The Impact of Authentic Leadership and Ethical Organizational Culture on Auditor Behavior

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THE IMPACT OF AUTHENTIC LEADERSHIP AND ETHICAL ORGANIZATIONAL CULTURE ON AUDITOR BEHAVIOR

by

JANICE TAYLOR MORRIS

A dissertation submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy
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ABSTRACT

Recently, unprofessional behavior resulted in several high-profile financial scandals and business failures. Many blamed external auditors of these companies' financial statements for failing to detect and/or report errors and fraud that led to the failures. Leaders within major audit firms have been urged to foster more ethical firm environments as a means of inhibiting dysfunctional auditor behavior (DAB) such as premature sign-off, gathering insufficient audit evidence, and the underreporting of time spent conducting an audit. This advice is based on two assumptions: (1) auditor behavior is one element of audit quality and (2) the behavior of employees is influenced by corporate culture.

Little empirical evidence exists, however, about audit firm cultures, and there has been even less research on how leadership and the culture of these firms impact audit quality. This study was designed to begin to fill this gap in the literature by examining subordinates' perceptions of leaders within the audit profession and the leaders' likely impact on firm culture and auditor behavior. Based on an analysis of surveys completed by 120 in-charge auditors (i.e., auditors with two-to-five years experience), the study suggests that most firm leaders exhibit high levels of the four constructs (transparency, ethical perspective, self-awareness, balanced processing) that comprise authentic leadership. Further, firm cultures were perceived by most participants to be highly ethical. These measures of authentic leadership and ethical organizational culture were found to be negatively correlated, at a statistically significant level, with in-charge auditors' perceptions of the frequency of DAB.
Demographic data and measures of the participants’ ethical orientation were also gathered. These variables were found to have little moderating effect on auditor behavior when regressed either as independent variables or as co-variants to measures of ethical firm culture.

This study is important because it helps to explain factors impacting variance in dysfunctional auditor behavior. The findings from this research suggest that when subordinates perceive their leadership as authentic and view themselves as part of an ethical firm culture, there likely will be a decline in the frequency of dysfunctional auditor behavior.
DEDICATION

Joel P. Morris
and
Kathryn J. Morris

My wonderful, talented, and beautiful children: This dissertation is dedicated to you.

It could not have been completed—and would never have meant as much—without your love, support, and belief in me.
ACKNOWLEDGEMENTS

I wish to express my thanks to the many contributors to and supporters of this dissertation journey. My deepest appreciation and gratitude goes to the members of my dissertation committee. Dr. Robert (Bob) Donmoyer, chair, and Dr. Fred Galloway have been my supporters, encouragers, and mentors throughout the entire Ph.D. program and the writing of this dissertation. Both are wonderful professors, gifted researchers, and have tremendous respect and concern for their students. I have learned so much from them. Bob, thank you for the attention to detail you gave to this work and for your unflagging enthusiasm for the project. Fred, thank you for all of the statistical advice you provided and for essentially serving, without the formal recognition, as co-chair to this dissertation. I will be forever indebted to both of you and will treasure the friendships we have formed. Dr. Loren Margheim and Dr. Steve Conroy from USD’s School of Business Administration, both subject-area experts quoted throughout this dissertation, were invaluable resources who gave willingly of their time and knowledge. Thank you so much for the insights that you each gave, the suggestions offered, and the encouragement you provided. I could not have completed this work without your advice and support.

My gratitude also goes to the other scholars cited in the dissertation who paved the way for the research conducted here, especially those who gave permission for use of their instruments in the study. I also thank the auditors who completed my survey—I know it took valuable time and the study would have been impossible without you.

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My brothers and sisters have emailed and phoned me with encouragement and words of wisdom and mentorship.

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My friends in the doctoral program have become my extended family through this process and it is impossible to believe that I would have completed the program without their support. I especially want to thank the cave dwellers—I’ll never think of this journey without remembering our days together and the support that being in the cave provided. And, finally I thank the very-near-Dr. Robin McCoy, my dearest and forever friend, for always being there to motivate me, encourage me, push me to go work-out, share successes and failures, provide much-needed critical feedback, and for your wonderfully special friendship.

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CHAPTER ONE
OVERVIEW OF THE STUDY

Background

In recent years, the loss of professionalism, integrity, and ethics led to multiple business failures and financial scandals. *Enron, WorldCom, Adelphia, Tyco, Martha Stewart,* and *Parmalat* are company names that have become synonymous with unprofessional and unethical practices. Many other serious ethical lapses have been documented, including those in the mutual fund industry and the sub-prime mortgage industry. The ethical wrong-doings in the sub-prime mortgage industry have been, in large part, responsible for the current problems in the global economy.

Even when the impact of unprofessional behavior and ethical lapses has been less dramatic, Copeland (2005) reminds us that the fallout from these types of failures includes the destruction of some of the world’s largest companies and the resultant loss in hundreds of billions of dollars in shareholder value. He notes that the failures resulting from ethical lapses have put hundreds of thousands of people out of work with little or no warning or severance pay; wiped out retirement plans and investments; and damaged trust in financial markets and the information that supports these markets. Finally, Copeland (2005) asserts that “these scandals have ruined the good name and reputation of hundreds of thousands of people who spent their entire careers working in the capital markets with honesty and integrity“(p. 36).

Nearly two thousand years ago, Roman satirical poet Juvenal (unknown/1992) rhetorically asked, “Quis custodiet ipsos custodes?,” which translates to “Who shall guard the guardians?” Juvenal was remarking upon Roman licentiousness, but his
question has come to stand for the continued problem that those entrusted to enforce society's moral standards are subject to the same human failings as those they regulate. Due to the number of business scandals and failures, the auditing profession, long considered the guardians—the gate-keepers, protectors, and advocates for investors, creditors and other stakeholders in the financial reporting arena—has been perceived to have failed in its guardian tasks (Knutson, 1994; Rabinowitz, 1996). Rockness and Rockness (2005) noted that many, including all of the world's largest, Certified Public Accountant (CPA) firms have issued unqualified opinions on a number of grossly inaccurate, if not fraudulent, financial statements. When the auditing (i.e., CPA) firm issues an unqualified opinion, it is opining that the audited company's financial statements are prepared in accordance with generally accepted accounting principles, rules issued by the Financial Accounting Standards Board (FASB) or its predecessors, and that the statements and related disclosures are fair and correct, in all material respects, and can be relied upon for decision making. Statement on Auditing Standards (SAS) No. 1 specifies that "the auditor has a responsibility to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud" (American Institute of Certified Public Accountants, 2006).

