicated to the skills approach (Yammarino, 2000). In this issue, Mumford, Zaccaro, Connelly, and Marks (2000) pose the following concerning understanding leadership:

Another way to frame the problem is to focus on the individual leader, or to ask “What capabilities must an individual possess to perform effectively in organizational leadership roles.” The research examined in this series of articles poses potential answers to this question, proposing that leadership depends on an interactive package of complex skills. (p. 156)

In another article, Mumford, Zaccaro, Harding, Jacobs, and Fleishman (2000) assert that instead of defining leadership in terms of behaviors, it can be defined “in terms of the capabilities, knowledge and skills that make effective leadership possible” (p. 12). They state that these can be learned and are influenced both by experiences and the work environment. How does the work environment influence the knowledge and skills of leaders? “Put simply, even the most skilled leader may fail if subordinates are completely incapable of implementing a proposed solution” to a problem (Mumford, Zaccaro, Harding et al., 2000, p. 23). The skills approach, as developed in the 2000 issue of *Leadership Quarterly*, “postulates that leadership may sometimes be a rather indirect phenomenon where influence is exercised through cognition and performance as well as through interpersonal interaction” (Mumford, Zaccaro, Connelly et al., 2000, p. 167).

This approach also takes an egalitarian understanding of leadership: Both women and men can have (and develop) leadership skills. One study found both “qualitative and quantitative positive association between a manager’s commitment to multiple roles and her managerial skills” (Ruderman, Ohlott, Penzer, & King, 2002, p. 381). This indicates that women who

maintain multiple roles between home and work acquire leadership skills that enhance their roles in their work environment.

The style approach. Unlike the trait and skills approaches to leadership, the style approach focuses on leaders' behaviors. One definition of the way in which leadership is related to behavior is that "leadership consists of behavior; more specifically, it is behavior by one member of a group toward another member or members of the group" (Bowers & Seashore, 1966, p. 240). There were two influential studies in the late 1940s and 1950s on leadership behavior: the Ohio State studies and the University of Michigan studies (Likert, 1961, 1967). The University of Michigan studies focused on "the identification of relationships among leader behavior, group processes, and measures of group performance" (Yukl, 2002, pp. 52-53). In short, the important leadership behaviors are seen as the leader's orientation toward people and orientation toward product. Yukl also explains that the Ohio State studies demonstrated that "subordinates perceived their supervisor's behavior primarily in terms of two broadly defined categories, one concerned with task objectives and the other concerned with interpersonal relations" (p. 50). These categories are labeled consideration and initiating structure. Consideration is defined as "behavior indicative of friendship, mutual trust, respect and warmth" (Bowers & Seashore, 1966, p. 241). Initiating structure is "behavior that organizes and defines relationship or roles, and establishes well-defined patterns of organization, channels of communication, and ways of getting jobs done" (p. 241). Bowers and Seashore (1966) propose four behaviors that are necessary for leadership which are closely related to the Michigan studies: (a) support, (b) interaction facilitation, (c) goal emphasis, and (d) work facilitation. Support is described as "behavior that enhances someone else's feeling of personal worth and importance" (p. 247) and interaction facilitation is described as "behavior that encourages

members of the group to develop close, mutually satisfying relationships” (p. 247). Goal emphasis is described as “behavior that stimulates an enthusiasm for meeting the group’s goal or achieving excellent performance” (p. 247) and work facilitation is described as “behavior that helps achieve goal attainment by such activities as scheduling, coordinating, planning, and by providing resources such as tools, materials, and technical knowledge” (p. 247). In effect, these four definitions are a detailed breakdown of the two behaviors described in the Michigan studies and can be seen as closely related to the two behaviors in the Ohio State studies.

Likert (1961, 1967) follows the Michigan studies and proposes four operating characteristics in leadership: exploitive authoritative, benevolent authoritative, consultative, and participative group. On a continuum from exploitive to participative, when many different managers were asked to picture their “most productive department, division or organization” (Likert, 1967, p. 3) as well as their least productive one, the low always fell to the left of the highs. One of Likert’s (1961) conclusions is that a leader must “always adapt his behavior to take into account the expectations, values, and interpersonal skills of those with whom he is interacting” (p. 95). He also asserts that effective managers use supportive relationships in their managing of people.

Another approach, which seems to have been derived from the University of Michigan studies, focuses on a leader’s behavior by using a grid with one axis having a scale from one to nine (nine being the highest) that marks a leader’s concern for people and the other axis having a scale from one to nine that marks a leader’s concern for the task (Blake & Moulton, 1968, pp. 14-15). Although this is a sliding scale on each axis, five main combinations are proposed. For example, the 9,1 position on this grid represents a person “who has a high concern for production and a low concern for people” (Blake & Moulton, 1968, p. 16). In a later article, they note that

“it is important to understand that these Grid variable of leadership are conceptualized as interdependent with one another in the sense that it is impossible to exercise leadership without both people and tasks” (Blake & Moulton, 1982, pp. 23-24). Blake and Moulton (1968) see people in the 9,9 (high concern for people and high concern for production) category of leadership as the most effective. They state that “the 9,9 theory is a synergistic theory of behavior. . . . The way these two high concerns come together—the synergistic results of the two—brings about a different approach for getting results than does any one of those yet described” (p. 24). Blake and Moulton (1968) describe the 9,9 approach as team management where “work accomplishment is from committed people; interdependence through a ‘common stake’ in organization purpose leads to relationship of trust and respect” (p. 15).

The style approach is purported to be applicable to almost any organization or level within the organization, including “industrial, governmental, military and voluntary” (Likert, 1961, p. 95). It assumes that the perceptions of the followers are important for the leader to discern and take into account in order to be successful. True participative decision making is seen to be the best approach, but nevertheless “the superior is accountable for all decisions, for their execution, and for the results” (Likert, 1967, p. 51). Eagly and Johnson (1990) found that, in spite of social scientists’ view “that there are in fact no reliable differences in the ways that women and men lead” (p. 233), there are some differences in styles of leaders based on sex. They found that women exhibit a leadership style that is more democratic and participative than men. Further, Vecchio and Boatwright (2002) found that “research in the area of gender differences generated the prediction that female employees would express a stronger preference for considerateness by a supervisor, while males would express a stronger preference for leader structuring” (p. 340).

The situational approach. The situational approach to leadership asserts that a leader's style needs to change in order to meet the needs of the situation. Tannenbaum and Schmidt (1958) proposed that the situation should help leaders decide on a leadership style. They assert that understanding oneself, those with whom one works, and the work environment is important, but not enough: "The successful leader is one who is able to behave appropriately in the light of these perceptions. If direction is in order, he is able to direct; if considerable participative freedom is called for, he is able to provide such freedom" (p. 101). Another early attempt at taking the situation into account when leading was proposed by Reddin (1967) with the 3-D approach to effective leadership. In this approach, "effectiveness is function of match of style to situation" (Reddin, 1967, p. 16). Reddin sees effectiveness (the third factor) increasing as both relationship and task orientation (the other two factors) are combined, by the leader changing the style of leadership from what is labeled a compromiser, to an integrated approach, and an executive approach as the situation warrants. Specifically, Reddin states that

a better explanation of effectiveness would appear to lay in the extent to which a manager's style, his combination of task and relationships orientation, fits the style demands of the situation he is in. . . . The third dimension is thus an output variable that is a function of the appropriateness of the underlying style to the demands of the job. (p. 15)

Reddin's ideas influenced the major proponents of the situational approach to leadership: Hersey and Blanchard. "Situational Leadership was developed by Paul Hersey and Kenneth H. Blanchard at the Center for Leadership Studies in the late 1960s" (Hersey et al., 1996, p. 189). They assert that "there is no one best way to influence people . . . no one style is effective in all situations. Each style is appropriate and effective depending on the situation" (Hersey et al.,

1996, pp. 190-191). They also take into account the task and relationship factors, but add a third factor: readiness, “defined as the extent to which a follower demonstrates the ability and willingness to accomplish a specific task” (Hersey et al., 1996, p. 193). Taking into account the readiness of an individual or group allows the leader to change his style of leadership to match the situation. The differing styles fall along a continuum similar to the managerial grid (Blake & Moulton, 1982). However, what differs from the style theory is that leaders can change their style to adapt to the situation. Thus, in one situation, a leader can choose to be more telling (or directive) and in another, more delegating. Falling between these two extremes are participating and selling styles (see Hersey et al., 1996, p. 200 for a good graphic representing these for styles in a continuum). The key to the situational approach to understanding leadership is to remember that “any leader behavior may be more or less effective depending on the readiness level of the person you are attempting to influence” (Hersey et al., 1996, p. 207). Empirical studies have provided mixed results when trying to verify the situational approach. Vecchio (1987) found “partial support for the principles contained in Situational Leadership Theory” (p. 450). This study found that the more directive approach seemed to help newly hired (or low-maturity) subordinates, but “for high-maturity employees, the theory appears to be unable to predict” (Vecchio, 1987, p. 450). Fernandez and Vecchio (1997) conclude that until better evidence of the theory’s validity is obtained, “it is perhaps wise to remain, at best, uncommitted concerning its utility (and, at worst, highly suspicious)” (p. 82).

The situational approach is purported to be applicable across any field. “Situational leadership has application in every kind of organizational setting, whether it be business and industry, education, government, military or even the family” (Hersey et al., 1996, p. 217). The assumption concerning employees is that in any given situation, an employee may be at a

different level of readiness (or maturity) and therefore the leader's style should be adapted to that level. It follows that decisions can be made in many different ways, from democratic to authoritative, depending on the given situation. The situation approach appears to ignore the question of the relationship of gender to leadership. Perhaps the most significant contribution of the theory, according to one of the theory's critics, is the "recognition of the subordinate as the most important situational determinant of appropriate leader behavior" (Graeff, 1983, p. 290).

Contingency theory. Contingency theory attempts to match the style of a given leader to the situation. The idea is that a leader's effectiveness is dependent upon two things: "(a) the leader's motivational structure or leadership style and (b) the degree to which the leadership situation provides the leader with control and influence of the outcome" (Fiedler & Garcia, 1987, p. 18). The instrument used to measure the leader's personality is the Least Preferred Coworker scale (LPC), an 18-item questionnaire that asks the leader to respond to questions with a least preferred coworker in mind (Fiedler & Garcia, 1987). Although there is some controversy as to the reliability of the LPC score, Fiedler and Garcia (1987) assert that it "is a highly reliable and surprisingly stable measure of personality" (p. 79). Specifically,

the Contingency Model predicts that task-motivated leaders tend to perform best in situations in which they have a high degree of control and influence, as well as in those in which their control and influence is relatively low. Relationship-motivated leaders tend to perform best in situations in which they have a moderate degree of control and influence. (Fiedler & Mahar, 1979, p. 46)

This theory is purported to be accurate in any given field. For example, Fiedler and Mahar (1979) studied 12 groups in civilian, military, and volunteer organizations and found support for the contingency theory. Contingency theory assumes that "most individuals are

effective in some situations and not effective in others” (Fiedler & Garcia, 1987, p. 83).

Therefore, it follows that matching the leader to the situation will improve effectiveness.

Additionally, the theory asserts that leaders “are able to modify their leadership situation to a degree sufficient to increase their effectiveness” (Fiedler & Mahar, 1979, p. 61). This implies that the theory assumes that leaders are not adept at learning to change their style. The contingency theory allows for leaders to make decisions depending on their individual style. If they are more relationship-oriented, they will most likely have a more participative decision making style. If they are more task-oriented, they will likely be less participative. The role of women in leadership does not appear to be directly discussed in contingency theory, except that gender is included in the definition of diversity, which “can be addressed in terms of effects on the situational control constructs” between leaders and followers (Ayman, Chemers, & Fiedler, 1995, p. 163).

Path-goal theory. House (1971, 1996) is one of the main proponents of the path-goal theory of leadership. The ideas contained in the path-goal theory are derived from expectancy theory of motivation, which assert that

the force on an individual to engage in a specific behavior is a function of (1) his expectations that the behavior will result in a specific outcome; and (2) the sum of the valences, that is, personal utilities or satisfactions, that he derives from the outcome.

(House, 1971, p. 322)

Thus, the path-goal approach to leadership finds no less than five ways in which the leader affects the outcomes of the followers. These five ways include (a) helping determine what rewards follow the reaching of the goal, (b) being consistent in giving the rewards for achievement of goals in order to increase the follower’s understanding that the rewards do follow

the outcomes, (c) providing support to the follower directly through his or her behavior, (d) influencing “the intrinsic valences associated with goal accomplishment . . . by the way he [or she] delegates and assigns tasks to subordinates, which determines the amount of influence the subordinate has in goal setting and the amount of control he [or she] is allowed in the task-directed effort” (House, 1971, p. 323), and (e) “reducing frustrating barriers, being supportive in times of stress, permitting involvement in a wide variety of tasks, and being considerate of subordinate’s needs” (p. 323). Basically, House (1971) asserts that by making “personal payoffs” clear to followers and by removing “road blocks and pitfalls” (p. 324), the leader improves his or her effectiveness by helping the follower(s) reach the work-goals more quickly. Schriesheim and Neider (1996) assert that the path-goal theory is a functional theory of leadership “calling for a diagnosis of functions which need to be fulfilled in subordinates’ work environments for them to be motivated, perform at high levels, and be satisfied” (p. 320). This theory attempts to understand the way in which a leader’s style (through his or her behaviors) affects the motivation of followers and their ability to complete assigned tasks.

House (1996) proposes some revisions to the path-goal theory, mostly dealing with expanding to 10 the number of leader behaviors “that are theoretically acceptable, satisfying, facilitative and motivational for subordinates” (p. 335). These 10 include path-goal clarifying behaviors, achievement-oriented leader behavior, work facilitation behavior, supportive leader behavior, interaction facilitation, group-oriented decision process, representation, networking, value-based behavior, and shared leadership. There are no less than 26 propositions associated with these 10 behaviors. Many studies are needed to determine if these propositions are valid. Evans (1996) states that the theory has not “undergone reasonable testing” (p. 307). A recent

study concluded that “there was no support for proposition 24 of the revised path-goal theory of leadership” (Schriesheim, Castro, Zhou, & DeChurch, 2006, p. 34).

The path-goal theory is general enough that it can be applied to any field. It seems to assume that leaders are those in the position of authority, not that one can lead from any position. The follower’s (subordinate’s) concerns are to be ascertained by the leader and then taken into account in order to fulfill the work-goal. Decision-making seems to come from the leader. Gender and the role of women in leadership do not appear to be addressed directly in this theory.

Leader-member exchange theory. Leader-member exchange (LMX) theory sees three parts to understanding leadership: the leader, the follower, and the relationship between them. LMX theory focuses on the relationship aspect of leadership (Graen & Uhl-Bien, 1995). Graen and Uhl-Bien (1995) state that “LMX clearly incorporates an operationalization of a relationship-based approach to leadership” (p. 225). The early LMX approach was focused on “dichotomous thinking relative to ‘in-group’ and ‘out-group’” (Graen & Uhl-Bien, 1995, p. 225). The LMX model has progressed beyond this to “describe how effective leadership relationships develop between dyadic ‘partners’ in and between organizations (e.g., leaders and followers, team members and teammates, employees and their competence networks, joint venture partners, suppliers networks, and so forth)” (Graen & Uhl-Bien, 1995, p. 225).

Another iteration of LMX theory is a focus on individualized leadership. Individualized leadership includes the ideas of investments and returns in the dyadic relationships between superiors and subordinates: “A critical superior investment is providing support for the feelings of self-worth to a subordinate. This can be accomplished by a superior providing attention, support, and assurance to a subordinate” (Yammarino & Dansereau, 2002, p. 90). The subordinates’ return to the superior is exceptional performance. Keller and Dansereau (1995)

conducted a study of LMX theory as it relates to empowerment and control. They also see that the original view of LMX was that “a member can only be an in- or out-group member by comparison to other members in the unit” (Keller & Dansereau, 1995, p. 128). In opposition to this, they “propose that superiors may develop exchanges with members that are independent of those formed with others” (p. 128). The short summary above illustrates the point that LMX theory is open to change and not a static approach to understanding leadership (Schriesheim, Castro, & Cogliser, 1999). This openness to change, however, appears to lead to complexity and a “need for improved theorization about LMX and its basic process” (Schriesheim et al., 1999, p. 102). As well, LMX needs further empirical study. “Existing LMX research may be viewed as fundamentally uninformative about the theory—since it is a theory of dyadic (leader-member) interaction but its predictions have not been tested at the dyadic level of analysis” (Schriesheim, Castro, Zhou, & Yammarino, 2001, p. 516). This testing is necessary to prevent the erection of “theoretical skyscrapers on foundations of empirical jello” (Schriesheim et al., 2001, p.516). Further, “issues of organizational justice appear central to further refinement of the LMX model” (Scandura, 1999, p. 37).

The LMX theory attempts to place equal emphasis on leaders and followers by focusing on the relationship (interactions) between the leaders and followers. In this sense, it is unique in its approach to leadership examined so far in this review. The early approach of LMX assumed that leaders had followers in in-groups and out-groups, and treated members of these groups differently. Those in the in-group most likely are seen by the leaders as having stronger potential for future leadership. The leaders most likely would consult with the in-group when making decisions, or at least disclose decisions to this group first. The question of organizational justice may relate to the question of what the views of the leader are with respect to women in

leadership. The potential for organizational injustice and potential bias toward or against women in leadership appears to be recognized by LMX theory. However, suggestions for preventing such injustice did not appear to be discussed in any detail in the literature reviewed.

Transformational leadership. Transformational leadership was first proposed by Burns (1978) as compared to heroic leadership. Heroic leadership means a “belief in leaders because of their personage alone, aside from their tested capacities, experience, or stand on issues” (Burns, 1978, p. 244). Burns asserts that heroic leaders seem to emerge “in societies undergoing profound crisis” (p. 244). Moses, Joan of Arc, Christ and Mohammed are examples of heroic leaders (Burns, 1978). A modern example of a leader rising up in a time of crisis and, for a period of time, becoming a heroic leader can be found in New York City Mayor Rudy Giuliani in the days following the September 11, 2001, attacks on the World Trade Center. In contrast to heroic leadership, which is more the exception in history than the rule, Burns finds transforming leadership to be exhibited by a classic, great leader. Finding in Mao Tse-tung an archetype of this kind of leader, Burns sees that the role of the transformational leader “is to comprehend not only the existing needs of followers but to mobilize within them newer motivations and aspirations what would in the future furnish a popular foundation for the kind of leadership Mao hoped to supply” (p. 254). In essence, a transformational leader inspires such shared vision of the future that both the leader and the followers are “swallowed up on the *purposes of the movement*” (Burns, 1978, p. 248). In a later work, Burns (2003) states it this way: “Transforming leaders define public values that embrace the supreme and enduring principles of a people” (p. 29). Transformational leadership assumes that leadership can come from any level (Conger, 1999). Bass (1990) explicitly states that “transformational leadership can be learned, and it can—and should—be the subject of management training and development” (p. 27).

Another way to understand transformational leadership is to examine it in juxtaposition to transactional leadership. Bass (1990) unpacks transactional leadership as managers engaging “in a transaction with their employees: They explain what is required of them and what compensation they will receive if they fulfill these requirements” (pp. 19-20). Burns (2003) defines the change that a transactional leader brings as “to substitute one thing for another, to give and take, to exchange places, to pass from one place to another” (p. 24). In contrast, change associated with transformational leadership is seen

to cause a metamorphosis in form or structure, a change in the very condition or nature of a thing, a change into another substance, a radical change in outward form or inner character. . . . It is a change of this breadth and depth that is fostered by transforming leadership. (Burns, 2003, p. 24)

In other words, transformational leadership “occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group” (Bass, 1990, p. 21). Pillai, Schriesheim, and Williams (1999) found that transformational leadership had an indirect influence on organizational citizenship behavior. Further, they found empirical evidence that transformational leadership is linked to procedural justice while transactional leaders are linked to distributive justice. Procedural justice “relates to the fairness of the outcomes an employee receives” while distributive justice “describes the fairness of the procedures used to determine those outcomes” (p. 901). Hamstra, Van Yperen, Wisse, and Sassenberg (2011) write that “transformational leadership encourages followers to carry out and construe their work in terms of strategic ideals, optimism, positive expectations, change, eagerness and an abstract long-term plan” (p. 182). In juxtaposition to this they explain

that “transactional leadership encourages followers to carry out and construe their work in terms of strategic means stressing rules, responsibilities, expectations, stability, avoiding errors, and a concrete, short-term plan” (p. 183).

What makes a leader a transformational leader? Bass (1990) cites several characteristics, including being charismatic, being inspirational, giving individualized consideration, and encouraging intellectual stimulation. These differ than those of transactional leaders, which are listed as contingent reward, laissez-faire management, and active or passive management by exception. Bass (1995) notes that “the intensity, extremity and direction of most leader behaviors were not what distinguished transactional and transformational leaders” (p. 469). Tichy and Devanna (1986) list seven characteristics that differentiate transformational leaders from transactional leaders: they are (a) change agents, (b) courageous, (c) believers in people, (d) value driven, (e) life-long learners, (f) able “to deal with complexity, ambiguity and uncertainty” (p. 280) and (g) visionary. Kouzes and Pozner (2002a) define five main characteristics that exemplary leaders possess. These characteristics are “model the way, inspire a shared vision, challenge the process, enable others to act, and encourage the heart” (p. 23).

It should be noted that transactional leadership is not necessarily to be viewed as a lesser form of leadership than transformational leadership. “In fact, most leaders have a profile of the full range of leadership that includes both transformational and transactional factors” (Bass & Steidlmeier, 1999, p. 184). Until recently,

the idea that leadership and management might stand for different phenomenon or roles or activities was a novel one. . . . This problem continues to this day in the transformational leadership literature . . . [which] reinforces the old notion that formal positions of authority are always leadership positions. (Conger, 1999, p. 148)

There has been a significant amount of study on the charismatic component of transformational leadership. Jacobsen and House (2001) find “three interacting elements” in charismatic leadership: “the leader, the constituency from which followers respond to the leader, and the social structure wherein the leader and the followers interact” (p. 77). Howell and Avolio (1992) note that charisma in leadership is value neutral: it can be used for good or bad purposes. Thus, they assert that

we need to understand the difference between ethical and unethical charismatic leaders . . . [in order to select] leaders who will pursue visions that benefit their organization rather than simply building their own power base at the expense of the organization. (p. 44)

Some have found the idea of transformational leadership theory to be a connecting point to other personality theories. A connection, albeit small, between Goleman’s (1998, 2006) concept of emotional intelligence to transformational leadership has been studied (Harms & Credé, 2010). Although there is disagreement as to the validity of the concept of emotional intelligence (Locke, 2005), many find that the “ability-based modes of emotional intelligence have value to add in the domain of organizational psychology” (Daus & Ashkanasy, 2005, p. 453). Carroll (2010) questions whether transformational leadership characteristics would be related to personality categories as measured by the Myers-Briggs personality assessment since the female hospital leaders studied did not show a difference in their self-perception accuracy when analyzed by Myers-Briggs types.

Transformational leadership and organizational effectiveness. Transformational leadership has been studied and linked to many aspects of organizational improvement and effectiveness. Numerous researchers have looked at the relationships of transformational

leadership characteristics and trust between followers and leaders (Burke, Sims, Lazzara, & Salas, 2007). One study found an indirect link between transformational leadership and cognition-based trust (Schaubroeck, Lam, & Peng, 2011). Hughes and Avey (2009) found significant relationships between transformational leadership and four aspects of followers: trust, job satisfaction, affective organizational commitment, and identification. Their study also found that “transformational leaders who are seen as using more humor rate higher” (p. 540) by their followers on trust and affective commitment. Another research study found a positive correlation between team members’ trust and their leader exhibiting a transformational leadership style as compared to transactional or consultative (Gillespie & Mann, 2004). In a recent dissertation, Wang (2011) found a relationship between transformational leadership and the followers perceiving the leader “exerting more proactive feedback-seeking behaviors” (p. ix) which leads to the followers having more trust, identification, and satisfaction. This, in turn, improves the followers’ performance. In another dissertation, Carson (2011) replicated results that link transformational leadership to followers’ perceptions of both trust and leader effectiveness.

A sampling of other research finds many more aspects of improved organizational performance associated with transformational leadership. One study linked the duration of the relationship between transformational leaders and followers to “value system congruence between leader and follower” (Krishnan, 2005, p. 444). Transformational leadership has also been linked to increased knowledge sharing among employees (Carmeli, Atwater, & Levi, 2010), to creativity in the workplace learning environment (Hetland, Skogstad, Hetland, & Mikkelsen, 2011), to a climate of innovation (Tafvelin, Armelius, & Westerberg, 2011), and to a positive effect on follower moral identity, which is defined as “the degree to which a person identifies himself or herself as a moral person” (Zhu, Riggio, Avolio, & Sosik, 2011, p. 151). Srithongrungrong

(2011) associates transformational leadership indirectly with the desire for followers to remain working for an organization while it also “directly enhances employees’ extra role behavior” (p. 376). Kaslow, Falender, and Grus (2012) argue that the field of professional psychology needs its supervisory leaders to change from a more transactional leadership style to a transformational style to help achieve needed change, calling transformational leadership “a style associated with effective change” (p. 47). In a study involving 41 managers and 610 employees in a hospital setting, McNeese-Smith (1991) found a consistent, positive correlation in the five practices of leadership, as rated by the followers, to followers’ job satisfaction, productivity, and organizational commitment. Another study found that when supervisor’s self-assessment of their own transformational leadership style was as high as they rated their leaders’ transformational leadership style, “they also perceive these leaders as being more successful” (Felfe & Schyns, 2004, p. 99). Finally, another study indicates that when transformational leaders are self-aware of their leadership, they more effective and their followers are more satisfied (Tekleab, Sims, Yun, Tesluk, & Cox, 2008).