Auditors have failed to detect material errors and irregularities in their clients' financial statements and, as Copeland (2005) asserts, the reputation of these firms has suffered. It was believed that the auditors did not exercise due diligence in conducting the audits and therefore they failed to discover a number of significant financial frauds. Further, many believed that, in some cases, the auditors actually colluded with clients to
hide the frauds and egregious accounting errors that were later uncovered. Wyatt (2004), in fact, has argued that the auditors' lack of due diligence and alleged collusion were primarily motivated by greed. In addition to wanting to keep the audit client, a desire to continue to provide lucrative consulting and other revenue generating services for that same client proved a strong incentive for the auditors to look the other way when presented with possible fraud and irregularities in the financial statements.

In response to the alleged scandalous behavior and misconduct by corporate management and external auditors, the United States Congress passed the Sarbanes-Oxley Act of 2002 (SOX), viewed by many as the most significant legislation affecting the accounting profession since the Securities Acts of 1933 and 1934 (AICPA, 2002; Donaldson, 2005). Primary provisions of SOX limited the client services offered by CPA firms; provided whistleblower protection for both corporations and CPA firms; and established the Public Company Accounting Oversight Board (PCAOB) to oversee the auditing profession in the conduct of audits of publicly traded corporations.

Many provisions of SOX have, as a basis, the intent to ensure the ethical conduct required of auditors. The limiting of services was designed to help the auditor maintain an independent attitude in the conduct of the audit, and one of the charges for the PCAOB was to set quality and ethical standards for public company auditors. As noted, SOX was enacted in response to ethical lapses by leaders in both corporate America and audit firms. Former Securities and Exchange Commission (SEC) chairman, William Donaldson, suggested that while most of corporate America was run by honest and dedicated people, events led standards to erode among "the very best ...even... the gatekeepers [i.e., the auditors] charged with ensuring legal and accounting integrity"
Donaldson (2003). What Donaldson implied is that certain leaders in both corporations and in public accounting were swayed by their professional environments to act in unethical manners. These leaders, through their actions, impact an organization's ethical culture—or climate—which impacts organizational goals and may impact the behavior of members of the organization.

Sama and Shoaf (2008) noted when Arthur Andersen LLP was indicted for its role in the Enron case, that even though many within the firm had never heard of Enron, the entire firm's culture was under indictment:

Certainly, the corporate climate contained elements antithetical to ethical leadership. The faults cited [in the Enron case] are similar to those mentioned in the … lawsuit against Andersen for its audits of WorldCom: that in its professional position of holding the public trust, it was reckless to overlook any questionable items and to acquiesce to what was identified as improper accounting (Gullapalli, 2005a). The pressure to maintain the goodwill of large clients overcame the more important values of ethical leadership. (pp. 42 – 43)

Wyatt (2004) believes that the cultures of the firms—such as Andersen—had changed from one of professionalism to one of greed and urged a move back toward a professional culture.

Jenkins, Deis, Bedard, and Curtis (2008) have suggested “the public accounting profession in the United States has a long history of struggling to define its public roles and responsibilities, which form the basis of its cultural identity” (p. 47). Leaders in the auditing profession are being forced to review their roles and responsibilities and to see the profession in light of its now governmentally regulated state. Further, they are being asked to foster a sense of duty and social responsibility in the members of the profession.

According to Weaver, Trevino, and Cochran (1999), many large organizations have
responded to pressures from the legal and regulatory environment by implementing policies and procedures aimed at creating more ethical cultures within the organizations.

Not only is the importance of ethical and professional behavior by auditors understood by academics, oversight boards, and Congress, it is deemed critical by the auditors' clients. Harris Interactive conducted the Grant Thornton Survey of Business Leaders in 2004 (Grant Thornton, 2005) and found that 61 percent of business leaders who participated in the study believed that inaccurate financial statements (a risk that the audit is designed to mitigate) were a critical or very serious threat to their companies—a percentage larger than that associated with terrorism, natural disasters, a stagnant economy, product recall or litigation. Given the consequences of auditor misconduct, it is imperative that all members of the profession act ethically—in a way that produces high quality audits and creates ethical organizational cultures.

If auditors are acting responsibly and conducting quality audits, the unethical behaviors of corporate America may not result in the financial devastation created by so many of the high profile scandals of the early 2000s. However, there is concern that we may still face more scandals in the future. One of the key findings from a 2007 National Business Ethics Survey (Ethics Resource Center, 2007) emphasizes that unethical behavior is still a serious threat to the business community:

More than five years after Enron and other corporate ethics debacles, businesses of all size, type, and ownership show little—if any—meaningful reduction in their enterprise-wide risk of unethical behavior. The situation is ripe for another major corporate scandal. Despite new regulation and significant resources now dedicated to decreasing misconduct and increasing reporting of misconduct, the ethics risk landscape in business is as treacherous as it was before implementation of the Sarbanes-Oxley Act of 2002. (p. 1)
Unfortunately, in early 2008, this prediction looked as if it might be justified. One of the world’s largest auditing firms was accused in a United States Department of Justice investigator’s report of contributing to accounting and financial errors "by enabling [a client company] to persist and, in some instances, precipitating the company's departures from applicable accounting standards" (Beck, 2008, para. 4). The investigator further commented, "'In the post-Enron era, one of the lessons should have been that accountants need to be skeptical, strong, and independent...You didn't have any of those attributes here'" (Beck, para. 8). The audit firm has denied all allegations and has indicated that a review will affirm its position. However, it is apparent from reports such as this that the audit firms are, now more than ever, under scrutiny from the government and the general public.

Auditors are the gatekeepers for financial investors, creditors and the many others who rely upon the auditors' honesty and ethical work to provide accurate, quality information. I believe that it is critical that we understand how the formally designated leaders of auditing firms impact the ethical cultures of their firms and how the ethical cultures, which presumably are influenced by CPA firm leaders, impact audit quality through the ethical work habits of auditors, and, especially, the work habits of in-charge auditors who supervise the gathering of the evidence used to produce an audit opinion.

Problem Statement/Purpose of the Study

Significant research has previously been conducted in the area of ethical reasoning of auditors (e.g., Ponemon, 1988, 1990, 1992a) and other research (e.g., Forte, 1

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1 Much of the contemporary leadership literature emphasizes that the notion of leadership is not a synonym for positional authority. In the auditing profession, and also in the literature on authentic leadership, however, leadership and positional authority are closely aligned. Consequently, in this dissertation, the terms leader and leadership are associated with those who have been formally designated as the leadership in auditing firms (i.e., managers and partners).
2004), while not focusing on auditors, has looked at the interaction of organizational ethical climate types and moral reasoning abilities of corporate managers. However, only two recent studies (Douglas, Davidson, and Schwartz, 2001; Patterson, 2001) have looked directly at the relationship between organizational environment and ethical sensitivity of auditors. Jenkins, et al. (2008) note that “little empirical evidence exists about cultures within firms” due primarily to the “proprietary nature of the construct” (p. 49). They further indicate a “critical issue that is worthy of investigation is how changes in culture or acculturation processes impact audit quality” (p. 49) and suggest that the link between culture and audit quality are of importance to both the PCAOB and the public.

As part of a qualitative mini-study I conducted in late 2006, leaders within several large CPA firms indicated that they were responsible for creating an environment where their subordinates were encouraged to engage in ethical auditor behavior. All of the partners, directors, and managers interviewed agreed that they were responsible for setting an ethical tone within their firms—and that the firms were actively engaged in trying to instill a moral work ethic in their audit staff at all levels.

In addition to interviewing firm leaders, several audit seniors (i.e., in-charge auditors) and audit staff were interviewed to elicit their perceptions of their firm’s leadership. One finding from this study was the impetus for conducting the research for this dissertation: The seniors and staff, while not specifically suggesting that their firm leaders were unethical, did not perceive that the leaders were as concerned with ethical conduct as the leaders suggested. As the Ethics Resource Center (2007) notes on its website: “Employee perspectives on ethics truly matter because they provide a real view
of what is happening within organizations. Such input helps leaders assess effectiveness and risk using models based on real—not theoretical—information” (http://ethics.org/research/nbes.asp, para. 3).

Leaders within the audit firms must begin to examine their own leadership styles and one means of accomplishing this task is to let them know how they are perceived by the in-charge auditors in their employ. There is a vast arena of theory surrounding leadership; however, the ethical nature of leader behavior is imperative in auditing given its two-master structure: the firms are hired by clients and paid by clients, but they are responsible to act in the interest of the decision-making public. As such, this study examined the in-charge auditors’ (who have most likely been working at their audit firm a range of two to six years) perceptions of their leaders through an ethics-based framework: that of the authentic leader, discussed more fully in the literature review.

Given the significance of audit firm leadership and ethical culture—and employee perception of both—the purpose of this study was to examine the relationship between one measure of audit quality, dysfunctional auditor behavior, and in-charge auditors’ perceptions of their firms’ ethical culture and authentic leadership, as moderated by the in-charge auditors’ own ethical reasoning position and other characteristics. Dysfunctional auditor behavior has been used in prior studies (see Kelley and Margheim, 1990; Otley and Pierce, 1996a) as one means of partially measuring audit quality. Specifically the behaviors under review in this study are under-reporting of time and other behaviors referred to as audit quality reduction acts or audit quality reduction behaviors. According to Herrbach (2001), “audit quality reduction behaviours are defined as actions taken by an auditor during an engagement that reduce evidence-
gathering effectiveness inappropriately. These acts can threaten audit quality or damage the reputation of the profession” (p. 787).

Research Questions

In concert with findings of the Public Oversight Board (POB) and other scholarly research, I started with the assumption that the ethical culture of a firm is created primarily by the firm’s leadership—and is a product of the perceptions of the firm’s subordinates regarding these leaders’ authentic leadership abilities. As a consequence, the following questions were explored by this study:

Research Question 1: What are the perceptions that in-charge auditors have about their firms’ ethical culture; about the level of authentic leadership exhibited within the firm; and about the frequency of selected dysfunctional audit behaviors by most in-charge auditors, specifically relating to under-reporting of time and other audit quality reduction acts such as premature sign-off of audit procedures; and what are the ethical attitudes of these in-charge auditors?

Research Question 2: To what extent are variations in the frequency of dysfunctional audit behaviors of in-charge auditors related to (1) in-charge auditors’ perceptions about the authentic leadership within their firms; (2) auditors’ perceptions about the audit firms’ ethical cultures; (3) the in-charge auditors’ personal ethical attitudes; and (4) selected auditor characteristics (e.g., age, sex, ethics training, and commitment to auditing profession)?

Methodological Overview

There is an extensive literature, which will be discussed in some detail in the next chapter, on the individual topics of leadership behavior style, organizational ethical
culture, and individual ethical attitudes. Research has also been conducted on audit quality as measured by a variety of factors, including what was a key variable in this study: dysfunctional auditor behaviors.

For this dissertation, I proposed a model that, when tested in this study, would help determine the degree in which these concepts are related (see Figure 1 at the end of this chapter). The following related hypotheses, stated in null form, were developed to inform the relationship between the dependent variable of frequency of selected dysfunctional auditor behaviors and the independent variables of perceived authentic leadership, perceived ethical culture, in-charge auditors’ ethical reasoning position (i.e., orientation), and selected auditor characteristics:

H₀₁: Perceptions of authentic leadership are not related to the frequency of selected dysfunctional audit behaviors.