Transformational leadership and education. In a special issue of *School Effectiveness and School Improvement* (Leithwood & Slegers, 2006), three articles focused on transformational leadership in a school setting. Leithwood and Jantzi (2006) studied the effect of transformational leadership on classroom practices of teachers, and ultimately on student achievement in England. They found that transformational leadership “has an important influence on the likelihood that teachers will change their classroom practices” (p. 223). They also found that variation in achievement gains by students was not related to transformational leadership in general, but assert that transformational leadership could be used to help make changes to classroom practices that are shown to lead to increased student achievement. Ross

and Gray (2006) found that collective teacher efficacy is affected by transformational leadership practices. Teacher efficacy is defined as teachers' "beliefs that they will be able to bring about student learning" (p. 179). Finally, Nguni, Slegers, and Denessen (2006) performed a study in Tanzania involving primary school teachers. They found that "transformational leadership behaviors had strong to moderate positive effects on value commitment, organizational citizenship behavior, and job satisfaction" (p. 168). They also found that "transactional leadership behaviors had no significant and weak aggregate effects on value commitment, organizational citizenship behavior and job satisfaction and had a strong positive effect only on commitment to stay" (p. 168).

Sidaoui (2007) studied deans at three schools in the United Arab Emirates, to assess if there was a relationship between their transformational leadership characteristics and organizational culture style. No statistical significant association was found. Another research study found that the perception of faculty and staff of their president's transformational leadership style as measure by the LPI was not statistically different from the self-reported perception of the presidents (Grafton, 2009). Skyers (2006) studied transformational leadership characteristics in New England community college presidents and found that they exhibited mean scores that were above the national averages reported by Kouzes and Posner (2002b). Livingston (2010) found that students expect a transformational/transactional leadership style from their on-line faculty instructors as opposed to a passive/avoidant leadership style. Hannigan-McMullen (2011) studied principals' self-perception of their leadership style and found that principals with transformational leadership styles have positive attitudes toward inclusion of students with disabilities in the least restrictive environment. Lutin (2010) found correlations between business school faculty's perception of their chairperson's transformational

leadership characteristics and the faculty's organizational commitment. Hempowicz (2010) studied transformational leadership in college presidents, and found that this group scored higher than national averages for transformational leadership characteristics as measured by the LPI. In another dissertation, it was found that community college "faculty members who work for a transformational leader had higher levels of job satisfaction than those who worked for a transactional leader, with the exception of transformational leaders who scored high on the transactional subscale of Contingent Rewards" (Harash, 2010, p. x). Solis (2011) studied self-reported transformational leadership characteristics of a public community college in Texas. He found that faculty leadership behavior does not vary with regard to gender, age, highest degree earned, years teaching at the institution, or general teaching area. The faculty showed highest results for enabling as a transformational leadership characteristic. Regarding race and ethnicity, Hispanics had slightly higher scores than Whites. Along a similar vein, a study of the leadership styles of administrators in three large community colleges in Texas was not linked to success of first time in college Hispanic students who were taking developmental education courses (Porcarello, 2010).

Measuring transformational leadership. Kouzes and Pozner (2002a) developed a 30-question instrument, the Leadership Practices Inventory (LPI), to measure the five practices of exemplary leadership they identified. The LPI is a self-report leadership measurement tool. The five characteristics it measures stem from questionnaires that Kouzes and Posner (2002a) have administered to tens of thousands of individuals asking which leadership characteristics or qualities they "most look for or admire in a leader, someone whose direction they would willingly follow" (p. 24). These five practices include *Model the Way*, *Inspire a Shared Vision*, *Challenge the Process*, *Encourage the Heart*, and *Enable Others to Act*. It is widely considered

to be a well-tested, reliable, and valid instrument for measuring characteristics of leadership related to transformational leadership theory (Fields & Herold, 1997; Kouzes & Posner, 2002a, 2002b, 2011; Lummus, 2010; Manning, 2002), although a few question the strength of the reliability and validity of the LPI. Zagorsek, Stough, and Jaklic (2006) assert that the LPI is most reliable for “respondents with low to medium leadership competence, whereas it becomes increasingly unreliable for high-quality leaders” (p. 180). Carless (2001) found that the LPI has weak discriminant validity between the five constructs, but, nevertheless concludes that “the LPI assesses an over-arching construct of transformational leadership” (p. 238). Overall, however, there is strong support for the reliability of the LPI.

It is important to understand what the five characteristics of transformational leadership as assessed by the LPI represent in leaders. Leaders who *Model the Way* “want to gain commitment and achieve the highest standards . . . and must be models of the behavior they expect of others” (Kouzes & Posner, 2002a, p. 14). Leaders who *Inspire a Shared Vision* “gaze across the horizon of time, imagining the attractive opportunities that in store when they and their constituents arrive at a distant destination” (Kouzes & Posner, 2002a, p. 15). Such leaders inspire commitment and know their followers. A leader’s main contribution in *Challenge the Process* is “in the recognition of good ideas, the support of those ideas, and the willingness to challenge the system to get new products, processes, services, and systems adopted” (Kouzes & Posner, 2002a, p. 17). Leaders who *Encourage the Heart* “visibly and behaviorally link rewards with performance. . . . [they] make sure people see the benefit of behavior that’s aligned with cherished values” (Kouzes & Posner, 2002a, pp. 19-20). *Encourage the Heart* helps carry an organization through tough times. Leaders who *Enable Others to Act* concentrate on building

trust. They “work to make people feel strong, capable, and committed. Leaders enable others to act not by hoarding power they have but by giving it away” (Kouzes & Posner, 2002a, p. 18).

The LPI is one of the most widely used leadership measurement tools available (Kouzes & Posner, 2002a, 2002b). Zagorsek, Jaklic, and Stough (2004) agree with this claim of the wide use of the LPI stating that the LPI “has been widely used by business organizations in various parts of the world for management development purposes” (p. 19). Recent dissertations studying transformational leadership characteristics as measured by the LPI are found in a variety of fields including business (Forrest, 2001), but appear plentiful related to nursing (Carroll, 2010; DeLong, 2010; Kallas, 2011; Lummus, 2010), education (Armstrong, 1992; Baal, 2011; Wiestling, 2010), and notably with college and university presidents as subjects (Grafton, 2009; Hempowicz, 2010; Skyers, 2006; Stout-Stewart, 2004, 2005). A sample review of other studies includes use of the LPI in a high variety of business settings, such as in a large engineering firm (Fields & Herold, 1997; Herold & Fields, 2004), in small manufacturing (Ridgway, 2001), family-owned businesses (Kakar, Kakar, KetsdeVires, & Vrignaud, 2002), and a large international finance company (Carless, 2001).

In addition to the dissertations using the LPI as the instrument for studying college and university presidents and nurses described above, leaders in these fields have been the subjects of a number of studies. For example, nurses were the subjects of Bowles and Bowles’ (2000) study. The LPI has also been used in studies with leaders working in those fields and a plethora of additional fields, including but not limited to athletic trainers (Laurent & Bradney, 2007), school principals (Taylor, Martin, Hutchinson, & Jinks, 2007), graduate and theological students (Johns & Watson, 2006; Slater et al., 2002; Zagorsek et al., 2006); emerging leadership program participants (Leigh, Shapiro, & Penney, 2010) and a large social services agency leaders

(Manning, 2002). Further, the LPI has been used across many cultures. A brief survey of these include studies done in Australia (Carless, 2001), South Africa (Herbst & Conradie, 2011), India (Kakar et al., 2002; Zagorsek et al., 2006), Nigeria, Argentina, South Korea, and Slovenia (Zagorsek et al., 2004; Zagorsek et al., 2006), Mexico (Slater et al., 2002), and the United Arab Emirates (Sidaoui, 2007).

The LPI is a psychometrically sound tool that has been used in a multitude of research studies. The five characteristics it measures and the total score which combines the five individual characteristics capture the essence of transformational leadership. They were developed through the use of both qualitative and quantitative research (Kouzes & Posner, 2002b). Although Kouzes and Posner (2002a) found a number of variables in leaders' characteristics, the best practices of leadership, as revealed from their extensive research, fall into these five areas.

What we have discovered, and rediscovered, is that leadership is not the private reserve of a few charismatic men and women. It is the process ordinary people use when they are bringing forth the best from themselves and others. What we've discovered is that people make extraordinary things happen by liberating the leader within everyone. (Kouzes & Posner, 2002a, p. xxiii)

Attachment Theory

John Bowlby, widely recognized as the father of attachment theory, a psychological theory attempting to explain behavior in close personal relationships, asserts that no form of behaviour is accompanied by stronger feeling than attachment behaviour. The figures toward whom it is directed are loved and their advent is greeted with joy. So long as a child is in the unchallenged presence of a principle attachment-figure, or within

easy reach, he feels secure. A threat of loss creates anxiety, and actual loss sorrow. (1982, p. 209)

He recognized that attachment is one of “four interrelated behavioral systems that govern human behavior – attachment, caregiving, exploration, and sex”; further, he viewed attachment as “regulating the other systems” (Simpson & Rholes, 2010, p. 173). Ainsworth (1969) defines attachment as “an affectional tie that one person (or animal) forms to another specific individual” (p. 971). Once an attachment is formed, it “tends to endure” (Ainsworth, 1969, p. 971). Ainsworth adds that “attachment is a synonym of love” (pp. 1015-16).

Origins and foundations of attachment theory. Ainsworth and Bowlby’s (1991) publication of their address upon receipt of a Distinguished Scientific Contributions award from the American Psychological Association in 1990 provides a detailed, first-hand account of their long-time collaboration as leaders in the development of attachment theory. Their more than 40 years of collaborative effort contributed greatly to the acceptance of attachment theory as a respected psychological theory and spurred an astounding new field of research since the 1960s. An example of how some of the basic concepts of attachment theory have been accepted is revealed in popular literature, where it is often obliquely referenced as factual. One specific example comes from Gladwell’s (2000) book *The Tipping Point*, in which he writes that “parents provide love and affection in the early years of childhood; deprived of early emotional sustenance, children will be irreparably harmed” (p. 239).

The father of attachment theory: John Bowlby. The origins of attachment theory stem from the work done at the Tavistock Clinic in the United Kingdom by Dr. John Bowlby, where he was a consultant psychiatrist between 1946 and 1972 (Bowlby, 1982). Bowlby’s work at the Tavistock Clinic extended the understanding of child development in the field of developmental

psychology. Although Bowlby worked under Melanie Klein (Bowlby, 1982), his work differs from the “Kleinian approach to child psychology,” which holds “that children’s emotional problems are almost entirely due to fantasies generated from internal conflict between aggressive and libidinal drives rather than to events in the external world” (Bretherton, 1992, p. 760). Instead of relying on theorizing from analytic sessions, Bowlby advocates relying on real world observation, arguing that “in trying to infer what psychical processes may lie behind [data obtained in analytic sessions], we inevitably leave the world of observation and enter the world of theory” (1982, p. 5). Ainsworth (1969) explains that Bowlby’s development of attachment theory stems from the idea that there must be “some relatively stable behavioral systems” (p. 999) that have developed to ensure survival of infants through the long period in which infants are dependent on parental care for survival.

Bowlby’s observations of juvenile thieves demonstrate this approach to developmental psychology (Bowlby, 1944). In studying the histories of 44 juvenile thieves, ages 5 to 16, Bowlby (1944) found that the children’s early home environment and prior history of separation from their mothers was linked to their delinquent behavior. Approximately 40% (or 17) of the delinquent group “had suffered such an early and prolonged separation from their mothers” (p. 109) while only 5% (or 2) of the juveniles in the control group had done so. Bowlby (1944) defines this separation from the mother as a period of no less than six months, and suggests that for a separation to result in a pathological condition, it “must occur when the child’s capacity for personal relationships has developed at least to a certain point” (p. 111). Bowlby’s (1944) examination of the 17 juveniles with such separation in their backgrounds reveals a common factor, namely that “during the early development of his object-relationships, the child is suddenly removed and placed with strangers” (p. 111). This examination into the background of

these juvenile thieves laid the foundation for Bowlby's development of attachment theory.

The next examination of the effects of child/mother separation was documented in 1952, in the case study of a 2-year-old going to the hospital (Bowlby, Robertson, & Rosenbluth, 1952). A film was made of a child's 8-day experience in the hospital, and the analysis of the child's behavior confirms that even in a brief separation with daily visits, the beginnings of potentially pathological behavior are seen. The two most common behaviors seen in separation from the mother in children of this age, and observed in this specific case study, are "(1) an intense clinging to the mother, which can continue for weeks, months or years; and, (2) a rejection of the mother as a love object, which may be temporary or permanent" (Bowlby et al., 1952, p. 83). This article demonstrates Bowlby's continued rejection of working simply from theory, as promoted in the Kleinian approach, but allowing observation to drive the analytical process in child psychology.

A series of articles Bowlby (1958, 1960a, 1960b, 1961a, 1961b, 1963) lays the foundation for his complete outline of attachment theory as presented fully in his trilogy of books (Bowlby, 1973, 1980, 1982). The first article examines the tie between mother and infant, and presents a summary of the then four current theories contrasted with Bowlby's new approach in which he "postulates that the attachment behaviour which we observe so readily in a baby of 12 months old is made up of a number of component instinctual responses" (1958, p. 351). The instinctual attachment behaviors mentioned go beyond the then current theories' focus on food intake and include "sucking, clinging, and following . . . and crying and smiling" (Bowlby, 1958, p. 351). These behaviors are active in nature, as opposed to psychological dependence. Bowlby (1958) states that "to be dependent on someone and to be attached to them are not the same thing" (p. 371). In this paper Bowlby also draws on ethologists' assumptions and findings that

animals have instinctual responses that are independent from the animals' responses stemming from physiological needs. He asserts that natural selection is the basis for attachment behavior in humans, and that this behavioral system is just as important as sexual reproduction and eating.

Two of the articles focus on separation anxiety (Bowlby, 1960b, 1961b). Bowlby's (1961b) review of the literature describes six main psychological theories addressing separation anxiety, with the conclusion that primary anxiety best describes the situation of a young child's separation anxiety. There is no foresight in this anxiety; it appears to be an instinctual response to separation from a caregiver. Bowlby (1960b) asserts that "a number of instinctual response systems" (p. 95) binds a child to its mother figure in early life. The instinctual behaviors exhibited include "crying, smiling, sucking, clinging, and following" (Bowlby, 1960b, p. 110). Separation anxiety is a necessary result of this instinctual attachment relationship. In fact, Bowlby (1960b) states that "separation anxiety is the inescapable corollary of attachment behaviour – the other side of the coin" (p. 102) because once a child is attached to its mother figure, a process that is usually in place by 28 weeks of age, anxiety arises upon separation from that figure.

The last three of these six articles written by Bowlby in this 6-year span explore childhood mourning (1960a, 1961a, 1963). In the first of these three thematically-related papers, Bowlby (1960b) demonstrates, contra the current psychoanalytic theories, that children as young as 6 months of age can experience real grief and mourning, especially as it relates to separation anxiety. Additionally, he argues against the Kleinian assumption that the "object relations loss of breast at weaning is the most significant loss sustained by the infant and young child" (Bowlby, 1960a, p. 49). Instead, losing the mother figure in the early years of childhood is the most significant loss. The second article examines Bowlby's assertion that "once the child has formed

a tie to a mother-figure, which has ordinarily occurred by the middle of the first year, its rupture leads to separation anxiety and grief and sets in train processes of mourning” (1961a, p. 317). Further, he argues that if these processes of mourning take place in young children, they can lead to later psychiatric illness. The process of mourning, according to Bowlby (1961a), takes place in three instinctual phases: (a) grief, or a focus on the object of loss which cannot be stopped because of the absence of the object lost and the impossibility of its recovery, (b) “disorganization of the personality accompanied by to pain and despair” (p. 319), and (c) reorganization of the personality with regards to both the object lost and a new object. The second phase of mourning can have a healthy process, in which “the response systems gradually cease to be focused on the lost object and the efforts to recover it cease too” (p. 319), or it can have an unhealthy focus on the lost object with “strenuous and often angry efforts to recover it” (p. 319), which Bowlby sees as being the seed of psychopathology.

The last of Bowlby’s (1963) papers on childhood mourning delves into the possible pathologies related to childhood loss and their parallel to pathological mourning in adults. The pathological variants of mourning include (a) unconscious yearning for the lost object, (b) unconscious reproach against the object, (c) care of vicarious figures, and (d) denial of the permanence of the lost object. Bowlby (1963) concludes “that many of the features that are characteristic of one or another pathological variants of mourning in adults are found to be almost the rule in the ordinary mourning responses of young children” (p. 521). The first two unconscious pathological responses for adults are the norm for young children. The care for vicarious figures commonly occurs, while the only exception to the norm is the denial of the permanence of the loss. Bowlby (1963) adds that this common exhibition of adult pathological mourning behaviors in young children experiencing loss does not always result in the child being

disturbed as an adult.

Bowlby's attachment theory is fully explored in three books focusing on attachment (1969, 1982), separation (1973), and loss (1980). These three books were planned to be written as a series, and are best seen as a trilogy (Ainsworth & Bowlby, 1991). In the second edition of the first volume, Bowlby (1982) examines the evolutionary background of attachment theory (informed from an ethological approach), arguing that behavioral systems "when activated, lead to behavioral sequences of greater or less complexity each of which commonly promotes survival of individual and/or species" (p. 85). The two behavioral systems primarily focused on by Bowlby (1982) are the attachment system in infants and the corresponding caregiving system in adults. His hypothesis is that "at some stage in the development of the behavioural systems responsible for attachment, proximity to mother becomes a set-goal" (Bowlby, 1982, p. 180). In this control theory approach to attachment behavior, Bowlby (1982) postulates that survival is further promoted by exploratory behaviors when the proximity seeking attachment behaviors are not activated in infants. The combination, or alternation, of these behaviors enhances survival as the infant grows older, making need for "proximity to mother less urgent" (p. 179).

The second volume in the trilogy focuses on separation, anxiety, and anger (Bowlby, 1973). In the first part of the book, he expands on his earlier work on separation (Bowlby, 1960b, 1961b). The second section of the book examines fear, the situations that arouse fear, and the relationship of fear to separation (Bowlby, 1973). Bowlby (1973) examines fear in humans developmentally, beginning with distress behaviors found in infants as they respond to external stimuli such as "discomfort, pain and sudden sharp sounds" (p. 100). Beginning at 7 months in some infants and in most by 9 or 10 months, fear is aroused by the sight of a stranger. After a thorough examination of fear developmentally, Bowlby (1973) concludes that as a child ages, he

or she is better able “to organize his [or her] behaviour that he [or she] moves simultaneously away from one type of situation and toward another type” (p. 122). In other words, as a child ages he or she can learn to move from a situation invoking fear to a situation that alleviates that fear: to gain proximity to his or her attachment figure. The fearful situation arouses attachment behavior, which provides for better survival.

In the last section of this second book, Bowlby (1973) examines the relationship of anxiety to anger and attachment, based on three main propositions. First Bowlby argues that those persons who have a strong confidence in the availability of their attachment figure will have less fear than a person without this confidence. Next Bowlby

postulates that confidence in the availability of attachment figures, or a lack of it, is built up slowly during the years of immaturity—infancy, childhood, and adolescence—and that whatever expectations are developed during those years tend to persist relatively unchanged throughout the rest of life. (p. 202)

Finally, he states that the individual’s understanding of the “accessibility and responsiveness of the attachment figures. . . are tolerably accurate reflections of the experiences of those individuals” (p. 202). Anxiety and anger come into play upon separation from the attachment figure. Both anxious and angry types of behavior can be aroused upon separation and both are “directed at the attachment figure: anxious attachment is to retain maximum accessibility to the attachment figure; anger is both a reproach for what has happened and a deterrent against it happening again” (Bowlby, 1973, p. 253).

The third volume of Bowlby’s (1980) trilogy focuses on loss and mourning and the place these conditions hold in psychopathology. This work expands the foundation laid by the three articles on childhood mourning Bowlby authored in the early 1960s (1960a, 1961a, 1963). “Loss

of a loved person is one of the most intensively painful experiences any human being can suffer” (Bowlby, 1980, p. 7). Bowlby (1980) asserts that the intensity and duration of the distress caused by such a loss is often underestimated and that “there is a tendency to suppose that a normal healthy person can and should get over a bereavement not only fairly rapidly but also completely” (p. 8). This third volume counters this reported tendency to minimize the traumatic affect of loss.

Early in this work, Bowlby (1980) examines the way in which humans process the extensive information which is constantly being gathered by their senses in a chapter entitled “An Information Processing Approach to Defence.” He states that “in the ordinary course of a person’s life most of the information reaching him is being excluded from further processing in order that his capacities are not overloaded and his attention not constantly distracted” (Bowlby, 1980, p. 45). This selective exclusion of information related to defense (or defensive exclusion) can be adaptive in nature, providing for defense and protection of the individual, which leads to survival and biological propagation of the species. It can, however, also be maladaptive in some situations when the information is being excluded because of its anxiety-related nature. Bowlby (1980) relates defensive exclusion to the deactivation of attachment behavior in children. He theorizes that when a child’s attachment behavior is frequently activated, but not responded to, a defensive exclusion reaction can occur to attachment behavior over time. In other words, when a child’s needs are repeatedly not being met by his or her attachment figure, over time the child learns to subconsciously exclude his or her attachment behavior. “Deactivation of attachment behavior is especially liable to be initiated during the early years,” states Bowlby, “though it can undoubtedly be increased and consolidated during later childhood and adolescence” (1980, p. 70).

The latter portion of the book examines mourning in adults and in children. Bowlby (1980) identifies four phases in mourning: numbness/anger, “yearning and searching for the lost figure,” “disorganization and despair,” (p. 85) and reorganization. Bowlby (1980) examines the similarities of children’s mourning to adults and the difficulties involved for children to resolve their mourning. Children’s attempts at the fourth phase of mourning, reorganization, can be difficult for many reasons and lead to an increased possibility of developing a psychiatric disorder.

The contribution of Mary Salter Ainsworth. Although Bowlby (1973, 1980, 1982) laid the foundation for the tenets of attachment theory, Mary Salter Ainsworth empirically tested his ideas and extended them (Bretherton, 1992). Ainsworth’s contributions include the idea of a child’s attachment figure serving as a secure base from which to explore as well as the idea of “maternal sensitivity to infant signals and its role in the development of infant-mother attachment patterns” (Bretherton, 1992, p. 759). Ainsworth’s early study of infants in Uganda served as the first empirical study of Bowlby’s attachment theory (Ainsworth, 1967). It also explores the idea of the attachment figure serving as the infant’s secure base. Although the results of this study were published in 1967, Ainsworth gathered the data in Uganda in the early 1950s, well before Bowlby published much of his work on attachment (Bretherton, 1992). This occurred because the working relationship that Ainsworth and Bowlby had at the Tavestock Clinic exposed Ainsworth to Bowlby’s early ideas on attachment (Awards for Distinguished Scientific Contributions, 1990). In the Uganda study, Ainsworth studied 28 babies from 26 families. The babies were between 2 days and 80 weeks old and were classified “into three groups according to the strength and security of the baby’s attachment to his mother: (1) a secure-attached group consisting of sixteen subjects . . . (2) an insecure-attached group consisting

of seven children . . . and (3) a ‘non-attached’ group of five children” (Ainsworth, 1967, p. 388). Through this observational study of infants in normal situations of separation, she categorized 16 patterns of attachments in infants who were determined to be attached to their mothers, including such behaviors as differential smiling, differential crying, and clinging. One behavior Ainsworth categorized was “exploration away from the mother as a secure base” (Ainsworth, 1967, p. 322). The main idea in this categorization is that infants with a secure attachment can and do use the attachment figure, typically the mother, as a secure base. The child with the secure base then leaves the mother’s presence for exploration with occasional checking in for reassurance that she is available if needed (Ainsworth, 1967). Ainsworth (1967) not only asserts that these behaviors demonstrate patterns of attachment, but that they are the means by which attachment between infant and mother grows. This growth of attachment can be explained as growth in love between infant and mother, as Ainsworth (1967) equates attachment and love. In comparing attachment theory to dependency, Ainsworth (1969) writes that “attachment is a synonym of love; dependency is not. . . . What *do* we mean by attachment? I lean to a definition which equates love and attachment” (pp. 1015-16).

The three classifications of attachment first identified in the Uganda study became the normative basis for classifying the styles of attachment between mothers and infants (Ainsworth et al., 1978). In other early infant attachment studies, a process called the *strange situation* was developed to elicit attachment behaviors in young children in order to observe and classify attachment behaviors (Ainsworth & Bell, 1970; Ainsworth et al., 1978; Bell, 1970). The strange situation is a controlled experiment that “consists of eight episodes presented in a standard order for all subjects, with those expected to be least stressful occurring first” (Ainsworth et al., 1978, p. 32). In this controlled environment, detailed observations of infant behavior are monitored and

recorded as a stranger is introduced into the room and the attachment figure leaves the room, creating two periods of brief separation. In total, the strange situation lasts less than 22 minutes (Ainsworth et al., 1978). The behaviors recorded during the separations and reunions include such actions as proximity and contact seeking, avoidance, smiling, crying, and vocalization. Based on the frequency, intensity, and duration of the behaviors exhibited in the strange situation, the infants are classified as secure, anxious/ambivalent, and avoidant (Ainsworth et al., 1978). The strange situation has been replicated in a multitude of studies of infant-mother attachment. Approximately 15% of infants are typically “difficult to classify” using these three main categories of attachment (Solomon & George, 1999, p. 290). This difficulty led to the idea that there may be a fourth category of attachment labeled “disorganized and/or disoriented” (Main & Solomon, 1990, p.122).

Perhaps the best illustration of how pervasive the strange situation is in research is found in the studies that examine multiple prior studies through meta-analysis of the data produced in those studies. Two meta-analyses examined cross-cultural consistency and patterns of attachment classification: one using data from 32 studies performed in six countries (van Ijzendoorn & Kroonenberg, 1988) and another using 10 studies in six countries (van Ijzendoorn & Kroonenberg, 1990). In another meta-analysis, data from 11 studies using the strange situation compared attachment to mothers to that of fathers (Fox, Kimmerly, & Schafer, 1991). Van Ijzendoorn, Goldberg, Kroonenberg, and Frenkel (1992) used data from 34 clinical studies to test the hypothesis “that maternal problems such as mental illness lead to more deviating attachment classification distributions than child problems such as deafness” (p. 840). Another meta-analysis used data from 13 studies to examine infant-mother attachment security and non-maternal care (Lamb, Sternberg, & Prodromidis, 1992). De Wolff and van Ijzendoorn (1997) used data from 66

studies to examine the extent of any link between infant attachment security and maternal sensitivity. Finally, data from 13 studies using the strange situation and 27 using another infant-mother attachment assessment, the Attachment Q Sort, were used to examine the security of attachment in children with non-parental care providers (Ahnert, Pinquart, & Lamb, 2006). These examples of meta-analyses of studies using the strange situation amply demonstrate the pervasiveness of this approach to measuring infant-mother attachment in the literature.

Attachment theory applied to adult relationships. During the early phase of research on attachment, from the late 1960s through the early-to-mid 1980s, the focus remained primarily on infant-mother attachment patterns, attachment in older children and adolescents, and individual differences in these attachment patterns. Attachment theory became accepted as a psychological approach in the understanding of human relationships, especially in the treatment of children (from infant/parent to adolescent/parent relationships). Although most of attachment-related research focused primarily on the early child-parent attachment relationship (Shaver & Mikulincer, 2010), Bowlby (1979) asserts that “whilst especially evident during early childhood, attachment behaviour is held to characterize human beings from the cradle to the grave” (p. 129). Confirming this oft quoted notion of Bowlby’s, Andersson and Stevens (1993) studied 267 community residents between the ages of 65 and 74 in Sweden and found that “early experiences with parents have an impact on the well being of elderly persons” (p. 114). Other studies have examined the relationship between the attachment and caregiving systems and aging parents and attachment in older adults (Cicirelli, 1993, 2004, 2010; Doherty & Feeney, 2004; Simpson & Rholes, 2010). By the late 1980s the research on attachment began to expand, and the concepts developed in attachment theory began to be used to study and understand additional relationships better. Bartholomew (1990) states that

until recently, attachment research has focused almost exclusively upon infancy and early childhood. The parent-child relationship has been seen as the prototypic attachment relationship, if not the only relationship in which attachment operates. This focus has resulted in a wealth of information on early attachment, but it has overshadowed the importance of attachment throughout the life-span. (pp. 157-158)

Ainsworth (1989) asserts that attachment bonds in “long-lasting interpersonal relationships” likely include “bonds with other kin, sexual pair bonds, and the bonds that may occur between friends” (p. 709).

Infant attachment compared to adult attachment. Hazen and Shaver (1994) propose that attachment theory, as it is revised and improved over time, may serve as the basis for “a comprehensive theory of close relationships” (p. 1). With a mountain of research on infant attachment as its base, adult attachment theory may serve to provide a working model for the complexity involved in understanding adult relationships, both romantic and non-romantic. As a child matures to adulthood, attachment behaviors such as seeking proximity, a safe haven, and a secure base transfer from parents to peers (Hazen & Shaver, 1994). This leads to applying understanding gained in infant attachment studies to adult close relationships. How does adult attachment differ from infant attachment? While infant attachment can be thought of as one directional with the infant’s needs being met by the adult, “adult attachment relationships are typically reciprocal, with each partner being both a provider and a recipient of care” (Hazen & Shaver, 1994, p. 8). While infants do not control the life-setting in which their initial attachment patterns develop, as they mature and develop they are able to have discourse with their parents and experience other influences that may change their attachment framework (Thompson, 2000). Adults have some level of choice in their attachments. Bartholomew (1990) asserts that

adults differ on both their motivation to become attached to others, a given in infancy, and their motivation to not become attached. Avoidance may therefore stem from either a fear of intimacy or a lack of interest or motivation to become intimate with others. (p. 149)

Infant attachment is primarily related to activation of the caregiving behavioral system in the parent. Adult romantic attachment integrates all three behavioral systems: caregiving, attachment, and sexual relationships (Hazen & Shaver, 1987). To what degree does infant attachment to a parent influence later adult romantic attachment? Fraley and Shaver (2000) tentatively conclude that the attachment relationship from childhood only moderately relates to adult romantic relationships. Conclusions from the research on this topic, however, are mixed. Crowell and Waters (2005) “found quite remarkable support for the continuity of attachment patterns across this 20-year interval from infancy to young adult life, and a solid first step for demonstrating that the parent-infant relationship may be a prototype for later lover relationships” (p. 232). Even though current research does not allow for a definitive conclusion, adult romantic relationships are considered to be attachment bonds (Hazen & Zeifman, 1999).

Adult romantic relationships and attachment. The first adult relationships studied from an attachment perspective are romantic relationships. Over the past 25 years, research on adult attachment, especially in romantic relationships, has become a regular topic at conferences and in academic journals and books. Hazen and Shaver (1987) were among the first to apply attachment theory to adult relationships. Their focus is on using attachment theory as a basis for understanding romantic love relationships. The kernel of their idea “is that romantic love is a biological process designed by evolution to facilitate attachment between adult sexual partners who, at the time love evolved, were likely to become parents of an infant who would need their

reliable care” (Hazen & Shaver, 1987, p. 523). Using the three categories of attachment (secure, anxious/ambivalent, and avoidant) developed by Ainsworth et al. (1978), Hazen and Shaver (1987) tested five hypotheses concerning adult romantic relationships. They developed three self-report definitions to measure adult respondents’ self-reported attachment style:

Secure: I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don’t often worry about being abandoned or about someone getting too close.

Avoidant: I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being.

Anxious/Ambivalent: I find that others are reluctant to get as close as I would like. I often worry that my partner doesn’t really love me or won’t want to stay with me. I want to merge completely with another person, and this desire sometimes scares people away.

(Hazen & Shaver, 1987, p. 515)

Their findings include confirmation that self-reporting to definitions of the three attachment types appears valid and that the people in each of three categories experience love and certain emotions connected to love in different ways. Hazen and Shaver (1987) state that “overall, the results provide encouraging support for an attachment-theoretical perspective on romantic love” (p. 521).

Hazen and Shaver’s (1987) study spurred what may be described as an explosion of studies applying attachment theory to adult relationships, especially adult romantic relationships. Many facets of adult attachment are examined in the literature, as seen in the following

illustrations. Adults with a secure attachment style have more trust, commitment, and satisfaction in romantic relationships than adults with avoidant or anxious attachment styles (Feeney, 1994, 1996; Hollist & Miller, 2005; Kane et al., 2007; Mikulincer, 1998c; Simpson, 1990; Tucker & Anders, 1999). Higher levels of anxious or avoidant styles are inversely related to an individual's sexual satisfaction in married couples (Butzer & Campbell, 2008). Avoidant adults show low interest in their partners' intimate feelings while anxious adults tend to focus on their own and their partners' shortcomings (Rholes, Simpson, Tran, Martin, & Friedman, 2007). Anxiously attached adults appear to increase the severity of conflicts in their romantic relationships (Campbell, Simpson, Boldry, & Kashy, 2005). Avoidant adults demonstrated ineffective support seeking with their intimate partner in a stressful situation while anxious attachment "predicted poor caregiving" (Collins & Feeney, 2000, p. 1053). Adults show their jealousy differently depending on their attachment styles, with anxious adults resisting showing anger, avoidant adults blaming the interloper, and secure adults blaming their partner while maintaining the relationship (Sharpsteen & Kirkpatrick, 1997). Attachment insecurity has even been linked to marital well-being through the perception of fairness in the division of housework (Badr & Acitelli, 2008).

Adult attachment in non-romantic relationships. As outlined above, the first focus in adult attachment research is adult romantic relationships (Hazan & Shaver, 1987). More limited research on various adult attachment relationships include attachment between close friends (Ainsworth, 1989; Creasey, Kershaw, & Boston, 1999; Doherty & Feeney, 2004; La Guardia, Ryan, Couchman, & Deci, 2000; McCarthy, 1999; Trinke & Bartholomew, 1997), attachment between therapists and their clients (Bowlby, 1979; Farber, Lippert, & Nevas, 1995; Mallinckrodt, 2010; Mallinckrodt, Gantt, & Coble, 1995; Obegi, 2008; Parish & Eagle, 2003;

Schwartz & Pollard, 2004; Slade, 1999; White, 2004), attachment and the capacity to be an analyst (Halpern, 2003), attachment influence in groups (Berson, Dan, & Yammarino, 2006; Mikulincer & Shaver, 2001; Rom & Mikulincer, 2003; Smith, Murphy, & Coats, 1999), attachment in group therapy (Marmarosh, 2009), attachment between coaches and athletes (Shaver & Mikulincer, 2010), attachment between leaders and followers (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007; Keller, 2003; Mikulincer & Shaver, 2007a; Popper & Maysseless, 2003) and adult attachment behavior in relation to organizations and organizational change (Mikulincer & Shaver, 2007a, 2007b; Mulinge, 2001; Popper & Maysseless, 2007; Thau, Crossley, Bennett, & Sczency, 2007).

Thau et al. (2007) completed three studies examining the potential mediating effect of employees' attachment to an organization as related to anti-social work behaviors. Specifically, they found that "the prediction that an employee's level of trust would negatively relate to antisocial work behaviors via attachment to the organization was supported" (p. 1169). Although Mulinge (2001) is focused on attachment to an organization with regard to the intent to stay working at the organization as well as applying previous models in an emerging national setting in Kenya, it should be noted that he found that "job satisfaction and organizational attachment are raised when the work setting is structured to increase decentralization, social integration, individual mobility and careers, perceptions of legitimacy and to reduce stress" (p. 310). Mikulincer and Shaver (2007b) suggest that interventions designed to increase security in people may be linked to reducing antisocial behaviors in both the work setting and other settings.

More recent directions in attachment theory research explore attachment with deceased loved ones (Cicirelli, 2010), to God (Barney, 2012; Cicirelli, 2004, 2010; Granqvist, Mikulincer, & Shaver, 2010; Kirkpatrick, 1999; Mills, 2008), and even possibly to pets (Doherty & Feeney,

2004). Finally, attachment has also been linked to physical activity and health, as one recent study has linked secure attachment positively with “physical activity-related perceptions, supporting the self-determination theory assertion that social factors play an important role in motivational processes” (Ullrich-French, Smith, & Cox, 2011, pp. 1072-1073). This wide variety of application is not surprising, as early on in his development of attachment theory, Bowlby (1956) asserted that attachment “continues in one form or another throughout life and, although in many ways transformed, underlies many of our attachments to country, sovereign, or church” (p. 588).

As outlined above, research on adult attachment has demonstrated that other relationships, beyond romantic ones, can be shown to be attachment relationships. Trinke and Bartholomew (1997) found that, on average, there were 5.38 attachment figures in their study of 223 university students. “Overall, participants ranked romantic partners (if they had them) most highly as attachment figures, followed by mothers, fathers, siblings, and best friends” (Trinke & Bartholomew, 1997, p. 619). Doherty and Feeney (2004) studied the preferred attachment figures in 812 adults with ages ranging from 16 to 90 and found evidence for multiple attachments and for attachments to best friends. “Six targets were investigated as potential attachment figures: partners, mothers, fathers, siblings, best friends, and children” (Doherty & Feeney, 2004, p. 473). Results of the study showed that “more than 50% of the sample reported two or more full-blown attachments” (p. 478). Further, 74% of subjects reported attachment to their partners, 40% to their mothers, “16% to their fathers, 22% to at least one sibling, 30% to at least one friend and 40% to a child” (p. 478). Doherty and Feeney (2004) noted that

although only the six most frequently occurring figures of partner, mother, father, sibling, best friend, and child were investigated for attachment strength, participants nominated a

wide range of people as fulfilling attachment functions. Those listed included other family members (e.g., cousins, parents-in-law, and grandchildren), as well as occasional responses of God, pets, and no one. (p. 475)

Simpson and Rholes (2010) identify these various attachment relationships and the apparent hierarchies that may exist in the multiple adult attachment relationships as a critical area that needs additional research. This possibility of multiple attachment relationships in adulthood provides evidence that the leader-follower relationship may be able to be better understood from an attachment perspective.

Stability of adult attachment. Bowlby (1973) theorized that a person's view of the stability or instability of their attachment figure develops as the person matures through adolescence, "and that whatever expectations are developed during those years tend to persist relatively unchanged throughout the rest of life" (p. 202). Stability of attachment patterns in infants and adults, however, has been a topic of much discussion and study throughout the history of attachment research. Numerous studies demonstrate, somewhat paradoxically, that attachment security from infancy to adulthood can be stable, yet can change (Baldwin & Fehr, 1995; Carlson, Sroufe, & Egeland, 2004; Lewis, Feiring, & Rosenthal, 2000; Waters, Weinfeld, & Hamilton, 2000; Weinfeld, Sroufe, & Egeland, 2000). Longitudinal studies lasting up to 20 or more years show this mix of stability and change (Carlson et al., 2004; Crowell & Waters, 2005; Grossmann, Grossmann, & Kindler, 2005; Sagi-Schwartz & Aviezer, 2005; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000). "Individual differences in attachment security can be stable across significant portions of the lifespan and yet remain open to revision in light of experience" (Waters, Merrick et al., 2000, p. 684). Often these experiences that lead to revisions in attachment security are negative, such as experiences with maltreatment or divorce (Lewis et

al., 2000; Weinfeld et al., 2000). Crowell and Waters (2005) conclude from their 20-year longitudinal study that “change in attachment status appeared to be lawful, being associated with significant change in caregiving environment over the 20-year interval due to events such as parental divorce, parental death, and serious illness in the parent or child” (pp. 231-232). In describing the main conclusion from their two longitudinal studies from infancy to young adulthood, Grossmann et al. (2005) state that their research demonstrates that “young adults’ thoughts and feelings about close relationships are powerfully influenced by their early as well as their later relationships with mother and father” (p. 98). Another longitudinal study pointed to the conclusion that “early attachment experiences are apparently represented and carried forward, setting conditions for seeking, interpreting and reacting to later experiences” (Sroufe, Egeland, Carlson, & Collins, 2005, p. 67). Mikulincer and Shaver (2007a) state that the longitudinal studies, when considered in their totality, “indicate that parental divorce and other stressful events during childhood and adolescence predict attachment insecurities in young adulthood” (p. 138). Mills (2008) asserts that her study of attachment in missionary couples showed that “prolonged secure and committed experiences in marriage” (p. x) were related to an increase in attachment security over time.

Attachment style also appears to be dynamic in adulthood. Kirkpatrick and Hazen (1994) found that attachment styles of 177 adults were relatively stable over a 4-year period. In one study of 155 women’s attachment styles at high school graduation, 72% remained the same six months later, and 66% remained the same two years later (Davila, Burge, & Hammen, 1997). Scharfe and Bartholomew (1994) found moderate stability in adult attachment patterns in a longitudinal study that measured adult attachment over an 8-month time-span. They found an interview measure to be more stable than the Relationship Questionnaire (RQ), a self-report adult

attachment measure (77% test-retest for the interview measure versus 59% for the self-report measure). In general, an unknown portion of these changes in attachment style classification may be due to the measurement tools used to assess adult attachment (Baldwin & Fehr, 1995; Scharfe & Bartholomew, 1994). Davila et al. (1997) assert that at least a portion of this fluctuation in attachment style can be attributed to people who “tend to have a history of personal and family dysfunction, especially psychopathology” (p. 837). Mikulincer and Shaver (2007a) summarize more than 30 studies on adult attachment stability (over periods as little as 1 week to as long as 25 years) by stating that “on average, around 70% of participants received the same attachment classification or chose the same attachment category at different points in time” (p. 141). Thus, approximately 30% of adults experience a change in attachment classification over time, likely a result either of significant life events affecting relationships over time or from measurement unreliability (Baldwin & Fehr, 1995). More recent studies are beginning to examine the way in which adults can intentionally attempt to change their attachment style toward a secure style through systematic interventions (Gillath, Selcuk, & Shaver, 2008; Gillath & Shaver, 2007; Mikulincer & Shaver, 2007b) and through the therapist-client bond (Mallinckrodt, 2010; Obegi, 2008).

There may be a relationship between this moderate tendency for change and the 15% of infants typically difficult to classify in the strange situation when the three-category approach to classification is used (Solomon & George, 1999). The idea of a fourth category of general attachment classification suggested for the strange situation by Main and Solomon (1990) could mitigate a portion of this tendency for instability in adult attachment classifications.

Additionally, Baldwin and Fehr (1995) suggest that when doing studies with several measurement scales, mitigating the effects of this 30% change in attachment classification and

obtaining better results may be possible through administration of attachment style scales “concurrently with the other measures” (p. 254). Davila and Cobb (1998) conclude that both interviewer-assessed and self-report methods of classifying adults’ and late adolescents’ attachment demonstrate the “capacity for change during these developmental periods” (p. 137).

No matter how stable the attachment system is in adulthood, the evidence demonstrates the influence that the attachment system has on people over time. Fraley and Shaver (2000) state that

the most important proposition of the theory is that the attachment system, a system originally adapted for the ecology of infancy, continues to influence behavior, thought, and feeling in adulthood. This proposition may hold regardless of whether individual difference in the way the system is organized remain stable over a decade or more and stable across different kinds of intimate relationships. (p. 147)

Self-report measurements of adult attachment. Hazen and Shaver’s (1987) self-report adult attachment measurement tool served as a basis for the development of numerous other tools to measure attachment in adults throughout the 1990s. The simplicity of this “categorical, forced-choice measure” (Mikulincer & Shaver, 2007a, p. 85) made it a widely used basis for measuring adult attachment in romantic relationships by numerous scholars (e.g., Elliot & Reis, 2003; Feeney, 1991; Gerisma, Buunk, & Mutsaers, 1996; Hendrick & Hendrick, 1989; Klohnen & Bera, 1998; Kobak & Hazen, 1991; Levy & Davis, 1988; Mickelson, Kessler, & Shaver, 1997; Mikulincer, 1998b, 1998c; Mikulincer & Horesh, 1999). This tool was used in a nationally representative sample of 8098 adults ages 15 to 54 (Mickelson et al., 1997). This study found that 59% of the adults were categorized as secure, 25% as avoidant, 11% anxious, and 4.5% “unclassified because their three attachment style rating scores were equal” (Mickelson et al.,

1997, p. 1097). These percentage breakdowns between the categories are similar to most research results using the three-question, forced-choice approach to measuring adult attachment. Hazen and Shaver's (1987) original study measured 56% of respondents as secure, 23% as avoidant, and 19% as anxious/ambivalent.

Simpson (1990) breaks the three Hazen and Shaver (1990) categorical statements into 13 sentences which respondents answer on a 7-point Likert-type scale. This became known as the Adult Attachment Questionnaire (AAQ). Later, Simpson, Rholes, and Phillips (1996) updated this measurement device to 17 questions. This move to a Likert-type scale occurred for several reasons, including that the Hazen and Shaver forced-choice approach makes "people classify themselves as belonging to one of three mutually exclusive attachment categories without indicating the extent to which the chosen category characterizes them. As a result, meaningful individual difference variability that exists within each category cannot be assessed" (Simpson, 1990, p. 973). Many researchers opted to use the AAQ in their research (e.g., Campbell et al., 2005; Cyranowski & Anderson, 1998; Feeney, 1996; Feeney & Kirkpatrick, 1996; Fuller & Fincham, 1995; Keelan, Dion, & Dion, 1994; Kirkpatrick & Davis, 1994; Overall & Sibley, 2009; Rholes, Simpson, Campbell, & Grich, 2001; Simpson, Rholes, & Nelligan, 1992; Tucker & Anders, 1998).

Collins and Read (1990) also developed a multi-question measure, using Hazen and Shaver's (1987) three-question measure as a basis. This 21-question measure, called the Adult Attachment Scale (AAS), was developed because of the limitations associated with the discrete three-question measure, including the fact that each question in Hazen and Shaver's measure "contains statements about more than one aspect of relationships (i.e., the 'secure' description includes both being comfortable with closeness and being able to depend on others). Thus,

respondents must accept an entire description that may not reflect their feelings on all dimensions” (Collins & Read, 1990, p. 645). Numerous studies used this measure (e.g., Collins & Feeney, 2004; Davila, Karney, & Bradbury, 1999; Frazier, Byer, Fischer, Wright, & DeBord, 1996; Roberts, Gotlib, & Kassel, 1996; Shaver, Belsky, & Brennan, 2000). Mikulincer, Florian, and Tolmacz (1990) also broke Hazen and Shaver’s (1987) three questions into a 15 multi-question measure that was used in numerous studies (e.g., Green-Hennessy & Reis, 1998; Mikulincer, 1998a; Mikulincer & Arad, 1999; Mikulincer & Erev, 1991; Mikulincer & Nachshon, 1990; Mikulincer & Orbach, 1995). These responses to Hazen and Shaver’s (1987) three-question approach are not unexpected, as in their discussion of their study they suggest that their questions could be broken down into components and assessed separately, with a multi-item scale which could “allow subjects to endorse parts of what is currently forced on them as a single alternative” (p. 522).

The three questions posed by Hazen and Shaver (1987) focus on attachment being categorized into the two dimensions found in the seminal article by Ainsworth et al. (1978): anxious and avoidant. Although the framework in Ainsworth’s work was two-dimensional, the data gathered had three main clusters or groupings. These three groupings were categorized by Hazen and Shaver (1987) as secure, avoidant, and anxious/ambivalent, the three categories described in some of the earliest empirical research on attachment patterns (Ainsworth et al., 1978). Mikulincer and Shaver (2007a) assert that “other authors quickly cut the names down to size: dismissing, secure and preoccupied” (p. 85). These three categories served as the basis for the three questions Hazen and Shaver (1987) posed, and served as the basis for the adult attachment measurement scales described above. These scales were developed to measure secure and avoidant attachment styles as opposites with an orthogonal measure of anxious/ambivalent

attachment. Even though the number of categories of attachment classifications is still under debate, this reminder from Noller and Feeney (1994) still applies today: “Attachment theory does not stand or fall on whether there are three or four attachment groups” (p. 54). They add that when looking at attachment, “there may be only one way of being secure but many ways of being insecure” (p. 54).

Feeney, Noller, and Hanrahan (1994) developed another measurement scale independently from Hazen and Shaver’s (1987) approach. This 40-question Adult Style Questionnaire (ASQ) differs from the AAQ and the AAS, as it measures five dimensions of attachment, namely “Confidence (in self and others), Discomfort with Closeness, Need for Approval, Preoccupation with Relationships, and Relationships as Secondary (to achievement)” (Feeney et al., 1994, p. 134). The ASQ has been used in numerous studies (e.g., Bakker, van Oudenhoven, & van der Zee, 2004; Chappell & Davis, 1998; Corcoran & Mallinckrodt, 2000; Feeney, 1996, 1999b; Knobloch, Solomon, & Cruz, 2001; Moller, Fouladi, McCarthy, & Hatch, 2003; Shafer, 2001).

Bartholomew (1990) emphasized Bowlby’s (1982) ideas of attachment and explored the idea of attachment styles being two-dimensional, with positive and negative models of self and positive and negative models of others being the basis for attachment. These models of self and others define four, rather than three attachment styles: secure, preoccupied, dismissing, and fearful. Figure 1 below shows Bartholomew’s (1990) diagram of the four categories of attachment.