H₀₂: Perceptions of firms’ ethical cultures are not related to the frequency of dysfunctional audit behaviors.

H₀₃: Ethical positions of in-charge auditors are not related to frequency of dysfunctional audit behavior.

H₀₄: Selected auditor characteristics are not related to frequency of dysfunctional audit behavior.

Figure 2 represents a more integrated modeling of these variables, defining an inter-related effect between authentic leadership style and a firm’s ethical culture. The model also adds the in-charge auditors’ ethical reasoning position as well as their personal demographic information and characteristics as co-variants in the model, which
act as modifiers to the relationship between ethical culture and DAB frequency. Three further hypotheses, again presented in null form, are suggested by this integrated model.

\( H_05: \) Perceptions of authentic leadership style is not related to perceptions of firms' ethical cultures that are perceived to be more ethical.

\( H_06: \) The variance in the frequency of dysfunctional audit behavior related to firms' ethical cultures will not be moderated by ethical reasoning positions of the in-charge auditors.

\( H_07: \) The variance in the frequency of dysfunctional audit behavior related to firms' ethical cultures will not be moderated by selected in-charge auditor characteristics (e.g., sex, age, ethical training experiences).

These null hypotheses were tested by quantitative analysis of response items on a survey distributed to in-charge auditors. The design of the survey and methodology used to analyze the data are presented in Chapter Three and the findings from the analysis are presented in Chapter Four and discussed in further detail in Chapter Five. In order to fully understand the nature of this study, however, it is important to have knowledge of each of the theories and concepts that informed the models and hypotheses being tested. A review of academic and practitioner literature provided this knowledge and is summarized in Chapter Two.
Figure 1. Model of relationships between the frequency of dysfunctional auditor behaviors and authentic leadership, ethical culture, in-charge auditors' ethical reasoning position, and demographic data.
Figure 2. Integrated model of authentic leadership, ethical culture, and frequency of dysfunctional auditor behavior as modified by in-charge auditors' ethical reasoning position and demographic data.
CHAPTER TWO
A REVIEW OF THE LITERATURE

In order to adequately understand and address all of the issues surrounding the study conducted for this dissertation, four bodies of academic literature were reviewed. Specifically the bodies of literature that were reviewed included: (1) leadership theory, specifically theories of transformational leadership, ethical leadership, and the emerging concept of authentic leadership; (2) organizational culture, and more specifically, organizational ethical culture and "tone at the top," and even more narrowly, the ethical culture within public accounting firms; (3) ethical reasoning, and in particular, ethical reasoning by accountants; and (4) dysfunctional audit behavior, specifically those studies that focus on under-reporting of time (URT) and audit quality reduction acts such as premature sign-off of audit procedures (PMSO). The literature for each of these domains includes conceptual work and empirical studies, and both are reviewed here, beginning with the relevant literature relating to leadership theory.

Leadership Theory

Ideas about leadership and leader behavior are not new. As long ago as 500 B.C., the founder of Taoism, Chinese philosopher Lao Tzu, suggested that a leader is at his or her best when people barely know he exists; the [leader] doesn't talk, rather he or she acts, and when his or her work is done, followers believe they did the work themselves (Mitchell, 1988, p. 17). Named theories of leadership have been proposed for more than a century, yet many prominent scholars (e.g., Burns, 1978; Rost, 1993) argue that the history of leadership studies has been seriously flawed as we have yet to find a satisfactory definition for leadership. They suggest that leadership, like art, appears to
only be known when it is seen. Regardless, the field has produced a significant body of literature surrounding many different theoretical frameworks for leadership. The early theories focused on the traits of a leader and the theorists then moved to examine the leader's behaviors.

In the last quarter of the twentieth century, there was a significant focus on what might be called inspirational styles of leadership; this list includes servant leadership (Greenleaf, 1977), charismatic leadership (Gardner & Avolio, 1998; Shamir, 1995), and transformational leadership (Bass & Avolio, 1990a; Burns, 1978). The theory used in this study, Authentic Leadership, has developed as researchers have attempted to construct a distinct theoretical framework for thinking about and studying leadership. The framework's theory is based on the well-known and much reviewed theory of Transformational Leadership, and from more recent work surrounding Ethical Leadership Theory.

Because the literature on leadership theory is voluminous, this review will not attempt to examine all of leadership theory. Rather, it will focus on the writings about leadership that are especially relevant to the study—i.e., Authentic Leadership Theory and those related theories that appear to be at least partially responsible for its genesis.

One final note before proceeding: much of the literature focused on leadership theory is conceptual in nature. The following discussion of ethical, transformational, and authentic leadership theories will discuss many of these conceptual works. However, there is a small, but growing, body of empirical work within each theory that will be reviewed as well.
Ethical Leadership Theory

Brown and Trevino (2006) note that "given prominent ethical scandals in virtually every type of organization, the importance of an ethical dimension of leadership seems obvious (p. 596). Brown, Trevino, and Harrison (2005) defined ethical leadership as "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making" (p. 120). Attributes such as honesty, fairness, integrity, openness, and idealized influence are essential to the ethical leader and, according to Trevino (2000), reflect the moral person.

According to Brown and Trevino (2006), survey research (Den Hartog, et al. 1999; Kouzes & Posner, 1993; Posner & Schmidt, 1992) has shown perceived leadership effectiveness to be related to followers' perceptions of a leader's honesty, integrity, and trustworthiness, while other research (McAllister, 1995) has shown it to be associated with care in work, dependability, and professionalism. Trevino, Hartman, and Brown (2000) and Trevino, Brown, and Hartman (2003) built on these earlier works by conducting qualitative, structured-interviews seeking "to understand what the term ethical leadership means to proximate observers of executives" (Brown and Trevino, 2006, p. 596). Interviewing senior executives and ethics/compliance officers from varied industries about ethical leaders, they determined that a number of personal characteristics (e.g., honesty, trustworthiness) are associated with ethical leadership. They labeled this the moral person aspect of ethical leadership.

More relevant to this dissertation, however, was the moral manager dimension of ethical leadership revealed in earlier studies (e.g., Brown and Trevino, 2006, Trevino,
They defined this aspect of ethical leadership as “the leader's proactive efforts to influence followers' ethical and unethical behavior” (Brown & Trevino, 2006, p. 597). According to Brown and Trevino, moral managers “make ethics an explicit part of their leadership agenda by communicating an ethics and values message, by visibly and intentionally role modeling ethical behavior, and by using the reward system (rewards and discipline) to hold followers accountable for ethical conduct” (p. 597).

Brown, Trevino, and Harrison (2005) used these earlier works to attempt the formal development of an ethical leadership construct and to find a means of operationalizing it through an Ethical Leadership Scale (ELS). Brown, et al. note that their study was the first attempt at developing an ethical leadership scale and they were therefore unable to compare their instrument to others to obtain a measure of convergent validity. However, they did provide measures of internal consistency and compared ethical leadership with other constructs to obtain evidence of trait and nomological validity.

After developing their first-version ELS, Brown, et al. (2005) administered the Likert-based instrument to 154 Master of Business Administration students. They conducted an exploratory factor analysis and reduced the scale from 48 to 21 items. Next, they consulted with a construct validation expert familiar with their definition of ethical leadership and further refined the ELS to a ten item scale. They then followed up with a confirmatory factor analysis using two samples from a financial services firm and conducting five additional studies to further test the instrument.

Brown, et al. (2005) found, as they had predicted, that, “ethical leadership is positively related to consideration behavior, interactional fairness, leader honesty, and the
idealized influence dimension of transformational leadership (Bass & Avolio, 2000).” (p. 130). They further contend that their analysis indicates ethical leadership is distinct from these other “partially overlapping, leadership constructs” (p. 130).

Brown and Trevino (2006) suggest that ethical leaders focus on moral transactional management. Ethical leaders use a proactive approach to manage ethical and unethical behaviors in organizations by “visibly and intentionally role modeling ethical behavior, and by using the reward system (rewards and discipline) to hold followers accountable for ethical conduct” (p. 597). Trust in the leader by subordinates is necessary for effective ethical leadership, and subordinates’ perceptions of ethical leadership include “satisfaction with the leader, perceived leader effectiveness, willingness to exert extra effort on the job, and willingness to report problems to management” (p. 597). Brown and Trevino suggest that these characteristics go beyond the idealized influence construct of transformational leadership, discussed next, even though this construct is the closest concept between transformational and ethical leadership theories.

Transformational Leadership Theory

When Burns (1978) produced his seminal work, Leadership, he introduced the concept of the transforming leader—one who “looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower” (p. 4). Burns adds that the result of this type of leadership is “a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents” (p. 4). This theory is particularly relevant in the auditing profession where audit professionals at all levels within the organization—both leaders and followers—must
work together and are dependent upon one another to produce a quality audit product, a correct audit opinion. Burns suggests that transforming leadership occurs when “one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality” (p. 20). Given the audit failures that have occurred and that some fear will continue to occur, auditors must engage one another and hold each other accountable for the quality of their work and therefore, this theory is especially applicable to the audit profession.

To contrast with transforming leadership, Burns (1978) also introduces the concept of the transactional leader who “takes the initiative in making contact with others for the purpose of an exchange of valued things” (p. 19). He further suggests that the relationship between the transactional leader and his/her follower has “no enduring purpose that holds them together... A leadership act took place, but it was not one that binds leader and follower together in a mutual and continuing pursuit of a higher purpose” (p. 20). It is important that all members of an audit engagement team recognize that their purpose is to protect the users of the client’s financial statements – to ensure that the firm issues a correct audit opinion. As such, the transactional leadership approach—at least as Burns defines it—is likely not the best approach for the auditing profession.

Bass and Avolio (1994) popularized Burn’s theory and made it operational by developing the Multifactor Leadership Questionnaire (MLQ) to determine the degree to which a leader displays transformational and transactional leader styles, and the degree to which followers were satisfied with the leader and the leader’s effectiveness. The MLQ was based on earlier work by Avolio and Bass (1988). They conducted a series of studies
within both military and industrial settings where, based on interviews with subordinates, they identified four factors of transformational leadership: charisma or idealized influence; inspirational motivation; intellectual stimulation; and individualized consideration.

Idealized influence is the degree to which the leader acts in an admirable manner that will cause the follower to identify with the leader. Inspirational motivation is the ability of the leader to articulate a compelling vision that inspires the follower to find meaning in the tasks they perform. Intellectual stimulation represents the degree to which the leader both challenges common assumptions and exhibits behaviors which increase the follower’s understanding of the issues at hand. Individualized consideration is the degree to which the leader treats followers as individuals, mentors the follower and is concerned with the needs of the follower.

Bass (1985, 1990) and Bass & Steidlmeier (1999) focus on the components of transformational leadership that underscore the ethical and moral character of leaders. Avolio (1999) argued that the idealized influence dimension is clearly an ethical construct. The distinguishing characteristics of a transforming leader make him or her capable and willing to provide an atmosphere that fosters ethical or moral behavior in followers. Because of the influence these leaders have on their followers, critics have suggested that transformational and other inspirational leadership styles are themselves unethical, taking advantage of followers into foregoing their own interests (Price, 2003). As such, researchers in transformational leadership began to discuss the differences in authentic and inauthentic leaders (e.g., Bass, 1990; Bass & Steidlmeir, 1999).
Authentic Leadership Theory

A remarkable body of literature (see an exhaustive listing in Yammarino, Dionne, Schriesheim, & Dansereau, 2008) has been produced since 2001 in the area of Authentic Leadership Theory (ALT). While most of the literature is conceptually based, there have been significant empirical studies about this emergent view of leadership. I will begin the discussion of ALT with an overview of the theory, reviewing selected literature surrounding its theoretical conception, and conclude with a discussion of the empirical studies that have been carried out to date. Authentic leadership is the construct of leadership that was explored for this dissertation. It provided the theoretical base for the Authentic Leadership Questionnaire (ALQ), the instrument used in the study for measuring the in-charge auditors' perceptions of their firm's designated leaders.