		Model of Self	
		positive	negative
Model of Other	positive	Cell I: Secure Comfortable with intimacy and autonomy	Cell II: Preoccupied Preoccupied with relationships
	negative	Cell III: Dismissing Dismissing of intimacy Counterdependent	Cell IV: Fearful Fearful of intimacy Socially avoidant

Figure 1. Bartholomew's (1990) four-category diagram.

Bartholomew and Horowitz (1991) describe an adult with a secure attachment as having a positive view of self, or a sense of "lovability" combined with "an expectation that other people are generally accepting and responsive" (p. 227). An adult with a preoccupied attachment has a low view of self, or a "sense of unworthiness (unlovability) combined with a positive evaluation of others" (Bartholomew & Horowitz, 1991, p. 227). An adult with a fearful-avoidant attachment has "a sense of unworthiness (unlovability) combined with an expectation that others will be negatively disposed (untrustworthy and rejecting)" (Bartholomew & Horowitz, 1991, p. 227). Finally, an adult with a dismissive-avoidant attachment has "a sense of unworthiness combined with a negative disposition toward other people" (Bartholomew & Horowitz, 1991, p. 227). Mikulincer and Shaver (2007a) diagram this approach to understanding attachment patterns as reproduced below.

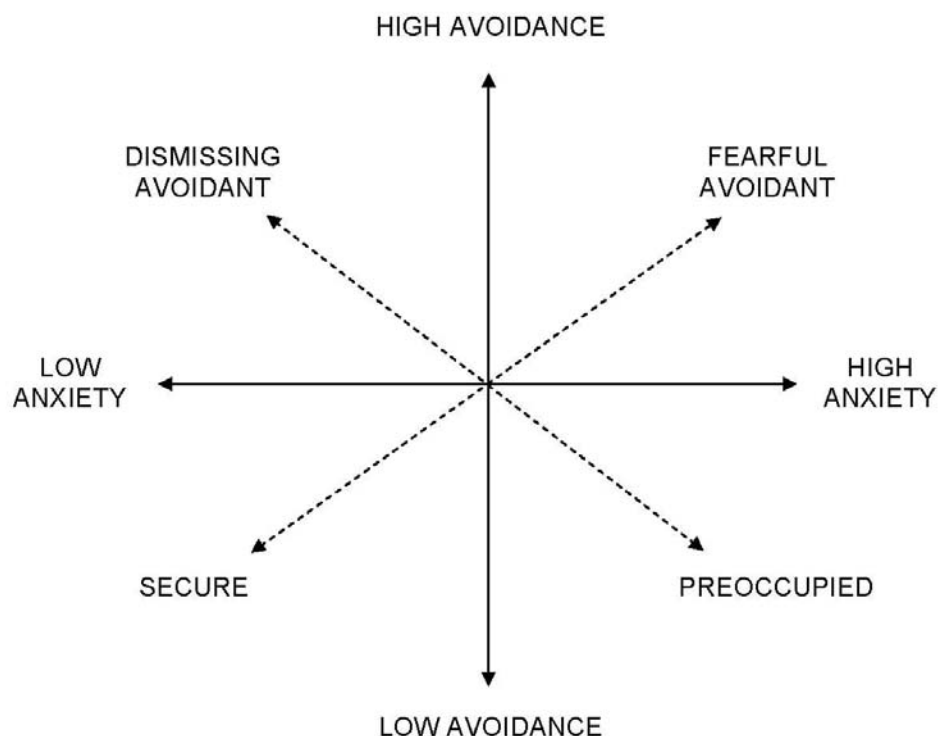


Figure 2. Bartholomew's (1990) four-category diagram as adapted by Mikulincer and Shaver (2007a).

Following this four-category, two-dimensional approach to understanding attachment, Bartholomew and Horowitz (1991) developed an adult measure of attachment called the Relationship Questionnaire (RQ). This four-question approach was modeled after Hazen and Shaver's (1987) three-question measure. The statements for each category are

Secure. It is relatively easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.

Dismissing. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

Preoccupied. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

Fearful. I am somewhat uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I sometimes worry that I will be hurt if I allow myself to become too close to others.

(Bartholomew & Horowitz, 1991, p. 244)

The RQ is used extensively in research (e.g., Bookwala & Zdaniul, 1998; Carnelley, Pietromonaco, & Jaffe, 1994; Collins & Feeney, 2000, 2004; Cozzarelli, Sumer, & Major, 1998; Feeney, 1996, 1999a; Hirschberger, Srivastava, Marsh, Cowan, & Cowan, 2009; Pietromonaco & Barrett, 1997; Pistole & Arricale, 2003; Sibley, Fischer, & Liu, 2005; Sumer & Knight, 2001). It also served as the basis for the 30-question Relationship Styles Questionnaire (RSQ) developed by Griffin and Bartholomew (1994), which also has been used in numerous research studies (e.g., Creasey et al., 1999; Creasey & Hesson-McInnis, 2001; Dinero, Conger, Shaver, Widaman, & Larsen-Rife, 2008; DiTommaso, Brannen-McNulty, Ross, & Burgess, 2003; Fraley, Garner, & Shaver, 2000; Fraley & Shaver, 1997, 1998; Scharfe & Bartholomew, 1994).

Lastly, a measurement tool was developed by Brennan et al. (1998) called the Experiences in Close Relationships Scale (ECR). Appendix A contains the ECR scale. A revised version of this scale, the ECR-R is also available for use, but it correlates so highly with the original scale (at .95) that Mikulincer and Shaver (2007a) do not recommend using it because “findings for the new and old scales are usually quite similar in meaning” (p. 90). The ECR scale focused on using the two dimensions of anxiety and avoidance first identified by Ainsworth et al.

(1978). These two dimensions reveal four clusters of attachment. Low avoidance and low anxiety demonstrate secure attachment (the same label as used by Bartholomew, 1990). High avoidance and low anxiety show avoidant attachment (Bartholomew's dismissing attachment category). Low avoidance and high anxiety reveal anxious-ambivalent attachment (Bartholomew's preoccupied attachment category). High avoidance and high anxiety demonstrate disoriented/disorganized attachment (Bartholomew's fearful attachment category). Mikulincer and Shaver (2007a) state that the ECR "has been used in hundreds of studies since 1998, always with high reliability" (p. 91). Examples of the use of the ECR and ECR-R in studies abound (e.g., Barney, 2012; Cotler, 2011; Feeney & Collins, 2001; Feeney & Thrush, 2010; Flavin, 2012; Geller & Bamberger, 2009; Impett, Gordon, & Strachman, 2008; Kane et al., 2007; Locke, 2008; McManus, 2009; Mikulincer, Hirshberger, Nachmias, & Gillath, 2001; Mikulincer & Shaver, 2001; Mikulincer, Shaver, Sapir-Lavid, & Avihou-Kanza, 2009; Moller et al., 2003; Rholes et al., 2007; Schachner, Shaver, & Gillath, 2008; Scotti, 2013; Sibley & Liu, 2004). It is important to note that Mikulincer and Shaver (2007a) state that the ECR's instructions can be "slightly altered to apply to a particular relationship, to one's general orientation in romantic relationships, or to one's general or global 'attachment style' in various kinds of relationships" (p. 91).

Adult attachment and leadership. A few early researchers linked attachment theory to leadership. For example, Tarnopol (1958), a figure contemporary to Bowlby, noted that non-natural leaders, those not nominated by fellow employees as leaders, tended to have more distant father figures and were more attached to their mother figures. However, there are not many additional references to leader-follower relationships viewed through the lens of attachment theory until the 1990s. Since 1990, and especially in the last 15 years, a number of scholars have

begun to link attachment theory to leadership studies in general, and to transformational leadership in particular. Bresnahan and Mitroff (2007) assert that attachment theory should be linked to leadership study and could “strengthen leadership theories as a whole” (p. 607). Indeed, the recent stream of research linking attachment theory and leadership theory is such that Mayseless (2010) asserts “attachment theory has been successfully applied to one of the most central social domains: leadership processes and leader-follower relationships” (p. 271). A survey of this recent research and the directions in which this initial linkage is heading are explored below.

One early article linking the theories of leadership and attachment focuses on the attachment between charismatic leaders and followers in times of crisis (Averbach, 1995). Mayseless and Popper (2007) echo this idea, asserting that in times of crisis, leaders, especially charismatic leaders, function as a secure base in the followers’ attachment system. Towler (2005) performed a study that confirmed a positive link between parental attachment style and charismatic leadership in emerging adults, ages 18 to 25. This “finding suggests that emergent adults who have secure relationships with their parents are more likely to display charismatic leadership behaviors” (Towler, 2005, p. 21). In a theoretical review of models of authority in the workplace, Kahn and Kram (1994) link attachment styles in adults to three internal models of authority that are posited to be active in the workplace. Further, the leader may trigger followers to see them as a secure base during stressful situations at work. Keller and Cacioppe (2001) theorize the links between attachment styles and leader-follower relationships. They suggest that the followers’ expectations of their leaders may be linked to the three attachment styles of followers suggested by Ainsworth et al. (1978): secure, anxious-ambivalent, and avoidant. Keller and Cacioppe suggest that followers who are secure may “anticipate that leaders will be likewise

sensitive, supportive and responsive . . . [and] may enter organizations with very positive leadership expectations” (p. 71). This kind of expectation, in turn, may elicit such behavior from the leader, and help create a leader who fulfills these expectations in a way that is not unlike the concept of a self-fulfilling prophecy. Anxious-ambivalent individuals, however, may “enter organizations uncertain whether to expect, and not feeling deserving of, support and attention from leaders” (p. 72). The self-fulfilling prophecy in this case may result in leaders who “meet their expectations of intermittent support” (p. 72). Finally, avoidant adults tend to have more negative, non-trusting behaviors as they enter the organization and “leaders may view avoidant followers as distant, or even hostile, and withdraw support and attention” (p. 72). This could then fulfill the expectation of the avoidant followers.

Popper and Maysel (2003) assert that the relationship between leader and follower is analogous to that of the relationship between parent and children: “Leaders, like parents, are figures whose role includes guiding, directing, taking charge, and taking care of others less powerful than they and whose fate is highly dependent on them” (p. 42). Evidence for a link between attachment and leadership is found in a longitudinal study in which the effectiveness of 40 adolescents in a group setting was examined in light of attachment classifications from infancy (Englund, Levy, Hyson, & Sroufe, 2000). They found that “adolescents who had been securely attached in infancy were significantly more involved and more confident and displayed greater leadership abilities” (p. 1056). Popper and Amit (2009) also provide evidence that attachment theory is related to leadership. In a study of 402 Israeli soldiers, they found that “secure attachment style formed in early childhood influences the potential to lead” (p. 260). Keller (2003) theorizes that the attachment style of followers may influence the way in which they view their leaders. A follower may “initially attempt to apply previously learned patterns of

interactions to those with supervisors” (p. 147). The attachment style of the follower would influence his or her view of the leader and affect his/her interactions. In an innovative dissertation, Coombe (2010) proposes that attachment theory’s secure base concept can be viewed as an approach to understanding leadership. Secure Base Leadership, as proposed by Coombe, is a leadership-as-relationship approach to the leader-follower interchange and is based on leader member exchange leadership theory. The results of the study demonstrate that Secure Base Leadership is linked positively to follower job satisfaction and leadership effectiveness as rated both by the follower and by the leader’s supervisor. Ghazal (2010) studied attachment to organizations and found that “the less avoidant or anxious an individual feels with their closest colleague and immediate boss, the less avoidant or anxious they will feel with the work team” (p. xii). Further, a worker’s view of an immediate boss as a transformational leader is related to having a relationship that is low in attachment avoidance. Specifically, Ghazal explains that he found that

individual attachment avoidance was related to the level of avoidance experienced in relationship with a closest colleague and work team. However, individual attachment avoidance was not related to the level of avoidance experienced in relationship with an immediate boss. Individuals tend to experience less attachment avoidance and anxiety with a closest colleague than with people in general, more attachment anxiety and avoidance with their work team than with people in general, and even greater attachment anxiety and avoidance with and immediate boss than with people in general. Individuals also tend to experience greater attachment anxiety and avoidance with an immediate boss than with a closest colleague. (p. 168)

Others have linked attachment orientation in leaders and followers to performance and mental health (Davidovitz et al., 2007) and individual differences in how leaders are perceived and emerge in groups (Berson et al., 2006). Bresnahan (2008) found a significant negative correlation between a group's performance when its emergent leader had a more fearful style of attachment. In another dissertation, McManus (2009) linked secure attachment in leaders with a higher score on the Ethical Leadership Scale than leaders who were more avoidant and anxious.

Attachment theory and the workplace setting. Attachment theory has received little attention from researchers in the workplace setting (Harms, 2011). Perhaps one of the best foundations laid for linking attachment and leadership theories stems from examining successful executives as related to mythical leadership, specifically the myth of the John Wayne style of individualism and the related romanticism of independent leadership (Quick, Nelson, & Quick, 1987). This article suggests that the attachment of people should be considered when selecting personnel, specifically that "healthy attachment" (p. 143) in adults may be tied to self-reliant workers who are more adept at handling stressful situations. Less successful executives may have "separation anxiety problems . . . that will encourage him or her to avoid close personal and professional working relationships" (p. 144). Manning (2003) echoes this call for considering attachment when selecting personnel. He theorizes that securely attached managers should be selected for assignments where they will encounter cross-cultural or diversity because they will likely be more successful. Conversely, companies should assist insecurely attached managers "to develop more positive attitudes towards diversity and stronger relational leadership skills" (p. 26). Another study demonstrated that "adult attachment styles significantly influenced the degree to which [followers] preferred their leaders to demonstrate relational behaviors" (Boatwright, Lopez, Sauer, VanDerWege, & Huber, 2010, p. 10). Various suggestions are made from this

study, especially emphasizing that leaders should consider varying their approach to followers based upon the follower's attachment style. For example, Boatwright et al. (2010) suggest that when leading those with a fearful attachment style, leaders should "look for signs that these workers have an issue to voice because they are challenged to be assertive when rejection is possible" (p. 11).

In another early article, Hazen and Shaver (1990) take the argument for examining the relationship between love and work further. In this article, attachment ideas are applied to the work setting, especially the idea that "work is functionally similar to what Bowlby calls 'exploration,' that adult attachment supports work activity just as infant attachment supports exploration" (Hazen & Shaver, 1990, p. 270). Attachment theory indicates "that attachment relationships are important for exploration and growth in adulthood and across the lifespan" (Feeney & Van Vleet, 2010, p. 228). Hazen and Shaver (1990) view attachment theory as a valid approach to understanding behaviors and attitudes at work, which is the setting where leadership theory is most often explored. Specifically, Hazen and Shaver (1990) tested three hypotheses relating to love and work based on the idea that "just as attachments can be more or less healthy or secure, so can forms of work" (Hazen & Shaver, 1990, p. 271). They found, as hypothesized, that securely attached workers tend to be more satisfied in their work, "are least likely to put off work, least likely to have difficulty completing tasks, and least likely to fear failure and rejection from coworkers" (Hazen & Shaver, 1990, p. 275). Additionally, they hypothesized that anxious/ambivalent adults would have the tendency to use work as exploration and would, among other predictions, tend to want to work with others as "a means of satisfying unmet attachment needs" (p. 271). The study confirmed this, showing that anxious/ambivalent adults preferred not to work alone, but also "reported feeling misunderstood and underappreciated,

were motivated by approval, and worried that others would not be impressed with their work performance or would reject them . . . [and] reported that interpersonal concerns interfered with productivity” (p. 275). Finally, avoidant respondents, as predicted, “were more likely to indicate that they feel nervous when not working and that work interferes with their relationships and health” (p. 276). This initial research demonstrates that there are links between attachment orientation and the work setting. This is not unexpected because adult relationships exist in the work setting and a main premise of attachment theory is that it forms a basis for relational interactions throughout the lifespan (Bowlby, 1979).

Studies have linked attachment style to difficulties at work. For example, Hardy and Barkham (1994) found that anxious-ambivalent adults showed more dissatisfaction with relationships at work and performance at work while avoidant adults showed more dissatisfaction with hours of work and social/home relationships. Another early study showed significant correlation between secure and avoidant attachment styles and the Least Preferred Co-Worker measure (Doverspike, Hollis, Justice, & Polomsky, 1997). Joplin, Nelson, and Quick (1999) found that securely attached, or interdependent, individuals were “significantly predictive of lower levels of social dysfunction” (p. 790). Ronan and Mikulincer (2009) performed a study on a sample of 393 employees in Israel and found that job burnout was related to attachment anxiety and avoidance. Similarly, Sumer and Knight (2001) found positive correlations between securely attached individuals and the balance of home and work. Others have linked attachment theory to prosocial behavior at work, namely organizational citizenship behavior (Desivilya, Sabag, & Ashton, 2006; Little, Nelson, Wallace, & Johnson, 2010; Richards & Schat, 2011). Specifically, Desivilya et al. (2006) found a positive correlation between individuals with secure attachment and organizational citizenship behavior, or behaviors which “extend beyond the

formal requirements of the job” (p. 22). Pillai et al. (1999) found that transformational leadership had an indirect influence on organizational citizenship behavior, which provides another link between attachment theory and transformational leadership theory. The study by Richards and Schat (2011) showed consistent results with attachment theory, namely

that avoidant individuals tend to be self-reliant and to disengage from affiliations with others by suppressing negative emotions and not seeking support to deal with work difficulties, whereas anxious individuals tend to display prosocial behavior and [are] more likely to think about quitting their job. (p. 179)

Similarly, attachment theory has been used to examine instrumental helping in the workplace setting (Geller & Bamberger, 2009). As opposed to other forms of helping which tend to focus on a person’s emotional well-being, instrumental helping is defined as help that “focuses on assistance that is more tangible and directly task-focused in nature” (p. 1805). Geller and Bamberger (2009) found that “attachment style exerts a small but significant influence on work-based helping behaviors” (p. 1817). They found that the most secure individuals were thought to be the most helping by their co-workers. Conversely, those with the highest level of attachment anxiety were found to exhibit the least helping behaviors. Game (2008) found implications that “belief and expectations about both the supervisory relationship, and relationships in general, may have important effects on employees’ negative emotional responses in supervisor interactions” (p. 379).

It has also been shown that secure and avoidant individuals prefer to work directly for an organization while those with anxious attachment tend to prefer external contracts (Krausz, Bizman, & Braslavsky, 2001). Johnston (2000) found that a decentralized structure was more likely to be found in a small business whose owners were securely attached. Smith et al. (1999)

suggest that attachment theory could “shed light on the processes underlying people’s identification with social groups” (p. 94). Rom and Mikulincer (2003) test this idea by examining attachment as it relates to small working group processes. They found that anxious and avoidant team members put less effort into team tasks, but that this tendency was mitigated by strong group cohesion. Secure attachment has also been linked positively to hope and trust and negatively to burnout (Simmons, Gooty, Nelson, & Little, 2009).

Transformational leadership and attachment. As demonstrated earlier, descriptions of what makes a leader transformational and what makes an attachment figure a secure base suggest that parallels and connections may exist between the two theories and the findings in their respective fields of research. Shaver and Mikulincer (2010) identify linking attachment theory and transformational leadership as one of the new directions that attachment theory research is headed. In what way does a link appear to be valid between attachment theory and leadership theory? A kernel of this link may best be viewed in light of reviewing some findings on infant attachment. Infants’ attachment and attachment behaviors are reciprocated by the parents’ caregiving system (Ainsworth, Bell, & Stayton, 1974). Ainsworth et al. (1974) assert that “to the extent that there is reciprocity between a newborn’s attachment behaviours and the behaviour of adult figures who have assumed the responsibility for his care, he may be described as integrated into a social world from the beginning” (p. 119). Their research led to the somewhat counter-intuitive and startling assertion that responding to an infant’s cry by picking the infant up and comforting him/her physically led to less instances of the crying behavior. More specifically they state that

we have shown that specific efforts to train an infant, or otherwise consciously to push him into the desirable behavioural mould, then to prolong behaviour deemed to be

changeworthy, whereas to accept him as he is, to respect his natural behavioural patterns as valid, to be accessible to him and to respond sensitively to his signals tends to facilitate the development of the kinds of behaviours commonly believed to be desirable in infancy. (Ainsworth et al., 1974, p. 120)

How does this relate to transformational leadership theory? The language above appears to parallel the description of the leader-follower relationship, especially as viewed through transformational leadership theory. Leaders sometimes expect certain behaviors out of their followers and operate from a place of authority and fear. It may be that this only prolongs the time required to achieve the desired outcomes. Transformational leaders, through such actions as encouraging followers may achieve the desired results more quickly. Reciprocally developed secure attachments may enhance this result even further. Cook (2000) writes that “when people feel comfortable depending on others in general, others (in general) will feel comfortable depending on them” (p. 292). This suggests that leaders operating from a secure attachment base may help their followers feel secure, which in turn enhances the possibility for transformational leadership to occur. Kobak and Hazen (1991) found that there was a relationship between attachment security and marital couple’s behavior in communication. Cook (2000) found indications that attachment security is reciprocated in familial relationships. These findings lead to the idea that “a sensitive and responsive leader, like other security-enhancing attachment figures, can support a broaden-and-build cycle of attachment security in followers” (Mikulincer & Shaver, 2007a, pp. 440-441).

Transformational leadership theory was linked to attachment theory early in the attempt to apply attachment theory to leader-follower relationships, as it is based on the leader eliciting desired responses from followers through their relationship. Popper et al. (2000) were among the

first to link transformational leadership to attachment. They assert that there is a “paucity of studies that examine the developmental antecedents of leadership” (p. 270). However, they find the characteristics of transformational leaders to be similar to characteristics found in adults with a secure attachment style. Indeed, they state that it

is the contention of this research that to have the capacity to become a transformational leader, namely a leader who shows a keen interest and emotional investment in the followers, one needs to have internalized both a positive mode of self and a positive model of others, that is, to have a secure attachment style. (p. 273)

In all three of their studies, they found that “secure attachment style was positively associated ... with the general score of transformational leadership” (p. 282). Popper (2002) used attachment theory to contrast socialized charismatic leaders and personalized charismatic leaders, categories quite similar to transformational and transactional leaders. Although secure attachment showed no significant differences in these two categories, avoidant attachment was found more in personalized charismatic leaders. Shalit, Popper, and Zakay (2010) also found that securely attached followers prefer a socialized charismatic leader.

Manning (2003) argues that since research shows that transformational leaders are more successful in cross-cultural settings that securely attached individuals have similar characteristics as transformational leaders, companies should place securely-attached individuals in cross-cultural settings to help ensure success. He makes the sweeping assertion that attachment theory should be considered the basis for selecting effective personnel. He asserts that

relationship competence, emotional intelligence and transformational leadership all derive from the same underlying “strata” of human motivation, which are relationship tendencies developed early in life, modified through life experience, and lived out in

work and personal experience. Unless these “working models” of relationships, called attachment styles, are taken into account, leadership selection and training efforts will likely have limited success. (p. 22)

In a thorough review of the literature, Popper (2004a) investigates the development of understanding leadership as relationship. Early on, leadership theory was based on studying distant, or great, political leaders. More recent research is on the leader-follower relationship that is often a result of maintaining close personal relationships and interaction, as found in managers in organizations. “Distant transformational leaders, through their messages, decisions, and behaviors, bring their people to rise in the moral scale” (Popper, 2004a, p. 120). The close personal interactions allowed by the manager as leader in a smaller organization allows for the parent-child relational analogy found in attachment theory to be applied to the leader-follower relationship. Mayseless (2010) builds upon this idea of leadership as relationship and specifically relates attachment theory to the leader-follower relationship, including transformational leadership. He concludes his summary review of the literature by asserting that “taken together, these initial studies demonstrate that leaders’ attachment security is positively associated with their pro-social and empowering leadership styles, high leadership efficacy, and positive outcomes for followers” (p. 278).

In a recent study, Moss (2009) suggests that for transformational leaders to enhance their ability to inspire a vision of the future in their followers, they “should first foster a sense of security in followers” (p. 241). This relates to the idea that one partner’s attachment in a relationship dyad can influence the other partner’s behavior. In a lead article in a series of articles on attachment theory and future direction for research, Simpson and Rholes (2010) suggest that one future area for research is to develop normative models on how partners affect

each other through their attachment behavior. They suggest that “even if an individual is securely attached, the way he or she thinks, feels, and behaves within a relationship should be contingent on whether the partner is secure, avoidant, or anxious” (p. 177).

Conclusion

From the literature reviewed in this chapter, it is clear that a new line of research is beginning to bridge the gap between leadership theory and attachment theory. More specifically, attachment theory, as measured by self-report tools, and transformational leadership theory appear to have similar roots in the theory of close relationships. This study will serve as a building block in understanding how attachment styles in adulthood may affect, or be linked to, leadership characteristics as understood by Kouzes and Posner’s (2002a) five practices of exemplary leadership.

Chapter Three: Methods

This chapter focuses on the research methods used for this study. In it, the research design, population, subjects, and characteristics studied are described. The instruments, together with the scoring, reliability, and validity of the instruments, are examined. Finally, the data collection procedures and analytic techniques are presented.