History and Definition of ALT

As discussed earlier in this chapter, Avolio worked closely with Bass (e.g., Avolio and Bass, 1988; Bass and Avolio, 1990a, 1990b, 1992, 1994) in researching and operationalizing the concept of transformational leadership. Recently, he has been researching ALT with a number of colleagues to further understand the concept and to understand authentic leadership development (e.g., Avolio & Gardner, 2005).

Gardner, Avolio, Luthans, May, and Walumbwa (2005) indicate that the recent ethical problems in business are indicative of the willingness of people to misplace their trust in untrustworthy leaders. They also theorized and empirically researched the idea, though, that there are also "lower profile but genuine leaders who lead by example in fostering healthy ethical climates characterized by transparency, trust, integrity, and high moral standards" (p. 344) and that these authentic leaders are both true to themselves and
lead others to also achieve authenticity. Gardner, et al. hypothesize that through the development of such authentic leaders and authentic followers, positive ethical climates can be created.

Walumbwa, Avolio, Gardner, and Wernsing (2008) provide a definition of authentic leadership which more fully reflects the underlying dimensions of the construct:

Specifically, we define authentic leadership as a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development. (p. 94)

These four constructs (self-awareness; internalized moral perspective; balanced processing of information; and relational transparency) provide the framework for ALT and are further explored in the discussion of the ALQ later in this chapter and in Chapter Three.

Obviously, ALT has its basis in the authenticity of the leader. The four constructs of the theory were based in Kernis’ (2003) model of authenticity. Kernis defines authenticity as “unobstructed operation of one’s true, or core, self in one’s daily enterprise” (p. 13). Avolio, Gardner, Walumbwa, Luthans, and May (2004) assert that authentic leaders know who they are, know what they believe and value, and act upon this knowledge while maintaining a transparency with others. Yukl (2002) notes that leadership is a process of social interaction—the interaction between leader and follower—and the study conducted for this dissertation is based upon the followers’ (in this case, the in-charge auditors’) perceptions of their leaders. The extent to which these leaders are transparent and the followers believe that they can see the real leader will, according to ALT, impact the relationship between the two.
Chan, Hannah, and Gardner (2005) suggest that authenticity is best understood by what it is not and that it is not sincerity (congruence in relationship with others), impression management (manipulating the external portrayal of self), or self-monitoring (a theory related to how people determine how to best respond to situations). Authenticity, as many writing on the subject have stated, is associated with the early Greek maxim of “to thy own self be true” (e.g., Harter, 2002), and Chan, et al. suggest it is a “state of being that is self-contained and does not require the presence of another for its reality to become manifest” (p. 6). As such, while authenticity does not require the other to exist, Chan, et al. note that when we apply the concept to the process of leadership, ALT is developed and that the intrapersonal state of authenticity will have a positive effect on the leader-follower relationship.

Considering the relational aspects of ALT, Chan, et al. (2005) assert that “authenticity develops in parallel to morality” (p. 10) and that it is not possible to be “authentically immoral or antisocial” (p. 10). Cooper, Scandura, and Schriesheim (2005) note that the developers of ALT appear to have a normative goal in mind; they want to “train and develop leaders who will proactively foster positive environments and conduct business in an ethical, socially responsible manner” (p. 477). If this construct of the theory is accurate, it is precisely the model against which we should be measuring auditing firm leadership. Years before ALT had a name, researchers were supporting the idea behind it. Otley & Pierce (1995) concluded, as discussed in a later section of this review, that audit firms can influence the behavior of its staff through “recruitment, promotion and training of managers and partners [who exhibit] considerate and supporting leader behavior” (p. 417).
Antecedents to ALT

Before beginning work on the ALQ, Avolio et al. (2004) noted that authentic leadership theory has, at its core, the concept of remaining true to one’s self. Gardner, et al. (2005) suggest that the antecedents to authentic leadership include

- the leader’s personal history, particularly a positive role model; a trigger event – something in life that served to stimulate positive growth and development;
- the leader’s self-awareness of both his/her strengths and weaknesses – evidenced by high levels of self-clarity and self-certainty;
- the leader’s values – that s/he is true to self and to his/her core values in particular; the leader’s identity or self-concept – viewing him/herself as a “leader per se as well as a positive role model who can be trusted to respect, honor and develop his or her followers” (p. 351);
- the leader’s emotions – the leader is in touch with his or her emotions and is aware of their effect on self and on others, and on decision-making processes;
- the leader’s goals and motives which are primarily self-verifying and self-improving; the leader’s self-regulation (“integrated regulation is the highest and most autonomous form of external regulation; it arises from the full integration of identified values and regulations into the actor’s sense of self” p. 355);
- the leader’s balance processing ability or his/her ability to “more objectively evaluate and accept both positive and negative aspects, attributes and qualities of themselves, including skill deficiencies, suboptimal performance, and negative emotions” (p. 356);
• the leader's authentic behavior, "because followers' perceptions of, and trust in, the leader are based largely on the leader's actions, these actions must be aligned with espoused values to convince followers of the leader's integrity" (p. 357).
• the leader's relational transparency with others, that is, letting others see the true person of the leader.
• the leader's positive modeling or to "impart positive values, emotions, motives, goals and behaviors for followers to emulate" (pp. 358 – 359).

The authentic leader cannot exist without followers and Gardner, et al. develop a similar framework for "authentic followership" (p. 359) and describe the antecedents to being an authentic follower. They further contend that leadership and followership occur within a context, and for purposes of this study, that context will be the CPA firms' organizational cultures, specifically their ethical cultures.

Comparison of Authentic and Ethical Leadership Theories

Brown and Trevino (2006) provide similarities with and differences between ethical leadership and authentic leadership. Similarities include both types of leaders: having concern for others, making ethical decisions, having integrity, and role modeling for followers. Differences between ethical and authentic leaders noted include (1) "ethical leaders emphasize moral management (more transactional) and 'other' awareness" (p. 598) and (2) emphasis by authentic leaders on authenticity and self-awareness.

Brown and Trevino (2006) note that ethical leadership theory does not consider "being true to oneself" a central element of ethical leadership and suggest that the leaders' care and concern for others is paramount to the philosophy. However, in
comparing ethical and authentic leadership styles, they suggest that authentic leaders will model positive behaviors—hope, optimism, and resilience—and are motivated more out of concern for others rather than concern for self. Brown and Trevino further suggest that “both authentic and ethical leaders share a social motivation and a consideration leadership style. Both are ethically principled leaders who consider the ethical consequences of their decisions” (p. 599).

Empirical Studies in Authentic Leadership Theory

As noted earlier, while a large number of conceptual papers have been written about ALT, it has not been extensively researched empirically. However, there is a small, but significant, body of literature that has attempted to develop an empirical understanding of the theory.

In addition to the work by Walumbwa, et al. (2008) in developing the ALQ, discussed next, researchers are attempting to measure ALT through a variety of means. Endrissat, Muller, and Kaudela-Baum (2007) conducted a qualitative leadership study in Switzerland and found authenticity and integrity to be such important constructs that they focused the study on an understanding of what authentic leadership means. They compared practitioner impressions with ALT and theories surrounding behavioral integrity. Using narrative interviews and a “bottoms-up” data analysis, they determined that it is commonly believed that “authenticity is a necessity in order to be perceived as a leader” (p. 212). In contrast to Walumbwa, et al. (2008), Endrissat, et al. caution against viewing authentic leadership as synonymous with ethical, transformational or any other conception of leadership. They note that their research indicates that authentic leadership
has its own distinct construct and should be understood uniquely and separately from all other conceptions.

Dasborough and Ashkanasy (2005) conducted two studies, one qualitative and the other quantitative, attempting to “understand better the processes of follower cognitive and emotional reactions to authentic and inauthentic leadership influence” (p. 286). The first study, conducted in 2003, was a qualitative study. This study indicated that inauthentic behavior—or lack of authentic behavior—engendered a negative emotional response from followers. Focus groups at three different organizations were conducted with 12 female and 12 male participants holding a variety of positions within the organizations (e.g., secretary, marketing coordinator).

In their qualitative study, Dasborough and Ashkanasy (2005), “asked the participants to describe in as much detail as possible an ‘emotional interaction’ [either positive or negative] they have had with their leader at work” (p. 287). They used content analysis to identify patterns in the responses and found that participants felt disappointed by or had other negative emotional responses to leader behaviors such as inadequate instruction, lack of trust, failing to “do as they said” (p. 287), and/or having a focus only on the financial picture. Dasborough and Ashkanasy assert that these behaviors are consistent with behaviors expected from an inauthentic leader. They based their assertion upon findings and theories surrounding authentic leadership behavior from earlier research (e.g., Dasborough & Ashkanasy, 2002; May, Chan, Hodges, & Avolio, 2003; Gardner & Schermerhorn, 2004).

Dasborough and Ashkanasy’s (2005) second study used a laboratory investigation with two groups receiving separate emails after watching the same video of a supposed
leader behaving in a charismatic, transformational manner. The emails asked the participants to invest an extra effort in their work. Dasborough and Ashkanasy used structural equation modeling to analyze their data which included, among others, measures of items such as attributions of intent, labeling of the leader as transformational, positive emotions, negative emotions, and trust. The email that sent a mixed message (using “I” rather than “we” after consistently using “we” in the video) was perceived by its recipients to have come from an inauthentic leader. They found that these participants indicated less likelihood of complying with requests from the leader than the other group whose email contained a consistent, congruent message. The latter group, the participants attributed sincere intentions to the leader, reported higher trust levels, labeled the leaders as transformational, and were more willing to comply with the leader’s request.

In a study of leadership development focused at the individual level, Eigel and Kuhnert (2005) equated higher levels of leader development with authentic leadership and found these leaders to be “more intentional in the development of their direct reports — they raise others’ aspirations of who they are” (p. 381). This study was interview-based with a sample of 21 top executives and built upon earlier developmental psychology research by Piaget (1970) and Kegan (1982). As Eigel and Kuhnert explain, “the object of the interview was to probe and understand, using hypothesis testing, the participant’s experience in a way that identified how or why the participant constructed meaning about a particular experience” (p. 372). They found that leaders at the highest developmental level were both open to and able to synthesize contradictory opinions and had a strong
values orientation – each a separate and distinct element of authentic leadership as it is
defined for this study.

Pittinsky and Tyson (2005) studied the markers of leader authenticity in a study of
African Americans of the Hip-Hop Generation. Other than these two demographic
characteristics, the researchers attempted to have socio-economic and geographic
diversity in a sample group recruited through snowball sampling. Themes that emerged
related to authenticity suggested that, among this population, inauthentic behaviors are
more easily detected than authentic ones and that “leaders can signal too much
authenticity” (p. 271). This study had an undefined level of analysis, but does not appear
to have employed multi-level theory or technique (Yammarino, et al., 2008).

Several researchers who have studied authentic leadership empirically have
concluded that there is ambiguity regarding the levels at which authentic leadership
operates (Cooper, et al., 2005; Yammarino, et al., 2008). Levels of analysis in the
conceptual and empirical ALT literature have varied between individual and multi-level,
with some work being undeterminable or using mixed determinants (Yammarino, et al.,
2008). Because of this lack of consistency, calls for clearer, specified levels have been

Measuring Authentic Leadership

In order to assess authentic leadership, Walumbwa, et al. (2008) proposed a
theory-based questionnaire, the Authentic Leadership Questionnaire (ALQ), and
attempted to provide evidence of its construct validity. Further, they wanted to
“demonstrate the utility of a four-factor authentic leadership construct by showing its
ability to uniquely predict relevant organizational outcomes” (p. 91); and “to empirically
examine the extent to which authentic leadership contributes to individual follower job satisfaction and performance” (p. 91). They note that they achieved these three objectives by conducting an empirical study using data collected from Kenya, The People’s Republic of China, and the United States. The reason offered for including Kenyan and Chinese samples was to answer the call from leadership scholars (e.g., Bass, 1999) to provide research in more culturally diverse settings. They believed that including these samples will “enhance the generalizability and utility of the resultant ALQ measure” (p. 91).