Restatement of the Research Questions

The focus of this study is on the following research questions:

1. To what extent, if at all, is there a relationship between current and former community college CEOs' self-reported attachment, each of the five characteristics of transformational leadership, and overall transformational leadership?
2. To what extent, if at all, are there differences between the self-reported attachment scores of current and former community college CEOs' with regard to various demographic variables?
3. To what extent, if at all, are there relationships between five characteristics of transformational leadership, overall transformational leadership, and various demographic variables among current and former community college CEOs?
4. After controlling for demographic variables, to what extent, if at all, are there relationships between self-reported attachment, five characteristics of transformational leadership, and overall transformational leadership among current and former community college CEOs?

Because the literature regarding these variables was inconclusive, a directional alternative hypothesis was utilized and therefore the "null hypothesis" was adopted.

Research Design

Two instruments with evidence of reliability and validity, together with several demographic data, were implemented through an on-line survey for this quantitative study. The research method selected for this relational and comparative study was self-report surveys. Current and former full-time chief executive officers (CEOs) at California community colleges were asked to participate in this research. This included presidents, superintendent/presidents, and chancellors of California community colleges. These leaders were first asked for their consent to serve as subjects in this study. Following data collection, Pearson-product moment correlation coefficients were used to evaluate the extent of the relationship between self-reported attachment style and transformational leadership characteristics. Analysis controlling for demographic data collected was also performed using multiple regression.

Population and Sample

The population for this study is comprised of current and former presidents, superintendent/presidents and chancellors, known as Chief Executive Officers (CEOs), of California community colleges. The total number of presidents and superintendent/presidents in California's public community colleges matches the number of such colleges: 112. The number of chancellors matches the number of multi-college districts: 23. Personal contacts were used to gather contact information for former CEOs and to make up a total population of 202 individual current and former CEOs. The unit of analysis for this study was a single CEO of public community colleges in California. The broader population of interest to which the reader may wish to generalize the findings includes board members, other administrators of public community colleges, and leaders of higher educational institutions in general.

Characteristics Studied

The characteristics examined in this study include characteristics of transformational leadership and attachment styles. Transformational leadership is a theory of leadership that focuses upon a leader who is able to inspire followers to perform better than they normally would. In other words, transformational leadership “occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group” (Bass, 1990, p. 21). Transformational leadership is assessed using the Leadership Practices Inventory (LPI), a tool developed by Kouzes and Posner (2002a) to measure the five practices of leadership that they associate with transformational leaders; these practices include *Model the Way*, *Inspire a Shared Vision*, *Challenge the Process*, *Encourage the Heart*, and *Enable Others to Act*. The LPI total score combines the individual scores for the five practices into a single measurement. In this study, the LPI total score is used to measure the overall transformational leadership characteristics of those surveyed.

Attachment styles are categories of attachment behaviors. This study utilizes the terms and definitions for attachment styles found in the Experiences in Close Relationships Scale (ECR) measurement tool (Brennan et al., 1998). The ERC classifies attachment in two dimensions: avoidance and anxiety. These two dimensions result in four categories or classifications, namely:

- *secure attachment* for low avoidance and low anxiety
- *avoidant attachment* for high avoidance and low anxiety
- *anxious-ambivalent attachment* for low avoidance and high anxiety
- *disoriented/disorganized attachment* for high avoidance and high anxiety.

Mikulincer and Shaver (2007a) caution, however, that when using the ECR, one should not classify respondents into these four categories, but instead use the two continua as “the dimensions scores . . . in correlational or regression analysis” (p. 498).

Nine demographic variables are the moderators in the study, including (1) sex, (2) age, (3 through 5) position title (dummy coded into three separate dichotomous variables: chancellor, president, and superintendent/president), (6) whether the person is a current or former CEO, (7) years employed in higher education, (8) years employed as a CEO in a community college setting, and (9) years in present position or, if a former CEO, the number of years in the last CEO position held. The demographic questionnaire is contained in Appendix B. To determine the necessary sample size for a multiple regression model, the G*Power 3.1 software program (Faul, Erdfelder, Buchner, & Lang, 2009) was used. With nine independent variables, based on a medium effect size ($f^2 = .15$), an alpha level of $\alpha = .05$, the desired sample size to achieve sufficient power (.80) is 114 respondents. Although less than the desired sample size completed the survey ($n = 74$), it was determined that as current and former CEOs of California community colleges, the respondents likely have demonstrated leadership characteristics to attain the position of CEO. Therefore, although the power was low (.55), the analysis was still completed, with moderate correlations found between attachment orientation and transformational leadership characteristics.

Instrumentation

The two instruments selected for use in this study are the Leadership Practices Inventory (LPI) to measure transformational leadership (Kouzes & Posner, 2002a) and the Experiences in Close Relationships Scale (ECR) to measure attachment style (Brennan et al., 1998). The use of questionnaires to obtain information provides an economical means of collecting data, while also

maintaining consistency and helping to ensure anonymity (McMillan & Schumacher, 2006). The tools selected together with the scoring, reliability, and validity of each instrument are described below.

Leadership Practices Inventory (LPI). The LPI is a self-report transformational leadership measurement tool developed by Kouzes and Posner (2002a). The five characteristics it measures stem from questionnaires that Kouzes and Posner have given to tens of thousands of individuals asking which leadership characteristics or qualities they “most look for or admire in a leader, someone whose direction they would willingly follow” (p. 24). These five practices include *Model the Way*, *Inspire a Shared Vision*, *Challenge the Process*, *Encourage the Heart*, and *Enable Others to Act*.

Scoring of the LPI. The LPI consists of 30 questions, scored on a Likert scale ranging from 1 (*almost never*) to 10 (*almost always*). The measure has six questions for each of the five practices it measures. A score for each of the five practices is calculated by simply adding the scores together for each of the six questions, with a minimum score of 6 and a maximum score of 60. The LPI total score is calculated by averaging the responses to all 30 questions of into a single score. Table 1 displays the mean and standard deviation for the self-evaluation scores for the five practices of leadership according to Kouzes and Posner’s (2002b; 2012b) research.

Table 1

Means and Standard Deviations of Leaders' Self-Reported LPI Scores from Kouzes and Posner (2002b, 2012b)

LPI Practice	<i>M</i>	<i>SD</i>
<i>Model the Way</i>	47.0	6.0
<i>Inspire a Shared Vision</i>	40.6	8.8
<i>Challenge the Process</i>	43.9	6.8
<i>Enable Others to Act</i>	48.7	5.4
<i>Encourage the Heart</i>	43.8	8.0

As the LPI is a copyrighted instrument, it is not reproduced in this study. For each of the five exemplary practices, a higher score indicates a stronger correlation. Researchers are directed to a website (www.leadershipchallenge.com/research) by Kouzes and Posner (2002a) for current psychometric information about the LPI, which is a change from the earlier editions of their work which published this information in an appendix. The 2002 appendix on the website includes information on reliability and validity of the LPI. Means and standard deviations for the five practices are available, based on over one million respondents in Kouzes and Posner's (2002b) extensive database.

Based upon mean scores, Enabling is the leadership practice most frequently reported being used. This is closely followed by Modeling; with the average scores for Challenging and Encouraging being fairly similar. Inspiring is perceived (both by respondents and their constituents) as the leadership practice least frequently engaged in. (Kouzes and Posner, 2002b, p. 4)

A new norms update to percentile ranking for the five practices which the LPI measures is available for review on this website (Kouzes & Posner, 2011). Additionally, a 2012 (Kouzes & Posner, 2012a) table updating percentile rankings for the five practices is available.

Reliability of the LPI. The internal reliability of the LPI for self-reports falls between .75 to .87 for the five practices. Specifically, Kouzes and Posner (2011) report that Cronbach's alpha for *Model the Way* is .77, for *Inspire a Shared Vision* is .87, for *Challenge the Process* is .80, for *Encourage the Heart* is .87, and for *Enable Others to Act* is .75. McMillan and Schumacher (2006) state that an acceptable range of reliability is present when this coefficient falls in the range of .70 to .90; therefore, the LPI's reliability falls within the acceptable range. Other studies have also provided evidence of the reliability of the LPI. For example, in a study of 64 managers, Manning (2002) found the internal consistency reliability coefficients for the five practices of transformational leadership to fall in the range of .81 to .89. In a study of 100 registered nurses, Lummus (2010) found internal consistency reliability to be in the range of .60 to .82. Fields and Herold (1997) found Cronbach's alpha scores in the range of .82 to .92 for all five LPI categories. In a later study, Herold and Fields (2004) examined the internal consistency reliability of the LPI and found the same range of alpha scores (.82 to .92). The test-retest reliability has been at the .90 level or better (Kouzes & Posner, 2002b).

Some do question the reliability of the LPI, however. For example, Zagorsek et al. (2006) examined the psychometric properties of the LPI using item response theory and found that the LPI is most reliable for "respondents with low to medium leadership competence, whereas it becomes increasingly unreliable for high-quality leaders" (p. 180). Despite Zagorsek et al.'s conclusions, there remains strong support for the reliability of the LPI (Fields & Herold, 1997; Herold & Fields, 2004; Kouzes & Posner, 2002b; Lummus, 2010).

Validity of the LPI. Kouzes and Posner's psychometric data provides additional evidence of the validity of the LPI. They assert that "LPI scores have been found, in general, to be unrelated with various demographic characteristics (e.g., age, marital status, years of experience, education level) or organizational features (e.g., size, functional area, line versus staff position)" (2002b, p. 8). Kouzes and Posner (2002b; 2012b) also assert that the LPI has strong face and discriminant validity in that it measures what it says it measures. They also claim it has construct validity. They performed a confirmatory factor analysis and "five factors were extracted with eigenvalues greater than 1.0 and accounting for 60.5 percent of the variance" (2002b, p. 14).

There are some indications that the LPI may not be as strong a measure as generally reported. Carless (2001) evaluated the construct validity of the LPI "by using confirmatory factor analysis to test three alternate conceptual models" (p. 233). Although she found that the LPI has weak discriminant validity between the five constructs, she nevertheless concludes that "the LPI assesses an over-arching construct of transformational leadership" (p. 238).

Experiences in Close Relationships Scale (ECR). The ECR scale is a self-report attachment measurement tool developed by Brennan et al. (1998). The ECR is designed to be used not only to measure attachment dimensions in romantic relationships, but also in other close, personal relationships. The wording of the statements follows the wording used for close relationships suggested by Mikulincer and Shaver (2007a). It uses the two dimensions of attachment first identified by Ainsworth et al., 1978: anxiety and avoidance. These two dimensions reveal four clusters of attachment. When a person has a low avoidance score combined with a low anxiety score, this demonstrates a more secure attachment orientation. A high avoidance score combined with a low anxiety score shows avoidant attachment. A low avoidance score combined with a high anxiety score reveals anxious-ambivalent attachment.

Finally, a person with a high avoidance score and a high anxiety score demonstrates disoriented/disorganized attachment. Thresholds for these categorizations are discussed below. Brennan et al. (1998) combined 14 self-report measures of adult attachment and examined “482 items designed to assess 60 named attachment-related constructs” (p. 51). After removing redundant items, they ended up with 323 items for the computation of the 60 subscale scores. These 60 subscales were then found to roughly cluster into two higher-order dimensions (anxious and avoidant) and the four types of attachment summarized by Bartholomew (1990), namely secure, preoccupied, dismissing, and fearful. Brennan et al. (1998) then had 1086 undergraduates complete the questionnaire containing the 323 items, and after analysis of the results constructed the 36-item ECR scale from the 323 items “with the highest absolute-value correlations with one of the two higher-order factors” (p. 58).

Mikulincer and Shaver (2007a) state that the ECR’s instructions can be “slightly altered to apply to a particular relationship, to one’s general orientation in romantic relationships, or to one’s general or global ‘attachment style’ in various kinds of relationships” (p. 91). The short instructions, in part, state “the following statements concern how you generally feel in close relationships (e.g., with romantic partners, close friends, or family members)” (Mikulincer & Shaver, 2007a, p. 497). For this study, the interest was to capture CEOs’ general or global attachment style. Therefore, the instructions were slightly modified to read “the following statements concern how you generally feel in close relationships (e.g., with close friends, family members, or close colleagues at work).”

Scoring of the ECR. The ECR scale consists of 36 questions each containing a statement for response using a 7-point Likert scale. Appendix A contains the ECR scale in its entirety. Half (18) of the statements are used to measure avoidant attachment and the other half (18) are used to

measure attachment anxiety. The seven responses show degree of agreement or disagreement with each statement, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Corresponding points (ranging from 1 to 7) are assigned to each response; however, 10 of the 36 statements must be reverse-keyed before averaging the answers for each of the two dimensions of attachment being measured. It should be noted that of the 10 statements that must be reverse-keyed, nine are used for measuring the avoidant dimension and only one is used for measuring the anxiety dimension. Higher average scores for each of the sub-measures indicate higher avoidance and anxiety respectively.

A review of several studies using the ECR shows a range of average scores and standard deviations for each sub-measure. For example, the ECR was used in a study by Schachner et al. (2008) in which 142 participants were split into single and coupled participants. The mean for the 69 single participants' attachment anxiety was 3.23 ($SD = 1.06$). For the 73 coupled participants, the mean was 2.93 ($SD = 1.23$). For attachment avoidance the mean for single participants was 3.36 ($SD = 1.07$). For coupled participants, the mean was 3.10 ($SD = 1.18$). Another study with 60 participants had mean anxiety scores of 3.47 ($SD = 1.14$) and mean avoidance scores of 2.79 ($SD = 1.28$; Locke, 2008). Other studies reveal mean anxiety scores of 3.06 ($SD = 1.23$) and 2.74 ($SD = 1.31$; Brassard, Lussier, & Shaver, 2009) and 3.47 ($SD = 0.99$) and 3.59 ($SD = 1.04$; Impett et al., 2008). These studies had avoidance scores of 1.73 ($SD = 0.94$) and 1.86 ($SD = 0.90$; Brassard et al., 2009) and 2.51 ($SD = 0.72$) and 2.13 ($SD = 0.69$; Impett et al., 2008). Mikulincer and Shaver (2007a) caution that when using the ECR, one should “not use the formula in the appendix of Brennan et al.’s (1998) chapter to *classify* people into type categories based on their dimensional scores. Use the dimensions scores themselves in correlational or regression analysis. (The classification equation is misleading)” (p. 498). In other

words, a threshold is not set for classifying a participant as avoidant when a certain score is averaged for the 18 statements associated with the ECR sub-measure of avoidance. Instead, a higher score indicates higher avoidance, and this is accounted for in the statistical analysis selected.

Reliability of the ECR. Mikulincer and Shaver (2007a) state that the ECR “has been used in hundreds of studies since 1998, always with high reliability” (p. 91). The test re-test coefficients fall in the range of .5 and .7, which shows reasonable stability over time. Concerning internal consistency, the Cronbach alpha coefficients are “always near or above .90” (p. 91). According to McMillan and Schumacher (2006), when this coefficient has the range of .70 to .90, it is considered to be in an acceptable range of reliability; in addition, they state that “a personality instrument reporting a reliability coefficient of 0.90 would be judged to have excellent reliability” (p. 188). Therefore, the ECR satisfies the qualifications for reliability. In a survey of 13 publications with 29 study groups, the Cronbach alpha coefficient for the avoidance measure of the ECR ranged from .86 to .95 and the Cronbach alpha coefficient for the anxiety measure ranged from .85 to .96 (Brassard et al., 2009; Feeney, 2007; Feeney & Collins, 2001; Feeney & Thrush, 2010; Fraley et al., 2000; Kane et al., 2007; Impett et al., 2008; Klohnen & Luo, 2003; Locke, 2008; Mikulincer et al., 2001; Mikulincer et al., 2009; Moller et al., 2003; Rholes et al., 2007; Schachner et al., 2008). A number of these articles examine the correlation between the two 18-question groupings. In nine studies, low correlations are seen between the two measures, with r in the range of -.17 to .18 (Fraley et al., 2000; Impett et al., 2008; Mikulincer et al., 2009). In some studies, however, moderate correlation is seen with r in the range of .26 to .38 (Feeney & Thrush, 2010; Locke, 2008; Mikulincer et al., 2009). Although the ECR is designed to be used to measure attachment in any close personal relationship, it is

noteworthy that the higher correlation appears to be seen when the ECR is given to longer-term romantic partners (Mikulincer & Shaver, 2007a). This brief survey of the literature demonstrates the reliability of the ECR in terms of its strong internal consistency. Further, it shows that there is typically low or moderate correlation between the two 18-question measures of anxiety and avoidance.

Validity of the ECR. The ECR has high predictive, construct, and discriminant validity (Crowell, Fraley, & Shaver, 1999; Shaver & Mikulincer, 2010). Predictive validity refers to the measure representing a future behavior. “Construct validity is a judgment about the extent to which interventions and measured variables actually represent targeted, theoretical, underlying psychological constructs and elements” (McMillan & Schumacher, 2006, p. 134). Discriminant validity refers to the idea that what is being measured is not related to another construct.

Crowell et al. (1999) state that self-report measures of adult attachment have discriminant validity. For example, although there is a correlation between attachment security and relationship satisfaction, it is “not high enough to suggest that self-report measures of attachment and measures of satisfaction assess the same construct” (Crowell et al., 1999, p. 257). Mikulincer and Shaver (2007a) add that “correlations between self-reports of attachment style and constructs derived from other theoretical or descriptive frameworks rarely exceed .50 (indicating less than 25% shared variance) and are usually considerably lower” (p. 113). According to Mikulincer and Shaver (2007a), there is little correlation between the avoidance and anxiety scales ($r = .12$). Additionally, “each is highly correlated with its total factor score, $r = .95$, indicating that the measure has strong internal consistency and construct validity” (Cotler, 2011, p. 74). Some, however, have found a moderate correlation between the avoidance and anxiety scale (Scotti, 2013).

The ECR has also been shown to work in other languages, such as Hebrew (Mikulincer et al., 2009). One concern is that the ECR anxiety scale, as outlined above, has only one reverse-scored item. This could make it “vulnerable to acquiescence response bias” (Mikulincer & Shaver, 2007a, p. 91).

Data Collection Procedures

The research was completed by gathering data via online surveys. All participants in the surveys have access to e-mail as leaders of public two-year colleges. It is believed that the convenience of offering an internet-based survey allowed the majority of participants to complete the survey at their convenience. McMillan and Schumacher (2006) assert that internet surveys offer “a reasonable alternative to a mail or interview survey” (p. 240).

The researcher created a survey using the on-line tool Survey Monkey containing the demographic questions, the 36-question ECR scale (Brennan et al., 1998) and the 30-question LPI scale (Kouzes & Posner, 2002a). The non-copyrighted portions of the survey are contained in Appendix B. Use of the ECR does not require permission. Permission was obtained to use the LPI and is presented in Appendix C.

An e-mail was sent to all CEOs in California’s 112 community colleges in 72 districts with instructions on how to participate in the survey. The same survey was sent to the list of former CEOs. The e-mail included information that participation was voluntary and that the identities of those participating would not be part of the data collected. This e-mail invitation is presented in Appendix D. Two weeks were allowed for completion, and two follow up e-mail invitations, presented in Appendices E and F, were sent with additional appeals for participation within 30 days of the initial e-mail. The follow-up e-mails reiterated that participation was

voluntary and that the identities of those participating would not be part of the data collected. Two weeks were allowed for responses after the final e-mail.

Protection of Human Subjects

Approval from the Institutional Review Board of Pepperdine University was obtained prior to conducting this study. Appendix G contains the letter of approval from the Institutional Review Board of Pepperdine University. The approval was contingent upon proof of completion of training in protection of human subjects through the National Institutes of Health, a copy of which is presented in Appendix H. Permission to distribute the survey was granted by the state-wide Office of the Chancellor, a copy of which is presented in Appendix I.

The survey was designed to obtain informed consent before the participants completed the survey. Participation in the study was voluntary with limited time and effort required by the participants. The estimated time for completing the survey was 15 minutes. As part of the recruitment for participation in the study, the participants were informed of the potential benefits from the study as well as the study's purpose.

Appendix B contains a copy of the communication to the participants regarding their informed consent. Participants' identities are not revealed in this dissertation, which only reports data in aggregate (McMillan and Schumacher, 2006). In order to further protect participants' identities from being deduced from the demographic data, no group of less than 10 respondents are included in the aggregate data presented in Chapter 4.

The researcher copied the electronic data obtained from the survey tool onto two flash drives, one for backup purposes. Both are password protected. The data will be kept for at least five years in a locked file cabinet or safe. To further protect the human subjects' confidentiality, the data collected through the survey has been removed from the online repository and from the

computer used by the researcher for analysis of the data. The researcher has allowed the participants to receive an overview of the study results, but not the individual survey responses.

Demographic Survey

The demographic survey items for this research include age, sex, position title (dummy coded into three separate dichotomous variables: chancellor, president, and superintendent/president), whether the person is a current or former CEO, years employed in higher education, years employed as a CEO in a community college setting, and years in present position or, if a former CEO, the number of years in the last CEO position held. The demographic questions are available for review in Appendix B. This information was used to enable the researcher to describe the respondents and to compare differences among respondents to attachment and leadership style.

Data Analysis

Descriptive statistics for each of the study's demographic variables are reported, including their means, standard deviations, and ranges. Cronbach alpha reliability coefficients are calculated for the LPI and ECR measurement tools. The focus of the data analysis is on measuring the possible relationship between the LPI and ECR scale scores. The Pearson product-moment correlation was calculated to identify statistical significance for the characteristics measured in each tool. An alpha level of $p < .05$ was set for significance in the statistical analyses.

Table 2

Data Analysis Chart

Null Hypothesis	Scales/Survey Items	Statistical Approach
<p>Q1. To what extent, if at all, is there a relationship between current and former community college CEOs' self-reported attachment, each of the five characteristics of transformational leadership, and overall transformational leadership?</p>		
Neither of the two attachment measures will be related to the five characteristics of transformational leadership scores or total score.	Attachment scores (anxiety, avoidance). LPI scores (<i>Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart</i>).	Pearson product-moment correlations
<p>Q2. To what extent, if at all, are there differences between the self-reported attachment scores of current and former community college CEOs' with regard to various demographic variables?</p>		
Neither attachment measure will be related to the leaders' age, sex, position title, current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position.	Attachment scores (anxiety, avoidance). Age, sex, position title, current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position gathered from the demographic survey items.	Pearson product-moment correlations
<p>Q3. To what extent, if at all, are there relationships between five characteristics of transformational leadership, overall transformational leadership, and various demographic variables among current and former community college CEOs?</p>		
None of the six measures of transformational leadership will be related to the leaders' age, sex, position title, current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position.	LPI scores aggregated scale scores. Age, sex, position title, current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position gathered from the demographic survey.	Pearson product-moment correlations
<p>Q4. After controlling for demographic variables, to what extent, if at all, are there relationships between self-reported attachment, five characteristics of transformational leadership, and overall transformational leadership among current and former community college CEOs?</p>		
Neither attachment measure will be related to the transformational leadership individual and total scores after controlling for age, sex, position title, current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position.	LPI total score. Age, sex, position title, current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position gathered from the demographic survey items.	Multiple regression and partial Pearson product-moment correlations

This approach accounts for Mikulincer and Shaver's (2007a) caution not to use the results of the ECR to divide respondents into groups or categories. For the four research questions, the scores from the ECR and LPI were compared using Pearson product-moment correlations and multiple regression (Table 2). Specifically, research questions 1-3 use Pearson product-moment correlation and research question 4 uses multiple regression and partial Pearson product-moment correlation. Because the literature regarding these variables was inconclusive, a directional alternative hypothesis was utilized and therefore the "null hypothesis" was adopted.

Summary

This research study examined the relationship between the self-reported leadership style and attachment style of current and former CEOs of California community colleges. Further, the research expands the limited research available linking attachment theory with leadership theory in general, and transformational leadership in particular. The ECR scale (Brennan et al., 1998) and the LPI (Kouzes & Posner, 2002a) were used to examine any correlation between community college CEO attachment style and transformational leadership characteristics. Community colleges now have one new potential set of data to consider when selecting leaders.

Chapter Four: Results

The purpose of this study was to identify the extent to which adult attachment has a relationship, if any, with transformational leadership characteristics among current and former California community college CEOs. In addition, demographic differences among these CEOs related to these variables were examined. A total of 202 current and former CEOs were surveyed and 74 valid responses were received for a response rate of 37%.

Characteristics of Survey Respondents

Table 3 displays the descriptive statistics for selected variables. Ages of the respondents ranged from 36 to 80 years ($M = 60.79$, $SD = 8.44$). There were somewhat more male respondents (59.5%) than female respondents (40.5%). The most common position titles were president (35.1%) and superintendent/president (21.6%). About two-thirds of the respondents (66.2%) were current CEOs while about one-third (33.8%) were former CEOs. The number of years in higher education ranged from 10 to 50 years ($M = 30.01$, $SD = 8.71$). The number of years as CEO ranged from 0 (for a recent hire) to 29 years ($M = 7.60$, $SD = 6.85$). The number of years in the present position, or for former CEOs in the last positions held, ranged from 0 (for a recent hire) to 25 years ($M = 4.57$, $SD = 4.48$).

Table 3

Descriptive Statistics for Selected Variables (N = 74)

Variable	<i>n</i>	%	<i>M</i>	<i>SD</i>
Age of CEO			60.79	8.44
36-49	7	9.5		
50-59	18	24.3		
60-69	39	52.7		
70-80	10	13.5		
Sex				
Male	44	59.5		
Female	30	40.5		
Current Position Title				
Chancellor	8	10.8		
President	26	35.1		
President/Superintendent	16	21.6		
Other	24	32.4		
Current or Former CEO				
Current	49	66.2		
Former	25	33.8		
Years in Higher Education			30.01	8.75
10-19	8	10.8		
20-29	28	37.8		
30-39	28	37.8		
40-50	10	13.5		
Years as CEO			7.60	6.85
Less than 2	13	17.6		
2-5	22	29.7		
6-9	18	24.3		
10-19	15	20.3		
20-29	6	8.1		
Years in Present Position			4.57	4.48
<2	21	28.4		
2-5	34	45.9		
6-9	11	14.9		
10-19	6	8.1		
20-25	2	2.7		

Analysis of Survey Data

Table 4 displays the psychometric characteristics for the eight summated scale scores. These included the six LPI scores along with avoidant attachment and attachment anxiety scores. Cronbach alpha reliability coefficients ranged in size from $\alpha = .74$ to $\alpha = .95$. These findings suggest that all coefficients have acceptable levels of internal reliability (McMillan & Schumacher, 2006). The mean total score for the individual LPI measure range from a low of 52.02 for *Challenge the Process* to a high of 54.54 for *Enable Others to Act*. This is somewhat higher than the mean scores reported by Kouzes and Posner (2002b; 2012b) as listed in Table 1 which range from 40.1 for *Inspire a Shared Vision* to 48.7 for *Enable Others to Act*.

Table 4

Psychometric Characteristics for the Summated Scale Scores (N = 74)

Score	Mean Total Score	No. of Items	<i>M</i>	<i>SD</i>	Low	High	α
LPI <i>Model the Way</i>	52.56	6	8.76	0.73	6.83	9.83	.74
LPI <i>Inspire a Shared Vision</i>	52.56	6	8.76	0.89	5.67	10.00	.86
LPI <i>Challenge the Process</i>	52.02	6	8.67	0.84	5.67	9.83	.82
LPI <i>Enable Others to Act</i>	54.54	6	9.09	0.58	7.17	10.00	.74
LPI <i>Encourage the Heart</i>	53.52	6	8.92	0.89	6.00	10.00	.91
LPI Total Score	53.04	30	8.84	0.68	6.93	9.83	.95
Avoidant Attachment	--	18	2.87	0.75	1.22	4.94	.86
Attachment Anxiety	--	18	2.53	0.85	1.00	4.83	.91

Table 5 displays the inter-correlations among the six LPI scores. All correlations were positive and significant at the $p < .001$ level. The size of the correlation coefficients ranged from $r = .57$ to $r = .89$ with the median sized coefficient being $r = .70$.

Table 5

Inter-Correlations among the Characteristics of Transformational Leadership (N = 74)

Transformational Leadership Score	1	2	3	4	5	6
1. LPI <i>Model the Way</i>	1.00					
2. LPI <i>Inspire a Shared Vision</i>	.77	1.00				
3. LPI <i>Challenge the Process</i>	.70	.82	1.00			
4. LPI <i>Enable Others to Act</i>	.64	.64	.66	1.00		
5. LPI <i>Encourage the Heart</i>	.67	.57	.58	.66	1.00	
6. LPI Total Score	.88	.89	.88	.82	.82	1.00

Note. All correlations were significant at the $p < .001$ level.

Answering the Research Questions

Research Question One. “To what extent, if at all, is there a relationship between current and former community college CEOs’ self-reported attachment, each of the five characteristics of transformational leadership, and overall transformational leadership?” The related null hypothesis predicted that, “Neither of the two attachment measures will be related to the five characteristics of transformational leadership scores or total score.” This research question was answered using Pearson product-moment correlations (Table 6). All 12 resulting correlations were negative and significant at the $p < .05$ level. The largest correlations were between the attachment anxiety score with the LPI *Model the Way* score ($r = -.37, p < .001$) and the attachment anxiety score with the LPI total score ($r = -.37, p < .001$; Table 6). This

combination of findings provided support to reject the null hypothesis for variables related to transformational leadership.

Table 6

*Pearson Product-Moment Correlations for Selected Variables with Attachment Scores
(N = 74)*

Variable	Avoidant Attachment	Attachment Anxiety
Avoidant Attachment	1.00	.32 **
LPI <i>Model the Way</i>	-.29 **	-.37 ****
LPI <i>Inspire a Shared Vision</i>	-.33 ***	-.33 ***
LPI <i>Challenge the Process</i>	-.30 **	-.30 **
LPI <i>Enable Others to Act</i>	-.28 *	-.29 **
LPI <i>Encourage the Heart</i>	-.28 *	-.28 *
LPI Total Score	-.35 ***	-.37 ****
Age	.07	-.11
Chancellor ^a	.00	.06
President ^a	-.17	-.05
Superintendent/President ^a	-.01	.12
Sex ^b	.01	-.06
Current or Former CEO ^c	.09	-.12
Years in Higher Education	-.03	-.04
Years as CEO	-.02	-.07
Years in Present Position	-.01	-.14

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*. ^cCEO: 1 = *Current* 2 = *Former*.

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Research Question Two. “To what extent, if at all, are there differences between the self-reported attachment scores of current and former community college CEOs’ with regard to various demographic variables?” The related null hypothesis predicted that, “Neither of the two attachment measures will be related to the leaders’ age, sex, position title, current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position.” This research question was answered using Pearson product-moment correlations (Table 6) between the nine demographic variables and the two attachment scores. For the resulting 18 correlations, none were statistically significant at the $p < .05$ level. These findings provided support to not reject the null hypothesis.

Research Question Three. “To what extent, if at all, are there relationships between five characteristics of transformational leadership, overall transformational leadership, and various demographic variables among current and former community college CEOs?” The related null hypothesis predicted that, “None of the six measures of transformational leadership will be related to the leaders’ age, sex, position title, current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position.” To answer this question, Pearson product-moment correlations compared the six LPI scores with the nine demographic variables. The reason the number of demographic variables was expanded from seven to nine was that one of the study’s nominal/categorical variables (position title) was dummy coded into three separate dichotomous variables (chancellor, president, and superintendent/president). This analysis yielded 54 correlations (no table shown).

Cohen (1988) suggested some guidelines for interpreting the strength of linear correlation: that a weak correlation typically had an absolute value of $r = .10$ (about one percent of the variance explained), a moderate correlation typically had an absolute value of $r = .30$

(about nine percent of the variance explained) and a strong correlation typically had an absolute value of $r = .50$ (about 25 percent of the variance explained). Therefore, for the sake of parsimony, this results chapter primarily highlights those correlations that were of at least moderate strength to minimize the potential of numerous Type I errors stemming from interpreting and drawing conclusions based on potentially spurious correlations.

For the resulting 54 correlations between the six LPI scores and the nine demographic variables, nine were statistically significant at the $p < .05$ level. Using the Cohen (1988) criteria, 3 of 54 correlations were of moderate strength. Specifically, a moderate strength positive correlation was found between age and the LPI *Enable Others to Act* score ($r = .31, p = .008$). In addition, female CEOs rated themselves higher for the LPI *Challenge the Process* score ($r = .32, p = .005$) and the LPI total score ($r = .30, p = .01$). This combination of findings provided support to reject the null hypothesis for these variables.

Research Question Four. “After controlling for demographic variables, to what extent, if at all, are there relationships between self-reported attachment, five characteristics of transformational leadership, and overall transformational leadership among current and former community college CEOs?” The related null hypothesis predicted that, “Neither of the two attachment measures will be related to the transformational leadership individual and total scores after controlling for leaders’ age, sex, position title, current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position.” To answer this question, two statistical methods were used: multiple regression and partial Pearson product-moment correlation. Tables 7 through 18 show the results of the multiple regression analysis and Table 19 displays results for the partial correlations (Pearson product-moment correlations).

Table 7

Prediction of Avoidant Attachment Based on the LPI Model the Way Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	5.78	1.35		.001
Age	0.02	0.02	.19	.30
Chancellor ^a	-0.45	0.50	-.18	.38
President ^a	-0.68	0.38	-.44	.07
Superintendent/President ^a	-0.52	0.40	-.29	.19
Sex ^b	0.16	0.19	.11	.40
Current CEO ^a	-0.38	0.39	-.24	.33
Years in Higher Education	-0.01	0.01	-.15	.35
Years as CEO	0.00	0.02	.01	.94
Years in Present Position	0.00	0.02	-.02	.88
LPI <i>Model the Way</i>	-0.33	0.13	-.32	.01

Note. Final Model: $F(10, 63) = 1.28, p = .26. R^2 = .169$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 7 displays the results of the regression model that predicted avoidant attachment based on the LPI *Model the Way* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .26$) and accounted for 16.9% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, avoidant attachment, and the LPI *Model the Way* score ($\beta = -.32, p = .01$; Table 7).

Table 8

Prediction of Avoidant Attachment Based on the LPI Inspire a Shared Vision After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	5.52	1.18		.001
Age	0.02	0.02	.20	.28
Chancellor ^a	-0.30	0.49	-.13	.54
President ^a	-0.66	0.37	-.42	.08
Superintendent/President ^a	-0.55	0.39	-.30	.16
Sex ^b	0.18	0.19	.12	.35
Current CEO ^a	-0.35	0.38	-.22	.36
Years in Higher Education	-0.01	0.01	-.12	.46
Years as CEO	0.00	0.02	-.04	.80
Years in Present Position	0.00	0.02	-.01	.96
<i>LPI Inspire a Shared Vision</i>	-0.31	0.10	-.37	.003

Note. Final Model: $F(10, 63) = 1.56, p = .14$. $R^2 = .199$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 8 displays the results of the regression model that predicted avoidant attachment based on the *LPI Inspire a Shared Vision* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .14$) and accounted for 19.9% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, avoidant attachment, and the *LPI Inspire a Shared Vision* score ($\beta = -.37, p = .003$; Table 8).

Table 9

Prediction of Avoidant Attachment Based on the LPI Challenge the Process Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	6.09	1.27		.001
Age	0.02	0.02	.18	.32
Chancellor ^a	-0.36	0.49	-.15	.46
President ^a	-0.77	0.37	-.49	.04
Superintendent/President ^a	-0.63	0.39	-.35	.11
Sex ^b	0.25	0.19	.16	.20
Current CEO ^a	-0.39	0.38	-.25	.31
Years in Higher Education	-0.02	0.01	-.18	.26
Years as CEO	-0.01	0.02	-.05	.79
Years in Present Position	0.01	0.02	.03	.81
LPI Challenge the Process	-0.36	0.11	-.40	.002

Note. Final Model: $F(10, 63) = 1.66, p = .11. R^2 = .209$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = No 1 = Yes. ^bSex: 1 = Male 2 = Female.

Table 9 displays the results of the regression model that predicted avoidant attachment based on the LPI *Challenge the Process* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .11$) and accounted for 20.9% of the variance in the dependent variable. Inspection of the table found the dependent variable was greater for non-presidents ($\beta = -.49, p = .04$); the only one of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, avoidant attachment, and the LPI *Challenge the Process* score ($\beta = -.40, p = .002$; Table 9).

Table 10

Prediction of Avoidant Attachment Based on the LPI Enable Others to Act Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	6.25	1.55		.001
Age	0.02	0.02	.26	.17
Chancellor ^a	-0.50	0.50	-.21	.32
President ^a	-0.62	0.38	-.40	.11
Superintendent/President ^a	-0.47	0.40	-.26	.24
Sex ^b	0.20	0.20	.13	.32
Current CEO ^a	-0.44	0.39	-.28	.27
Years in Higher Education	-0.01	0.01	-.14	.41
Years as CEO	0.00	0.02	-.01	.94
Years in Present Position	0.00	0.02	.00	.99
LPI <i>Enable Others to Act</i>	-0.41	0.17	-.32	.02

Note. Final Model: $F(10, 63) = 1.19, p = .31. R^2 = .159$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 10 displays the results of the regression model that predicted avoidant attachment based on the LPI *Enable Others to Act* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .31$) and accounted for 15.9% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, avoidant attachment, and the LPI *Enable Others to Act* score ($\beta = -.32, p = .02$; Table 10).

Table 11

Prediction of Avoidant Attachment Based on the LPI Encourage the Heart Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	5.43	1.23		.001
Age	0.02	0.02	.22	.23
Chancellor ^a	-0.57	0.50	-.23	.26
President ^a	-0.74	0.37	-.47	.05
Superintendent/President ^a	-0.66	0.40	-.36	.10
Sex ^b	0.18	0.19	.12	.34
Current CEO ^a	-0.47	0.39	-.30	.23
Years in Higher Education	-0.01	0.01	-.15	.38
Years as CEO	-0.01	0.02	-.06	.75
Years in Present Position	0.00	0.02	-.02	.92
LPI <i>Encourage the Heart</i>	-0.28	0.10	-.33	.009

Note. Final Model: $F(10, 63) = 1.34, p = .23. R^2 = .175$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 11 displays the results of the regression model that predicted avoidant attachment based on the LPI *Encourage the Heart* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .23$) and accounted for 17.5% of the variance in the dependent variable. Inspection of the table found the dependent variable was greater for non-presidents ($\beta = -.47, p = .05$); the only one of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, avoidant attachment, and the LPI *Encourage the Heart* score ($\beta = -.33, p = .009$; Table 11).

Table 12

Prediction of Avoidant Attachment Based on the LPI Total Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	6.73	1.37		.001
Age	0.02	0.02	.22	.22
Chancellor ^a	-0.43	0.48	-.18	.38
President ^a	-0.67	0.36	-.43	.07
Superintendent/President ^a	-0.57	0.38	-.32	.14
Sex ^b	0.24	0.19	.16	.20
Current CEO ^a	-0.39	0.38	-.25	.31
Years in Higher Education	-0.01	0.01	-.15	.36
Years as CEO	0.00	0.02	-.02	.92
Years in Present Position	0.00	0.02	.01	.95
LPI Total Score	-0.46	0.14	-.41	.001

Note. Final Model: $F(10, 63) = 1.80, p = .08. R^2 = .222$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 12 displays the results of the regression model that predicted avoidant attachment based on the LPI total score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .08$) and accounted for 22.2% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, avoidant attachment, and the LPI total score ($\beta = -.41, p = .001$; Table 12).

Table 13

Prediction of Attachment Anxiety Based on the LPI Model the Way Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	6.37	1.51		.001
Age	0.00	0.02	-.03	.87
Chancellor ^a	0.22	0.56	.08	.69
President ^a	-0.05	0.42	-.03	.90
Superintendent/President ^a	0.11	0.45	.05	.81
Sex ^b	0.04	0.21	.02	.86
Current CEO ^a	-0.08	0.44	-.04	.86
Years in Higher Education	0.00	0.02	.05	.78
Years as CEO	0.01	0.02	.08	.68
Years in Present Position	-0.03	0.03	-.14	.32
LPI <i>Model the Way</i>	-0.42	0.14	-.37	.004

Note. Final Model: $F(10, 63) = 1.29, p = .26. R^2 = .170$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 13 displays the results of the regression model that predicted attachment anxiety based on the LPI *Model the Way* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .26$) and accounted for 17.0% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, attachment anxiety, and the LPI *Model the Way* score ($\beta = -.37, p = .004$; Table 13).

Table 14

Prediction of Attachment Anxiety Based on the LPI Inspire a Shared Vision Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	5.34	1.37		.001
Age	0.00	0.02	-.03	.87
Chancellor ^a	0.36	0.58	.13	.54
President ^a	-0.05	0.43	-.03	.91
Superintendent/President ^a	0.07	0.45	.03	.88
Sex ^b	0.02	0.22	.01	.93
Current CEO ^a	-0.07	0.44	-.04	.87
Years in Higher Education	0.01	0.02	.08	.64
Years as CEO	0.00	0.02	.00	.99
Years in Present Position	-0.03	0.03	-.13	.36
LPI <i>Inspire a Shared Vision</i>	-0.31	0.12	-.32	.01

Note. Final Model: $F(10, 63) = 1.05, p = .42$. $R^2 = .143$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 14 displays the results of the regression model that predicted attachment anxiety as a measure of leadership based on the LPI *Inspire a Shared Vision* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .42$) and accounted for 14.3% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, attachment anxiety, and the LPI *Inspire a Shared Vision* score ($\beta = -.32, p = .01$; Table 14).

Table 15

Prediction of Attachment Anxiety Based on the LPI Challenge the Process Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	5.51	1.50		.001
Age	0.00	0.02	-.04	.82
Chancellor ^a	0.28	0.58	.10	.63
President ^a	-0.16	0.43	-.09	.71
Superintendent/President ^a	0.00	0.46	.00	.99
Sex ^b	0.06	0.23	.04	.79
Current CEO ^a	-0.12	0.45	-.07	.79
Years in Higher Education	0.00	0.02	.03	.86
Years as CEO	0.00	0.02	.00	.99
Years in Present Position	-0.02	0.03	-.11	.48
LPI Challenge the Process	-0.30	0.13	-.30	.03

Note. Final Model: $F(10, 63) = 0.90, p = .54. R^2 = .125$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 15 displays the results of the regression model that predicted attachment anxiety based on the LPI *Challenge the Process* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .54$) and accounted for 12.5% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, attachment anxiety, and the LPI *Challenge the Process* score ($\beta = -.30, p = .03$; Table 15).

Table 16

Prediction of Attachment Anxiety Based on the LPI Enable Others to Act Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	<i>B</i>	<i>p</i>
Intercept	6.14	1.78		.001
Age	0.00	0.02	.03	.89
Chancellor ^a	0.16	0.58	.06	.78
President ^a	-0.01	0.44	-.01	.97
Superintendent/President ^a	0.14	0.46	.07	.76
Sex ^b	0.04	0.23	.02	.86
Current CEO ^a	-0.15	0.45	-.09	.73
Years in Higher Education	0.01	0.02	.06	.70
Years as CEO	0.00	0.02	.03	.87
Years in Present Position	-0.02	0.03	-.13	.39
LPI <i>Enable Others to Act</i>	-0.41	0.20	-.29	.04

Note. Final Model: $F(10, 63) = 0.82, p = .61. R^2 = .116$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 16 displays the results of the regression model that predicted attachment anxiety based on the LPI *Enable Others to Act* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .61$) and accounted for 11.6% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, attachment anxiety, and the LPI *Enable Others to Act* score ($\beta = -.29, p = .04$; Table 16).

Table 17

Prediction of Attachment Anxiety Based on the LPI Encourage the Heart Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	4.98	1.44		.001
Age	0.00	0.02	-.01	.95
Chancellor ^a	0.11	0.58	.04	.85
President ^a	-0.14	0.44	-.08	.75
Superintendent/President ^a	-0.03	0.46	-.02	.94
Sex ^b	0.01	0.22	.01	.96
Current CEO ^a	-0.19	0.45	-.10	.68
Years in Higher Education	0.01	0.02	.06	.75
Years as CEO	0.00	0.02	-.01	.96
Years in Present Position	-0.03	0.03	-.14	.34
LPI <i>Encourage the Heart</i>	-0.24	0.12	-.25	.05

Note. Final Model: $F(10, 63) = 0.76, p = .67, R^2 = .107$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 17 displays the results of the regression model that predicted attachment anxiety based on the LPI *Encourage the Heart* score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .67$) and accounted for 10.7% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, attachment anxiety, and the LPI *Encourage the Heart* score ($\beta = -.25, p = .05$; Table 17).

Table 18

Prediction of Attachment Anxiety Based on the LPI Total Score After Controlling for Selected Variables (N = 74)

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>
Intercept	6.52	1.60		.001
Age	0.00	0.02	-.01	.96
Chancellor ^a	0.24	0.57	.09	.68
President ^a	-0.07	0.42	-.04	.87
Superintendent/President ^a	0.04	0.45	.02	.92
Sex ^b	0.08	0.22	.05	.71
Current CEO ^a	-0.11	0.44	-.06	.81
Years in Higher Education	0.01	0.02	.05	.74
Years as CEO	0.00	0.02	.03	.89
Years in Present Position	-0.02	0.03	-.12	.41
LPI Total Score	-0.45	0.16	-.36	.006

Note. Final Model: $F(10, 63) = 1.20, p = .31. R^2 = .160$. LPI = *Leadership Practices Inventory*.

^aCoding: 0 = *No* 1 = *Yes*. ^bSex: 1 = *Male* 2 = *Female*.

Table 18 displays the results of the regression model that predicted attachment anxiety based on the LPI total score after controlling for selected variables. The overall ten-variable model was not statistically significant ($p = .31$) and accounted for 16.0% of the variance in the dependent variable. Inspection of the table found none of the nine covariates to be statistically significant at the $p < .05$ level. However, there was a significant negative correlation between the dependent variable, attachment anxiety, and the LPI total score ($\beta = -.36, p = .006$; Table 18).

Table 19 displays a second method to verify the results concerning Research Question 4. Partial correlations (Pearson product-moment correlations between two variables after

controlling for other variables) were used to measure the relationships between the six transformational leadership scores and the two attachment scores after controlling for the nine demographic variables.

Table 19

Partial Correlations for the Relationships Between the Transformational Leadership Scores and the Attachment Scores After Controlling for the Demographic Variables
($N = 74$)

Leadership Score	Avoidant Attachment	Attachment Anxiety
LPI <i>Model the Way</i>	-.31 **	-.35 ***
LPI <i>Inspire a Shared Vision</i>	-.36 ***	-.31 **
LPI <i>Challenge the Process</i>	-.37 ***	-.28 *
LPI <i>Enable Others to Act</i>	-.29 *	-.26 *
LPI <i>Encourage the Heart</i>	-.32 **	-.24 *
LPI Total Score	-.39 ****	-.34 **

Note. Demographic control variables: age, chancellor (yes or no), president (yes or no), superintendent/president (yes or no), sex, current CEO (yes or no), years in higher education, years as CEO, and years in present position.

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Inspection of Table 19 found all partial correlations between the six LPI scores and the two attachment scores to be negative and statistically significant at the $p < .05$ level. The three largest partial correlations occurred between avoidant attachment and the LPI total score ($r_{ab.c} = -.39, p < .001$), the LPI *Challenge the Process* score ($r_{ab.c} = -.37, p < .002$), and the LPI *Inspire a Shared Vision* score ($r_{ab.c} = -.36, p < .003$; Table 19). This combination of findings provides support to reject the null hypothesis for these variables with statistically significant correlations.

Summary

This study identified the extent to which adult attachment as measured by the Experiences in Close Relationships Scale (ECR) was related, if at all, with transformational leadership characteristics as measured by the Leadership Practices Inventory (LPI) among 74 California community college CEOs. Concerning the first research question, all 12 resulting correlations were negative and significant at the $p < .05$ level (Table 6). This means that all five individual scores for the LPI as well as the LPI total score were negatively correlated to attachment anxiety and avoidant attachment.

Regarding the second research question, the null hypothesis was upheld. Neither of the two attachment measures was related to the demographic variables (age, sex, position title (dummy coded into three separate dichotomous variables: chancellor, president, and superintendent/president), current or former CEO status, years in higher education, years employed as a CEO in a community college, and years in present position or, if a former CEO, the number of years in the last CEO position held). Using Pearson product-moment correlations between the nine demographic variables and the two attachment scores resulted in 18 correlations, none of which were statistically significant at the $p < .05$ level (Table 6).

For the third research question, the null hypothesis was rejected. Of the 54 correlations between the six LPI scores and the nine demographic variables, nine were statistically significant at the $p < .05$ level, three of which resulted in correlations of moderate strength (Cohen, 1988). Specifically, age and the LPI individual score for *Enable Others to Act* had a moderate strength, positive correlation ($r = .31, p = .008$). Female CEOs and the LPI individual score for *Challenge the Process* were moderately positively correlated ($r = .32, p = .005$). Finally, female CEOs and the LPI total score were moderately positively correlated ($r = .30, p = .01$). In other words, older

CEOs tended to score themselves higher in the LPI score for *Enable Others to Act* and female CEOs tended to score themselves higher in the LPI individual score for *Challenge the Process* and in the LPI total score.

Concerning the final research question, after controlling for demographic variables, it was found that there was a moderate negative correlation between attachment anxiety and avoidant attachment and all six of the transformational leadership scores (Tables 7 through 19). The higher CEOs rated their attachment anxiety or their avoidant attachment as measured by the ECR, the lower they tended to rate themselves on transformational leadership characteristics as measured by the LPI. In other words, the more secure the CEOs were in their self-perceived attachment style, the more they tended to perceive themselves as exhibiting transformational leadership style. In the final chapter, these findings are compared to the literature, conclusions and implications are drawn, and a series of recommendations are suggested.

Chapter Five: Discussion

This chapter serves to provide analysis and discussion of the results presented in the prior chapter. After restating the purpose of the study and the research questions, this chapter reviews the literature that supports the findings as well as the literature that does not support the findings. Next the implications for leaders in California community colleges are presented and discussed. Recommendations for future research, including questions for future research and possible enhancements in methodology are discussed. Finally, policy and practitioner recommendations are presented.

The purpose of this study was to identify the extent of the relationship, if any, between adult attachment and transformational leadership characteristics in current and former California community college CEOs. Attachment style of these leaders as measured through the Experiences in Close Relationships Scale (ECR) is related to transformational leadership characteristics as measured by the Leadership Practices Inventory (LPI) tool. The information learned may be used as a tool for college presidents to assess effectiveness in their leadership in light of the way in which they approach their personal and work relationships. It may also be used to inform the way in which attachment relationships in California community college senior leadership affect the ability of leaders to practice and improve Kouzes and Posner's (2002a) five practices of transformational leadership. In the current economically challenging times for public education in California, this study may provide valuable information to leaders of community colleges as to ways to improve guiding their institution through change and may help result in stronger institutions to serve California in years to come.

Restatement of the Research Questions

This study focused on the following research questions:

1. To what extent, if at all, is there a relationship between current and former community college CEOs' self-reported attachment, each of the five characteristics of transformational leadership, and overall transformational leadership?
2. To what extent, if at all, are there differences between the self-reported attachment scores of current and former community college CEOs' with regard to various demographic variables?
3. To what extent, if at all, are there relationships between five characteristics of transformational leadership, overall transformational leadership, and various demographic variables among current and former community college CEOs?
4. After controlling for demographic variables, to what extent, if at all, are there relationships between self-reported attachment, five characteristics of transformational leadership, and overall transformational leadership among current and former community college CEOs?

Literature That Supports the Findings

In this section, results from other studies that support what was found in this study are examined. The studies that support the findings for the second research question are examined first, followed by those that support the third research question. Because there is limited research into the relationship between attachment and leadership, the studies that support the first and fourth research questions are examined last.

With regard to the second research question, in the literature reviewed there are many instances where sex as a demographic variable, and a few instances where other demographic variables similar to those in this study, did not show a relationship to attachment style. The large number of studies that list sex (gender) as a demographic variable is to be expected, as much of

the research in adult attachment over the past twenty or so years focuses on adult romantic relationships. Using the ECR, Kane et al. (2007) did not find significant differences due to the sex of the individual in a study of attachment style as related to the level of satisfaction in the relationship of the partner. Although using different demographic variables and measuring conflict in relationships rather than leadership style, Brassard et al. (2009) found only weak correlation between attachment orientation and both income levels, relationship length, number of children, education, and sex. McManus (2009) did not find a relationship between sex and attachment orientation. In their landmark study using the attachment framework to study love and work, Hazen and Shaver (1990) found “few sex differences” (p. 273). In another study of 76 dating couples, sex was not found to be a significant factor as related to attachment orientation as measured by the ECR (Rholes et al., 2007). Although Schachner et al. (2008) note that single men reported higher attachment anxiety than coupled men, this did not reach statistical significance. They found no difference in anxiety or avoidance in attachment between single and coupled women. Using a different attachment measure, the AAS, Roberts et al. (1996) found no differences in attachment orientation of 152 undergraduate students with regard to the participant’s sex. Using the RQ to measure attachment of college students, two studies (Pietromonaco & Barrett, 1997; Pistole & Arricale, 2003) found no sex differences in the self-reported attachment categories.

With regard to the third research question, a small number of studies were reviewed that supported the finding of moderate correlations between LPI scores and sex. No prior studies reviewed in the literature did not support the finding of this study of moderate correlations between LPI scores and age. Zagorsek et al. (2004) found higher scores for females for the individual LPI scores of *Enable Others to Act* and *Encourage the Heart*. Armstrong (1992)

found a significant correlation between head coaches of women's sports win-loss record and the LPI individual score for *Model the Way*, but did not find similar results for head coaches of men's sports other than football.

There were a number of studies reviewed with demographic variables similar to those in this study that supported the finding of no correlations between LPI scores and the demographic variables of years in higher education, years as a CEO, years in present position, current position title, and current or retired status of the CEO. In a study of 25 community college presidents in New England, Skyers (2006) found no significant difference between any of the five individual LPI scores and years of experience as a community college president. In a study of public school principals, Wiestling (2010) found no significant relationships between years of administrative experience and LPI scores. In a study involving 146 private university presidents, Hempowicz (2010) also found no significant relationships between LPI individual scores and number of years in current position. In a study of 242 nursing education leaders, DeLong (2010) did not find a significant relationship between LPI individual scores and years of experience. Laurent and Bradney (2007) found no difference in LPI scores and years of experience in a study of 238 athletic trainers. Leigh et al. (2010) found no significant differences with the demographic variables of education and type of organization and the LPI scores in a study involving 52 leaders. Stout-Stewart's (2005) study of female community college presidents found no significant relationship between LPI scores and the setting of the college, namely urban/inner city, rural, and suburban, was found.

Concerning the first and fourth research questions, the literature attempting to link attachment theory with transformational leadership is limited in scope because it is a more recent area of study. The negative correlation between attachment anxiety and transformational

leadership characteristics found in this study supports Popper et al. (2000) who found that transformational leadership was positively correlated with secure attachment style. Similarly, Popper (2002) found that leaders with avoidant attachment tended to be categorized as personalized charismatic leaders, a category similar to transactional rather than transformational leadership. McManus (2009) found that securely attached leaders scored higher on a test to measure ethical leadership than non-securely attached leaders. Shalit et al. (2010) found that securely attached followers prefer a socialized charismatic leader, a category similar to transformational leadership. The findings of this study also follow Mayseless (2010), who asserts in his summary review of the literature that “leaders’ attachment security is positively associated with their pro-social and empowering leadership styles, high leadership efficacy, and positive outcomes for followers” (p. 278). The results of this study also support Popper and Amit (2009) who found “that secure attachment style influences the potential to lead and that this capacity is essential for leadership as measured by leadership ranking” (p. 244).

Literature That Does Not Support the Findings

In this section, results from other studies that do not support the results from this study are examined. The studies that do not support the findings for the second research question are examined first, followed by those that do not support the third research question. It is important to note that the limited research into the relationship between attachment and leadership did not reveal any studies that do not support the first and last research questions (finding a significant relationship between attachment orientation and transformational leadership characteristics with or without controlling for demographic variables).

Concerning the second research question, some studies indicate that certain demographic variables do relate to attachment orientation, especially sex. For example, in their national

sample of over 8000 respondents using Hazen and Shaver's (1987) forced-choice three-question approach, Mickelson et al. (1997) found seven characteristics that indicate a person would be more likely to be secure in his/her attachment, including sex. Similarly, a number of studies have found that there is a significantly higher number of men who self-report on attachment avoidance than women (Birnbaum, Reis, Mikulincer, Gillath, & Orpaz, 2006; Impett et al., 2008). Davila et al. (1999) found that wives score higher on several sub-scales of another attachment measure, the Revised Adult Attachment Scale, than husbands. Moller et al. (2003) found "possible sex differences in the association of attachment and social support" (p. 365). Using the ASQ, Feeney (1999b) found sex differences as related to attachment in a study of 238 married couples, "with wives being more likely than husbands to endorse the preoccupied style, and less likely to endorse the dismissing style" (p. 175). In a study using the AAQ to measure attachment (Kirkpatrick & Davis, 1994), some differences were found between attachment style of men and women and the way in which they rated their current relationship. Using the ASQ to measure attachment in a study involving 357 college students, Creasey and Hesson-McInnis (2001) found that men had significantly lower scores for attachment anxiety than women. Fraley and Shaver (1998) found similar results, namely that more anxious women experienced greater distress during a separation from their partner.

Regarding the third research question, there were a number of studies reviewed that do not support the finding of this study of moderate correlations between LPI scores and age and sex. For example, in a study of 27 emerging leaders with a comparison group of 25, Leigh et al. (2010) found no significant differences with the demographic variables of age and sex. In a study of 25 community college presidents in New England, Skyers (2006) found no significant difference between any of the five individual LPI scores and sex. Leigh et al. (2010) found no

significant differences with the demographic variables of age and sex and the LPI scores in a study involving 52 leaders. In their study of 250 teacher LPI evaluations of 112 elementary, middle, and high school teachers, Taylor et al. (2007) found no significant differences with regard to demographic variables, including sex and classification as servant leaders. Baal (2011) did not find significant differences in LPI scores with regard to age or sex in a study of 256 secondary principals and science department chairs. In a study of public school principals, Wiestling (2010) found no significant relationships between sex and LPI scores. In a study involving 146 private university presidents, Hempowicz (2010) also found no significant relationships between LPI individual scores and gender. In a study of 242 nursing education leaders, DeLong (2010) did not find a significant relationship between LPI individual scores and age. Manning (2002) found no significant differences between sex and LPI individual or total scores in a study of 64 managers of a regional health and human services agency. Laurent and Bradney (2007) found no difference in LPI scores and age in a study of 238 athletic trainers.

Unlike the current study where no relationship was found between individual LPI scores and years in higher education, years as a CEO, or years in present position, in a study of 126 female community college presidents, Stout-Stewart (2005) found a significant positive relationship between the LPI individual score for *Enable Others to Act* and both years of experience as a community college CEO and experience in current position. Also not in support of the present study, Baal (2011) found a significant difference for the transformational leadership scores for *Model the Way* and *Enable Others to Act* for the demographic variable of science department chairs' years of experience. The more experience the chairs had, the higher the score was for these two measures. Similarly, Lummus (2010) found a positive correlation,

albeit weak, with the LPI individual scores *Inspire a Shared Vision* and *Challenge the Process* and years as a registered nurse.

Synthesis of the Literature as it Relates to the Study

As is seen above, there is mixed support in the literature with some of the results of this study. Except for sex, few studies involving attachment were found that examined the same demographic variables as this study. The literature appears to have nearly equal support for finding some differences in attachment orientation with regard to sex (Birnbaum et al., 2006; Creasey & Hesson-McInnis, 2001; Davila et al., 1999; Feeney, 1999b; Fraley & Shaver, 1998; Impett et al., 2008; Kirkpatrick & Davis, 1994; Mickelson et al., 1997; Moller et al., 2003) and not finding a relationship (Hazen & Shaver, 1990; Kane et al., 2007; McManus, 2009; Pietromonaco & Barrett, 1997; Pistole & Arricale, 2003; Rholes et al., 2007; Roberts et al., 1996; Schachner et al., 2008). One possible explanation of this conflict in the literature is the variety of instruments to measure attachment used in the studies. Another explanation as to the reason for which this study fell in with those who found no difference with regard to attachment and sex is that these studies focused primarily on self-assessed attachment in the context of romantic relationships while this study used the ECR to measure attachment in the context of work relationships. This could have prompted a different mental model in the survey respondents' minds which then could have swayed the way in which the attachment questions were answered. In other words, the "priming" of the respondents' to answer the attachment self-assessment in the context of work may have skewed their self-classification.

It is not surprising that there is mixed support for the relationship between LPI scores and the demographic variables in this study compared to the literature. Kouzes and Posner's (2002a) current psychometric information about the LPI can be found on their website

(www.leadershipchallenge.com/research) and includes references to studies that show no differences in LPI as it relates to sex and to a study that finds women report higher LPI scores than men. In the literature reviewed for this study, however, no study supported the present study in identifying differences with the LPI and age, and several found no relationship (Baal, 2011; DeLong, 2010; Laurent & Bradney, 2007). With regard to sex, many found no relationship (Baal, 2011; Wiestling, 2010; Hempowicz, 2010; Leigh et al., 2010; Manning, 2002; Skyers, 2006; Taylor et al., 2007) while no study in the literature review appears to have found a relationship. Concerning the other demographic variables, a number of studies supported this study in finding no relationship between time in the position and LPI scores (DeLong, 2010; Hempowicz, 2010; Laurent & Bradney, 2007; Skyers, 2006; Wiestling, 2010). Three studies (Baal, 2011; Lummus, 2010; Stout-Stewart, 2005) did find differences. Perhaps mostly because of the similar population in the study, Stout-Stewart (2005) found a significant relationship between the LPI individual score for *Enable Others to Act* and both years of experience as a community college CEO and experience in current position. One reason for these different findings may be from the limited size of the population sampled in this study. For example, the moderate relationship between age and LPI score in this study could be related to the small number of younger CEOs who completed the survey. Only seven CEOs were in the 36-49 age range category. Another reason may stem from the geographic and scope of institutions limitations involved in the present study (California public community colleges). Although California is large and diverse, those selected in this study are more limited in that they all tended to have had careers in higher education with the vast majority having 20 or more years of experience in higher education (66 of the 74 respondents). Another reason for the differences with regard to transformational leadership scores and sex found in this study may stem from the

females CEOs in this study having to challenge the glass ceiling while coming into their leadership roles as CEOs in higher education. Recall that this study found that female CEOs had a higher LPI *Challenge the Process* score and total score than male CEOs. It may be that this reflects the need for females willing to more strongly challenge the status quo and become leaders in their fields, and their self assessment confirms this tendency to *Challenge the Process*. Additionally, the positive correlation found between age and the LPI score for *Enable Others to Act* could be related to the idea that as a leader ages, they may be more likely to excel at delegation to direct reports. More study is needed to explore these possibilities.

Regarding the finding in this study of a moderate positive correlation between transformational leadership and secure attachment, although the number of studies is limited, all support this finding (McManus, 2009; Popper, 2002; Popper & Amit, 2009; Popper et al., 2000; Shalit et al., 2010). Additionally, these results support the predictions of those who posited the theory that there should be a positive link between securely attached leaders and transformational leadership (Mayseless, 2010; Popper, 2004a; Shaver & Mikulincer, 2010; Simpson & Rholes, 2010). Although no studies were found that did not support these findings, it should be emphasized that a limited number of studies exist which examine the relationship between attachment and leadership. More study is needed to confirm the findings of this study and to expand upon it in order to confirm the positive correlation between secure attachment orientation and transformational leadership characteristics in educational leaders, and in leaders in general.

This study contributes to the literature in its confirmation of the theory that a positive link between secure attachment and transformational leadership characteristics is to be expected. The significant moderate correlation found between secure attachment orientation and transformational leadership characteristics confirms that further study should be done to tease out

the relationship between leadership theory and attachment theory, and to personality theory as well. This study confirms that there is much more to explore in the relationship between attachment and leadership, and, if nothing else, it confirms Shaver and Mikulincer's (2010) assertion that in this area of study "the prospects for novel research are numerous" (p. 170).

Conclusions and Implications

The idea of viewing leadership as a relationship (Popper, 2004a) brings additional complexity to the already complex field of leadership studies. Popper (2004a) states that the shift to the view of leadership as relationships rather than as the exclusive influence of a "great man," on the one hand, or as the followers' perception of the leader which is largely the product of their desires, on the other hand, is to some extent analogous to the shift to relational terms that has taken place in psychodynamic theoretical thinking. . . .

This is a shift to a form of thinking that regards the relationship itself as the psychological essence, the important unit to analyze. (p. 111)

Analyzing leadership as relationship brings together the ideas of leadership theory and psychology not only for the leaders but also for the followers and the relationship between leaders and followers. The complexities of personality theory (including attachment theory), leadership theory, organizational dynamics and culture theories, and cognitive notions such as followers' mental models of leadership become intertwined and the ways they interact and are reflected in reality will require much study to decipher. The current study is one small step in this direction. By examining the way in which attachment orientation and transformational leadership characteristics are related in a segment of organizational leaders, this study contributes to the understanding of the relationship between leaders and followers. This study adds to the limited literature linking attachment theory to leadership theory, an area of study in which both Simpson

and Rholes (2010), Popper and Maysless (2003), and Mikulincer and Shaver (2007a) urge additional exploration.

Through a better understanding of the relationship between leaders and followers, leaders are better able to lead their organizations and better accomplish the missions and visions of their organizations. Specifically, this study confirms that California community college CEOs may be able to improve their leadership effectiveness through a better understanding of their attachment orientation. This study's focus on furthering the understanding of the relationship between attachment orientation and transformational leadership advances the idea that to understand the relationship between leaders and followers, the personalities of both the leaders and the followers must be understood. By examining relationships through the lens of attachment orientation, and then advancing the understanding of why this may relate to some leaders exhibiting transformation leadership characteristics more than others, organizations may be helped along the way to either select leaders that better fit their culture or assist existing leaders in meeting desired outcomes of the organization.

The negative correlation between avoidant attachment and attachment anxiety to transformational leadership style confirmed in this study demonstrates that at least a portion of transformational leadership is related to personality theory. Much additional study needs to be done to both replicate this result and to expand the understanding of the relationship between leadership and attachment theory. Nevertheless, this relatively new field of research offers promise of future clarity to the way in which leaders and followers relate and how that relationship affects an organization's ultimate effectiveness.

Policy Recommendations

Although the correlation is moderate, this study demonstrates that there is a relationship between California community college CEOs' self-assessed attachment orientation and transformational leadership characteristics. If the boards of these colleges are looking for leaders who will be more likely to demonstrate desired leadership approaches, assessments of attachment orientation and leadership styles could be included in application screenings as an additional factor in the hiring decisions. This is similar to the idea promoted by Manning (2003), who makes the strong suggestion that attachment theory should be considered the basis for selecting effective personnel. He asserts that

relationship competence, emotional intelligence and transformational leadership all derive from the same underlying "strata" of human motivation, which are relationship tendencies developed early in life, modified through life experience, and lived out in work and personal experience. Unless these "working models" of relationships, called attachment styles, are taken into account, leadership selection and training efforts will likely have limited success. (p. 22)

Including attachment and leadership assessment into the hiring process could strengthen attempts to find the best candidate for these leadership roles.

Additionally, a better hiring process and a better understanding of CEO selection potentially save both time and money for the institution. Over the next five years, a high turnover rate is expected. The length of service for presidents has declined steadily, to 5.7 years for public research universities and 8.8 years for private research universities (Padilla, Ghosh, Fisher, Wilson, & Thornton, 2000). Corrigan (2002) finds the average years served of active college and university presidents to be 6.6 years. Perhaps more concerning is the finding that the average age

of the university president rose from 52.3 years in 1986 to 57.5 years in 2001 (Corrigan, 2002). This indicates that a higher percentage of presidents are nearing the age of eligibility for retirement.

Presidents of colleges and universities are considered, both by default and by the nature of the position, as the leaders of their organizations. Turnover in this position can be perilous to the organization. Lorna and Gwendoly (2003) assert that nothing causes more stress to an institution than the change in the person filling the role of president. Die (1999) understands that “a president’s ability to manage the conflict inherent in the institution’s basic need for constancy and the concomitant necessity for equally constant growth, progress, change and adaptation often takes years to develop” (p. 35). Gregorian and Martin (2004) assert that two or more years of momentum can be lost during the time it takes a new president to learn about the culture of the university he or she is serving.

This potential loss of time involved in a turnover of the presidency is a concern of many colleges and universities, especially ones with frequent turnover. Loss of this kind of time means delays in changes and loss of money, both directly and indirectly, as the institution will be slower in improving and in achieving its mission. A better understanding of factors that contribute to the rapid turnover of the leaders at colleges and universities will help the leaders and those who select them to work toward lengthening the time of service which, in turn, may help the missions of the organizations be fulfilled. If CEO selection processes include an understanding of the kind of characteristics and capabilities of the leader that is desired, better matches of leaders to their organizations may occur. The insights from this study may be used to initiate improvements in hiring processes.

Practitioner Recommendations

The results of this study suggest that current CEOs of California community colleges and aspiring CEOs should consider using the kinds of self-evaluation in this study to broaden their understanding of their own tendencies and approaches to relationships and leadership. Personal leadership development, akin to learning more about oneself, is a never-ending process. By learning more about one's leadership style and attachment orientation, the leaders can attempt to improve themselves, their interactions with followers, and the results they desire to achieve in the organizations they lead. This aligns with the belief that leadership is a combination of talent and skill, that leaders are both born and made (Hersey et al., 1996). Similarly, it aligns with the idea that attachment orientation can change over time (Bowlby, 1969, 1973, 1979, 1980, 1982; Baldwin & Fehr, 1995). Mikulincer and Shaver (2007a) summarize more than 30 studies on adult attachment stability (over periods as little as 1 week to as long as 25 years) by stating that “on average, around 70% of participants received the same attachment classification or chose the same attachment category at different points in time” (p. 141). In other words, approximately 30% of adults experience a change in attachment classification over time, likely a result either of significant life events affecting relationships over time or from measurement unreliability (Baldwin & Fehr, 1995). More recent studies are beginning to examine the way in which adults can intentionally attempt to change their attachment style toward a secure style through systematic interventions (Gillath et al., 2008; Gillath & Shaver, 2007; Mikulincer & Shaver, 2007b) and through the therapist-client bond (Mallinckrodt, 2010; Obegi, 2008). Therefore, if a CEO finds that their attachment orientation tends toward a less secure style, the leader could pursue a positive change in attachment orientation and, therefore, in interactions with followers.

By understanding one's own tendencies in attachment security and transformational leadership characteristics, the leader is able to surround himself or herself with a team that complements the characteristics he or she tends to display. Further, by learning more about oneself and taking the steps to intentionally address an attachment orientation or leadership style through appropriate interventions, the CEO should be able to improve performance by improving the relationships with the followers she or he is leading. Performance improvements, in turn, should allow for system improvements and, ultimately, positively affect the students through better fulfillment of the organization's mission.

Recommendations for Future Research

There are numerous areas of future research that could expand and contribute to the understanding of the complex relationship between attachment orientation and leadership style explored in this study. Because this study is limited to California community college CEOs, it does not include the effects associated with geographic or cultural differences. By replicating this study across broader geography and in different cultures, the relationship found in this study between California community college CEOs' self-assessed attachment orientation and leadership style could be generalized to public community colleges in other regions in the United States or around the world. Additionally, by expanding the leaders studied to include other educational leaders, such as university or K-12 leaders, or leaders in other fields such as business or medicine, the results could be verified and generalized even further.

This study did not address the way in which the CEOs' followers view the attachment orientation and leadership style of the CEOs. Future research should be conducted that takes into account followers' assessments of the leaders' attachment orientation and leadership style. This approach would allow for an examination of a possible relationship between the followers'

mental models, or perceptions, of their leaders' attachment orientation and leadership style with the leaders' own self-perceived leadership style and attachment orientation. This follows the idea of Simpson and Rholes (2010) who suggest that one future area for research is to develop normative models on how partners affect each other through their attachment behavior. They suggest that "even if an individual is securely attached, the way he or she thinks, feels, and behaves within a relationship should be contingent on whether the partner is secure, avoidant, or anxious" (p. 177). Much of the study on leadership focuses more on the leader than the follower. Graen and Uhl-Bien (1995) state that "in leadership research to date, a plethora of studies have been conducted on the leader, but in comparison there has been a dearth of studies in the other two areas. Clearly, more research is needed on followers and the leadership relationship" (p. 222). Conger (1999) adds that "issues surrounding the dispositional character of the followers of both transformational and charismatic leaders have been poorly explored" (p. 161).

Further, the followers' self-assessment of their own attachment orientation should be included in future research so that a fuller picture of the complex relationship between leaders and followers is studied and explored. This would allow for the examination of possible relationships between the followers' attachment orientation and their perception of their leaders' attachment orientation and leadership styles. Since a relationship is a dyad, this would allow for investigation into the possible relationships between the followers' attachment orientation and their leaders' self-perception of their attachment orientation and leadership style.

Future study could also be done to examine possible effects of team inter-relationships as related to leaders' attachment and leadership styles. Most California community college leadership structure has administrative teams consisting of four to eight members who report to the CEO. The dynamics of these administrative teams could influence the self-assessed

attachment orientation and leadership style measured in this study. Another area for further research is to examine the relationship between attachment orientation and leadership over time. This study was not longitudinal in nature and therefore did not attempt to control for the possibility of attachment orientation or leadership style changing over time. Some studies show that self-assessed attachment changes over time (Davila et al., 1999; Mills, 2008). Mikulincer and Shaver (2007a) summarize more than 30 studies on adult attachment stability (over periods as little as one week or as long as 25 years) by stating that “on average, around 70% of participants received the same attachment classification or chose the same attachment category at different points in time” (p. 141). This means that on average, 30% of people classify themselves differently over time.

Additional research appears warranted into the possible differences in transformational leadership characteristics and sex. The mixed support for possible differences with regard to sex found in the literature reviewed and the moderate correlation found in this study suggest that additional research is needed in this area. Another area for further research is in application of attachment theory to organizations. This study did not attempt to examine attachment of leaders to the organization they lead and if this feeling of attachment, which perhaps is related to job satisfaction, may be related to their self-reported attachment orientation in the context of work relationships.

Finally, the scope of this study did not attempt to include the extent, if any, that infant attachment may be linked to adult attachment classifications. Bartholomew (1990) studied the idea “that adult avoidance of intimacy can be understood as a disturbance in the capacity to form interpersonal attachments which stems from the internalization of early adverse experiences within the family” (p. 149). Future study should attempt to examine the possible effects of infant

experience on the ability to securely attach in adulthood, and hence the possible effect on or relationship to leaders' self-assessment of their attachment orientation and leadership style.

Final Summary

Recent research has begun to examine the relationship between leadership theory and the psychology of personal relationships. The gap between these seemingly unrelated fields has been bridged by applying the findings of attachment theory regarding close, personal relationships to the complex interplay between leaders and followers as seen through the lens of transformational leadership theory. This study addresses this relatively new area of investigation.

Attachment theory stems from the belief that a behavior system exists to ensure survival of infants through the long period of dependency on parental care for survival. This attachment between infants and their caregivers led Bowlby (1973, 1980, 1982) to assert that the system affects personal relationships for the entire lifespan, and this attachment theory has become an accepted way in which psychologists understand interpersonal relationships.

Transformational leadership theory attempts to explain the way in which leaders inspire, empower, and influence followers. Kouzes and Posner's (2002a) approach to measuring five practices of exemplary leadership through their understanding of leadership as a relationship has helped begin to bridge the gap between leadership study and the psychology of personal relationships.

This study examines the relationship between attachment theory and transformational leadership theory as measured in California community college chief executive officers. Using self-report surveys, and controlling for demographic variables, these leaders' attachment styles and transformational leadership characteristics were measured and the potential relationship between them examined. Two measures were used: the Leadership Practices Inventory (LPI) to

measure the practices of exemplary leadership and the Experiences in Close Relationships Scale (ECR) to measure attachment style. Statistical tests examined the extent of the relationship between these measures.

Of the 202 current and former California Community College CEOs surveyed, 74 (37%) completed the survey. Using Pearson product-moment correlations, the analysis found no significant correlation between attachment scores and the demographic variables at the $p < .05$ level. Pearson product-moment correlations were also used to compare the five individual LPI scores and the LPI total score with the nine demographic variables. For the resulting 54 correlations, three were found to be at moderate strength. Specifically, a moderate strength positive correlation was found between age and the LPI *Enable Others to Act* score ($r = .31, p = .008$). Further, female CEOs rated themselves higher for the LPI *Challenge the Process* score ($r = .32, p = .005$) and the LPI total score ($r = .30, p = .01$). Finally, the analysis demonstrated moderate correlations between the two attachment scales and the five transformational leadership characteristics in addition to the LPI total score, with all 12 resulting correlations being negative and significant at the $p < .05$ level both before and after controlling for demographic variables. The correlations ranged between $r = -.28$ ($p < .05$) and $r = -.37$ ($p < .001$) before controlling for the demographic variables and between $r = -.24$ ($p < .05$) and $r = -.39$ ($p < .001$) after controlling for the demographic variables.

The moderate correlation found between more securely attached leaders and their self-assessed transformational leadership style found in this study provides insight into the complex fields of leadership study and personality theory. Implications include the possibility of incorporating attachment and leadership measures into employee selection to better match

desired styles to the organization's needs. Individual leaders may also use the relationship explored in this study to further their personal leadership development.

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APPENDIX A: Experiences in Close Relationships Scale (ECR)

The Experiences in Close Relationships Scale (ECR) developed by Brennan et al. (1998) and slightly re-worded by Mikulincer and Shaver (2007a) is presented below. For this study, one additional re-wording in the instructions was included, listing examples as close friends, family members, or close colleagues at work instead of romantic partners, close friends, or family members. The internet survey allows for participants to click on the Likert-type scale responses.

The following statements concern how you generally feel in close relationships (e.g., with close friends, family members, or close colleagues at work). Respond to each statement by indicating how much you agree or disagree with it. Use the following rating scale: Disagree Strongly, Disagree, Disagree Slightly, Neutral/mixed, Agree Slightly, Agree, Strongly Agree.

1. I prefer not to show others how I feel deep down.
2. I worry about being rejected or abandoned.
3. I am very comfortable being close to other people.
4. I worry a lot about my relationships.
5. Just when someone starts to get close to me I find myself pulling away.
6. I worry that others won't care about me as much as I care about them.
7. I get uncomfortable when someone wants to be very close to me.
8. I worry a fair amount about losing my close relationship partners.
9. I don't feel comfortable opening up to others.
10. I often wish that close relationships partners' feelings for me were as strong as my feelings for them.
11. I want to get close to others, but I keep pulling back.
12. I want to get very close to others, and this sometimes scares them away.

13. I am nervous when another person gets close to me.
14. I worry about being alone.
15. I feel comfortable sharing my private thoughts and feelings with others.
16. My desire to be very close sometimes scares people away.
17. I try to avoid getting too close to others.
18. I need a lot of reassurance that close relationship partners really care about me.
19. I find it relatively easy to get close to others.
20. Sometimes I feel that I try to force others to show more feeling, more commitment to our relationship than they otherwise would.
21. I find it difficult to allow myself to depend on close relationship partners.
22. I do not often worry about being abandoned.
23. I prefer not to be too close to others.
24. If I can't get a relationship partner to show interest in me, I get upset or angry.
25. I tell close relationship partners just about everything.
26. I find that my partners don't want to get as close as I would like.
27. I usually discuss my problems and concerns with close others.
28. When I don't have close others around, I feel somewhat anxious and insecure.
29. I feel comfortable depending on others.
30. I get frustrated when my close relationship partners are not around as much as I would like.
31. I don't mind asking close others for comfort, advice, or help.
32. I get frustrated if relationship partners are not available when I need them.
33. It helps to turn to close others in times of need.

34. When other people disapprove of me, I feel really bad about myself.
35. I turn to close relationship partners for many things, including comfort and reassurance.
36. I resent it when my relationship partners spend time away from me.

APPENDIX B: Non-Copyrighted Portion of the Survey

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

Principal Investigator: Joe Wyse

Title of Project: The Relationship Between Attachment Theory and Transformational Leadership in California Community College Chief Executive Officers

1. After reading this consent, you will be asked to click if you agree to participate in the research study being conducted by Joe Wyse under the direction of Dr. Kent Rhodes.
2. The purpose of this study is to identify the extent to which adult attachment has a relationship, if any, with transformational leadership characteristics among California community college Presidents, Superintendent/Presidents and Chancellors (hereafter referred to as community college CEOs). In addition, demographic differences among community college CEOs related to these variables will also be examined. Using self-report surveys, and controlling for demographic variables, these leaders' attachment styles and transformational leadership characteristics will be measured and the potential relationship between them examined.
3. My participation in the study will involve completing an online survey. The survey asks questions related to attachment style, leadership characteristics and several demographic questions. The time estimated to complete the survey is around 10 to 15 minutes.
4. I understand that there are possible benefits to myself or society from this research. These benefits include that the information learned will be available to be used as a means for community college CEOs to assess effectiveness in their leadership in light of the way in which they approach their personal and work relationships. It also will be available to be used to inform the way in which attachment relationships in California community college senior leadership affects the ability of leaders to practice and improve practices of transformational leadership. In the current economically challenging times for public education in California, this may provide valuable information to leaders of community colleges as to ways to improve guiding their institution through change and may help result in stronger institutions to serve California in years to come.
5. I understand that there are certain risks and discomforts that might be associated with this research. A computer will be used for less than 30 minutes which is a minimal risk. There are no practices which may be associated with pain, injury, illness or physical discomfort associated with the completion of the survey. I understand that in the event of physical injury resulting from the research procedures in which I am to participate, no form of compensation is available. Medical treatment may be provided at my own expense or at the expense of my health care insurer which may or may not provide coverage. If I have questions, I should contact my insurer. If any question causes you to feel uncomfortable, you may skip it or decide not to participate in the study.
6. I understand that I may choose not to participate in this research.

7. I understand that my participation is voluntary and that I may refuse to participate and/or withdraw my consent and discontinue participation in the project or activity at any time without penalty or loss of benefits to which I am otherwise entitled.

8. I understand that the investigator will take all reasonable measures to protect the confidentiality of my records and my identity will not be revealed in any publication that may result from this project. I understand that my name or other identifying information will not be gathered as part of this online survey which will ensure that my responses are kept private.

9. I understand that the investigator is willing to answer any inquiries I may have concerning the research herein described. I understand that I may contact Dr. Kent Rhodes, at Pepperdine University, Graduate School of Education and Psychology, 6100 center Drive, Los Angeles, CA 90045, (949) 223-2554 if I have other questions or concerns about this research. If I have questions about my rights as a research participant, I understand that I can contact Dr. Doug Leigh, Chairperson of the Graduate and Professional Schools Institutional Review Board, Pepperdine University, Graduate School of Education and Psychology, 6100 center Drive, Los Angeles, CA 90045, (310) 258-2845.

10. I will be informed of any significant new findings developed during the course of my participation in this research which may have a bearing on my willingness to continue in the study.

11. If you would like to have a copy indicating your consent to participate in this survey, you may print this page for your records. If you would like to have a PDF copy of this informed consent language or if you would like to provide a signature for informed consent, you may do so by emailing the primary investigator.

***12. I understand to my satisfaction the information regarding participation in the research project. All my questions have been answered to my satisfaction. I hereby consent to participate in the research described above.**

Yes

No

Please answer the following questions.

Age

Sex

Male

Female

Current Position Title

Please indicate if you are a current or former CEO of a California community college

Current

Former

Please indicate the number of years employed in higher education:

Please indicate the number of years employed as a CEO in a community college setting:

Please indicate the number of years in present position or, if a former CEO, the number of years you were in your last CEO position:

APPENDIX C: Permission to Use the Leadership Practices Inventory

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News

February 21, 2013

Joe Wyse
22147 Vine Court
Palo Cedro, CA. 96073

Dear Mr. Wyse:

Thank you for your request to use the Leadership Practices Inventory (LPI) in your dissertation. We are willing to allow you to *reproduce* the instrument in written form, as outlined in your request, at no charge. If you prefer to use our electronic distribution of the LPI (vs. making copies of the print materials) you will need to separately contact Lisa Shannon (lshannon@wiley.com) directly for instructions and payment. Permission to use either the written or electronic versions requires the following agreement:

- (1) That the LPI is used only for research purposes and is not sold or used in conjunction with any compensated management development activities;
- (2) That copyright of the LPI, or any derivation of the instrument, is retained by Kouzes Posner International, and that the following copyright statement is included on all copies of the instrument; "Copyright © 2003 James M. Kouzes and Barry Z. Posner. All rights reserved. Used with permission".
- (3) That one (1) **electronic** copy of your dissertation and one (1) copy of all papers, reports, articles, and the like which make use of the LPI data be sent **promptly** to our attention; and.
- (4) That you agree to allow us to include an abstract of your study and any other published papers utilizing the LPI on our various websites.

If the terms outlined above are acceptable, would you indicate so by signing one (1) copy of this letter and returning it to me either via email or by post to; 1548 Camino Monde San Jose, CA 95125. Best wishes for every success with your research project.

Cordially,



Ellen Peterson
Permissions Editor
Epeterson4@gmail.com

I understand and agree to abide by these conditions:

(Signed)  Date: 2/21/13

Expected Date of Completion is: August 2013

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APPENDIX D: First Communication to Participants

August 1, 2013

Dear _____:

My name is Joe Wyse, and I am a doctoral student in organizational leadership at Pepperdine University's Graduate School of Education and Psychology under the supervision of Dr. Kent Rhodes. This research is conducted as partial fulfillment of the dissertation requirements for this program. As a fellow CEO of a California Community College, I am aware of the responsibilities and demands you have in your role as a CEO of a community college. The purpose of the research lies in finding out more about the relationship between transformational leadership characteristics and attachment styles which may help inform how CEOs function in their roles and relationships. Please read the remainder of this cover letter carefully.

I am inviting you to participate in a short survey which will help me identify potential relationships between certain leadership styles and styles of relating in close personal relationships. **Completing this survey is completely voluntary. Should you choose not to complete the survey, it does not affect you in any tangible manner.**

The survey should take under 15 minutes to complete and is available on-line at [CEO Leadership Survey](#). It asks questions on how you generally feel in close relationships (e.g., with close friends, family members, or close colleagues at work) and on how you generally engage in various leadership behaviors. It also asks a number of demographic questions, including your (1) gender, (2) age, (3) position title, (4) whether you are a current or former CEO, (5) the years you have been employed in higher education, (6) the years you have been employed as a CEO in a community college setting, and (7) the number of years in your present position.

The only foreseeable risk associated with participation in this study is the amount of time involved in completing the survey. Your job standing will not be affected by refusal to participate. Although there may not be a direct benefit to you, a potential benefit of your participation is to help provide information as to the way in which a leader's leadership style may be linked to the way in which he or she approaches close, personal relationships, which can include work relationships.

The information presented in the dissertation will describe groups of respondents, and not the individual CEO. All responses will be kept confidential. To protect your privacy, the survey does not ask you to provide any unique identifying information (such as your name or place of employment). You are not required to answer all of the questions in the survey.

I am required to keep the information collected for this study in a secure manner for five years. After the information collected in the survey is no longer required for research purposes, it will be destroyed.

A summary of the findings may be obtained in the next 12 to 18 months. If you wish to receive a summary of the findings, please send a request to me at my e-mail address (██████████). You may request a copy of the findings whether or not you elect to complete the survey.

Please feel free to contact me with any questions or comments regarding this study at the email address above. If you have further questions about the study, you may contact my dissertation chairperson, Dr. Kent Rhodes, at Pepperdine University, Graduate School of Education and Psychology, 6100 center Drive, Los Angeles, CA 90045, (949) 223-2554. If you have any questions about your rights as a study participant, you may contact Dr. Doug Leigh, Chairperson of the Graduate and Professional Schools Institutional Review Board, Pepperdine University, Graduate School of Education and Psychology, 6100 center Drive, Los Angeles, CA 90045, (310) 258-2845.

I would appreciate the survey being completed (again, the link is: [CEO Leadership Survey](#)) by August 15th. I hope you will choose to participate in this study. Thank you for your time.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joe Wyse".

Joe Wyse
Pepperdine University
Graduate School of Education and Psychology
6100 Center Drive
Los Angeles, CA 90045

APPENDIX E: Second Communication to Participants

August 16, 2013

To: California Community College CEOs
From: Joe Wyse, Pepperdine University, Graduate School of Education and Psychology
Re: Survey

Approximately two weeks ago, you should have received an e-mail concerning your requested participation in an on-line survey that will identify any relationships between college CEO's leadership styles and attachment styles in close, personal relationships. **If you have already completed the survey**, I want to thank you for your participation, **you may disregard this communication** and I apologize for bothering you with this follow-up communication.

If, however, you have not had the opportunity to complete the survey ([CEO Leadership Survey](#)), I am asking you if you could do so by August 25th. Below is the letter that was sent in the original communication. I have provided it again because it gives information that is important for you to know about the study. Thank you once again for your time.

Dear_____:

My name is Joe Wyse, and I am a doctoral student in organizational leadership at Pepperdine University's Graduate School of Education and Psychology under the supervision of Dr. Kent Rhodes. This research is conducted as partial fulfillment of the dissertation requirements for this program. As a fellow CEO of a California Community College, I am aware of the responsibilities and demands you have in your role as a CEO of a community college. The purpose of the research lies in finding out more about the relationship between transformational leadership characteristics and attachment styles which may help inform how CEOs function in their roles and relationships. Please read the remainder of this cover letter carefully.

I am inviting you to participate in a short survey which will help me identify potential relationships between certain leadership styles and styles of relating in close personal relationships. **Completing this survey is completely voluntary. Should you choose not to complete the survey, it does not affect you in any tangible manner.**

The survey should take under 15 minutes to complete and is available on-line at [CEO Leadership Survey](#). It asks questions on how you generally feel in close relationships (e.g., with close friends, family members, or close colleagues at work) and on how you generally engage in various leadership behaviors. It also asks a number of demographic questions, including your (1) gender, (2) age, (3) position title, (4) whether you are a current or former CEO, (5) the years you have been employed in higher education, (6) the years you have been employed as a CEO in a community college setting, and (7) the number of years in your present position.

The only foreseeable risk associated with participation in this study is the amount of time involved in completing the survey. Your job standing will not be affected by refusal to participate. Although there may not be a direct benefit to you, a potential benefit of your participation is to help provide

information as to the way in which a leader's leadership style may be linked to the way in which he or she approaches close, personal relationships, which can include work relationships.

The information presented in the dissertation will describe groups of respondents, and not the individual CEO. All responses will be kept confidential. To protect your privacy, the survey does not ask you to provide any unique identifying information (such as your name or place of employment). You are not required to answer all of the questions in the survey.

I am required to keep the information collected for this study in a secure manner for five years. After the information collected in the survey is no longer required for research purposes, it will be destroyed.

A summary of the findings may be obtained in the next 12 to 18 months. If you wish to receive a summary of the findings, please send a request to me at my e-mail address ([REDACTED]). You may request a copy of the findings whether or not you elect to complete the survey.

Please feel free to contact me with any questions or comments regarding this study at the email address above. If you have further questions about the study, you may contact my dissertation chairperson, Dr. Kent Rhodes, at Pepperdine University, Graduate School of Education and Psychology, 6100 center Drive, Los Angeles, CA 90045, (949) 223-2554. If you have any questions about your rights as a study participant, you may contact Dr. Doug Leigh, Chairperson of the Graduate and Professional Schools Institutional Review Board, Pepperdine University, Graduate School of Education and Psychology, 6100 center Drive, Los Angeles, CA 90045, (310) 258-2845.

I would appreciate the survey being completed (again, the link is: [CEO Leadership Survey](#)) by August 15th. I hope you will choose to participate in this study. Thank you for your time.

Sincerely,



Joe Wyse
Pepperdine University
Graduate School of Education and Psychology
6100 Center Drive
Lost Angeles, CA 90045

APPENDIX F: Third Communication to Participants

August 30, 2013

To: California Community College CEOs
 From: Joe Wyse, Pepperdine University, Graduate School of Education and Psychology
 Re: Survey

Approximately two weeks ago, you should have received a follow-up e-mail concerning your requested participation in an on-line survey that will help me identify any relationships between college CEO's leadership styles and attachment styles in close, personal relationships. **If you have already completed the survey, I want to thank you for your participation, you may disregard this communication** and I apologize for bothering you with this follow-up communication. This is the final request for participation.

If, however, you have not had the opportunity to complete the survey [CEO Leadership Survey](#), I am asking you if you could do so by **September 9, 2013**. Below is the letter that was sent in the original communication. I have provided it again because it gives information that is important for you to know about the study. Thank you once again for your time.

Dear _____:

My name is Joe Wyse, and I am a doctoral student in organizational leadership at Pepperdine University's Graduate School of Education and Psychology under the supervision of Dr. Kent Rhodes. This research is conducted as partial fulfillment of the dissertation requirements for this program. As a fellow CEO of a California Community College, I am aware of the responsibilities and demands you have in your role as a CEO of a community college. The purpose of the research lies in finding out more about the relationship between transformational leadership characteristics and attachment styles which may help inform how CEOs function in their roles and relationships. Please read the remainder of this cover letter carefully.

I am inviting you to participate in a short survey which will help me identify potential relationships between certain leadership styles and styles of relating in close personal relationships. **Completing this survey is completely voluntary. Should you choose not to complete the survey, it does not affect you in any tangible manner.**

The survey should take under 15 minutes to complete and is available on-line at [CEO Leadership Survey](#). It asks questions on how you generally feel in close relationships (e.g., with close friends, family members, or close colleagues at work) and on how you generally engage in various leadership behaviors. It also asks a number of demographic questions, including your (1) gender, (2) age, (3) position title, (4) whether you are a current or former CEO, (5) the years you have been employed in higher education, (6) the years you have been employed as a CEO in a community college setting, and (7) the number of years in your present position.

The only foreseeable risk associated with participation in this study is the amount of time involved in completing the survey. Your job standing will not be affected by refusal to participate. Although there may not be a direct benefit to you, a potential benefit of your participation is to help provide

information as to the way in which a leader's leadership style may be linked to the way in which he or she approaches close, personal relationships, which can include work relationships.

The information presented in the dissertation will describe groups of respondents, and not the individual CEO. All responses will be kept confidential. To protect your privacy, the survey does not ask you to provide any unique identifying information (such as your name or place of employment). You are not required to answer all of the questions in the survey.

I am required to keep the information collected for this study in a secure manner for five years. After the information collected in the survey is no longer required for research purposes, it will be destroyed.

A summary of the findings may be obtained in the next 12 to 18 months. If you wish to receive a summary of the findings, please send a request to me at my e-mail address ([REDACTED]). You may request a copy of the findings whether or not you elect to complete the survey.

Please feel free to contact me with any questions or comments regarding this study at the email address above. If you have further questions about the study, you may contact my dissertation chairperson, Dr. Kent Rhodes, at Pepperdine University, Graduate School of Education and Psychology, 6100 center Drive, Los Angeles, CA 90045, (949) 223-2554. If you have any questions about your rights as a study participant, you may contact Dr. Doug Leigh, Chairperson of the Graduate and Professional Schools Institutional Review Board, Pepperdine University, Graduate School of Education and Psychology, 6100 center Drive, Los Angeles, CA 90045, (310) 258-2845.

I would appreciate the survey being completed (again, the link is: [CEO Leadership Survey](#)) by August 15th. I hope you will choose to participate in this study. Thank you for your time.

Sincerely,



Joe Wyse
Pepperdine University
Graduate School of Education and Psychology
6100 Center Drive
Lost Angeles, CA 90045

APPENDIX G: IRB Approval

PEPPERDINE UNIVERSITY

Graduate & Professional Schools Institutional Review Board

July 17, 2013

Joe Wyse
22147 Vine Court
Palo Cedro, CA 96073

Protocol #: E0413D01

Project Title: The Relationship Between Attachment Theory and Transformational Leadership in California Community College Chief Executive Officers

Dear Mr. Wyse,

Thank you for submitting your application, *The Relationship Between Attachment Theory and Transformational Leadership in California Community College Chief Executive Officers*, for exempt review to Pepperdine University's Graduate and Professional Schools Institutional Review Board (GPS IRB). The IRB appreciates the work you and your faculty advisor, Dr. Kent Rhodes, have done on the proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations (45 CFR 46 - <http://www.nihtraining.com/ohsrsite/guidelines/45cfr46.html>) that govern the protections of human subjects. Specifically, section 45 CFR 46.101(b)(2) states:

(b) Unless otherwise required by Department or Agency heads, research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from this policy:

Category (2) of 45 CFR 46.101, research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: a) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and b) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

In addition, your application to waive documentation of consent, as indicated in your **Application for Waiver or Alteration of Informed Consent Procedures** form has been **approved**.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit a **Request for Modification Form** to the GPS IRB. Because your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the GPS IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the GPS IRB as soon as possible. We will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be

reported to the GPS IRB and the appropriate form to be used to report this information can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* (see link to "policy material" at <http://www.pepperdine.edu/irb/graduate/>).

Please refer to the protocol number denoted above in all further communication or correspondence related to this approval. Should you have additional questions, please contact Veronica Jimenez, GPS IRB Manager at gpsirb@pepperdine.edu. On behalf of the GPS IRB, I wish you success in this scholarly pursuit.

Sincerely,



Doug Leigh, Ph.D.
Chair, Graduate and Professional Schools IRB

cc: Dr. Lee Kats, Vice Provost for Research and Strategic Initiatives
Ms. Alexandra Roosa, Director Research and Sponsored Programs
Dr. Kent Rhodes, Graduate School of Education and Psychology

APPENDIX H: Completion Certificate in Protection of Human Subjects



National Cancer Institute
U.S. National Institutes of Health | www.cancer.gov

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Human Participant Protections Education for Research Teams
Completion Certificate

This is to certify that

Joe Wyse

has completed the **Human Participants Protection Education for Research Teams** online course, sponsored by the National Institutes of Health (NIH), on 02/27/2007.

This course included the following:

- key historical events and current issues that impact guidelines and legislation on human participant protection in research.
- ethical principles and guidelines that should assist in resolving the ethical issues inherent in the conduct of research with human participants.
- the use of key ethical principles and federal regulations to protect human participants at various stages in the research process.
- a description of guidelines for the protection of special populations in research.
- a definition of informed consent and components necessary for a valid consent.
- a description of the role of the IRB in the research process.
- the roles, responsibilities, and interactions of federal agencies, institutions, and researchers in conducting research with human participants.

National Institutes of Health
<http://www.nih.gov>

A Service of the National Cancer Institute



APPENDIX I: California Community College System Chancellor's Approval



STATE OF CALIFORNIA

BRICE W. HARRIS, CHANCELLOR

CALIFORNIA COMMUNITY COLLEGES
CHANCELLOR'S OFFICE
1102 Q STREET
SACRAMENTO, CA 95811-6549
(916) 445-8752
<http://www.cccco.edu>



PERMISSION TO CONDUCT SURVEY TO COMMUNITY COLLEGE CEOs

I hereby grant permission to Joe Wyse to conduct a survey to current and former California Community College CEOs for his doctoral dissertation. I believe this survey will not only be beneficial to him, but it may also provide insight into understanding characteristics of leaders in our large, complex 112 college system. Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in blue ink that reads "Brice W. Harris".

Brice W. Harris
Chancellor