Walumbwa et al. (2008) write in depth about the construction of the ALQ, indicating that they used deductive and inductive approaches for item generation, developing content on extensive review of literature surrounding ALT and generative discussions with a leadership research group. Next, they asked doctoral students with years of full-time work experience as well as experience conducting research on leadership to “describe a person they regarded as an authentic leader (e.g., what made him or her an authentic leader?)” (p. 96) and content analyzed the responses. Based upon the correlation between the items developed in each of these two approaches, they were able to reduce the final domains of the theory to four: self-awareness; relational transparency; internalized moral perspective; and balanced processing.

Using confirmatory factor analysis on two of their samples (the United States and the People’s Republic of China), Walumbwa et al. (2008) found that their four factors “are not independent and that a single second-order factor accounts for this dependence” (p. 101). They identify this higher order construct to be authentic leadership. Finding no significant differences between the two diverse samples, Walumbwa et al. note that “our
confidence in the plausibility of the higher order factor model of authentic leadership is strengthened" (p. 101). The estimated internal consistency alphas (Cronbach's alpha) for each of the four factors in both samples were at acceptable levels. In the U.S. sample, the alphas were: self-awareness, .92; relational transparency, .87; internalized moral perspective, .76; and balanced processing, .81" (p. 98) and for the Chinese sample, these alphas ranged from .72 to .79 on the four factors.

Walumbwa, et al. (2008) point out that the "results [of the CFA] do not address the possible distinctiveness among the measures" (p. 101) which could indicate that, even though the scales indicate a higher order factor and high convergence among the four factors, there could still be "distinct relationships with other theoretically relevant variables" (p. 101). To provide further evidence of construct validity and nomological validity of the newly developed measure for the theory, Walumbwa, et al. provided overviews of and compared ALT to both ELT and TLT.

**Leadership and Ethical Culture**

Significant research has been conducted in examining the relationship between leadership and ethics in the social sciences literature (e.g., Bass, 1985; Ciulla 1998; Weaver, et al., 1999), however, fewer studies examine this linkage within public accounting firms (e.g., Jiambalvo & Pratt, 1982; Kida, 1984; Kelley & Margheim, 1990; Otley & Pierce, 1995; Pratt & Jiambalvo, 1981, 1982). There is a paucity of empirical research examining the link between the leader's ethics and the culture of their organization (Schminke, Ambrose & Neubaum, 2005; Shacklock & Lewis, 2007) Shacklock and Lewis note that the research that does exist seems to suggest that ethical
culture is affected by and affects the behavior of leaders within organizations to the extent this construct can be measured.

Gardner, et al. (2005) believe that authentic leaders are developed within organizational climates that open, supportive, empowering and enabling and that these leaders then sustain and potentially alter the organizational culture or climate to make it more authentic:

In particular, this theory suggests that for self and followers to be effective, leaders must create and sustain an organizational climate that enables themselves and followers to continually learn and grow. Transparency in the culture is a core facilitating condition for such learning and growth (p. 367)

Walumbwa, et al. (2008) suggest that authentic leadership, in light of the recent cases of unethical behaviors on the part of many corporate leaders, may help to identify those who “may not always adhere to the highest ethical and moral principles in terms of their decisions, actions, and behaviors” (p. 121). This data could be useful in creating leader development programs or monitoring to “avoid ethical meltdowns” (p. 121) in organizations. Walumbwa, et al., however, do not suggest how we go about creating these programs.

As Weaver, et al. (1999) imply, while it is important to understand the impact of an organization’s leadership implementing an ethics initiative on behaviors, there is a question of how we integrate this initiative into the everyday routine of the organizational functions and how we integrate the ethics initiatives into the corporate cultures. In light of its importance to authentic leadership—and to the model being researched—the next section will examine the relevant literature surrounding organizational ethical culture.
Conclusion to Leadership Literature Review

While there are numerous leadership theories and applications of those theories, more recently scholars have been looking for models of leadership that will engender an ethical sense of conduct in their followers. This section has looked at three of these models, Ethical Leadership Theory, Transformational Leadership Theory, and Authentic Leadership Theory. Each of these is based either in whole or in part on the idea that leaders are responsible for setting a moral tone within their organization. Finally, it was noted that there is little research that examines the relationship between a leader’s ethics and their organization’s ethical culture. Understanding this relationship was a significant aim of this study—understanding how the perception of CPA firm leaders’ authenticity, specifically the moral and ethical aspect of authenticity, impacts the ethical culture and, as a potential result, the behavior of auditors. As previously noted, given the importance of organizational ethical culture to this study, the next section of this review will examine the literature that surrounds this concept.

Organizational Ethical Culture

Hood and Koberg (1991) state that culture “establishes recognized and accepted premises for decision making” (p.12). Noted business consultant Mark Clemente (2003) has said, “Corporate culture is one of those amorphous business concepts that leaders too often neglect because of its sheer intangibility. Yet culture—effective culture—is arguably the most valuable intangible asset a company can own” (para.1). This dissertation looked at the impact that in-charge auditors’ perceptions of their firm’s culture, specifically the ethical elements within the culture, has on the behavior of auditors. In order to understand the relevance of this aspect of the study, it is necessary to
understand how an organization’s corporate culture influences the members of that organization.

**Laying a Foundation for Understanding Organizational Culture: Schein**

Schein (1992, 1996, 2004), a prominent researcher and theorist in organizational culture, provides a formal definition of culture:

A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way you perceive, think, and feel in relation to those problems. (2004, p. 17)

Schein (2004) suggests that issues that challenge culture formation and survival include both adaptation to changing external environments and “integration of its internal processes to ensure the capacity to continue to survive and adapt” (p. 87). He further asserts that the leader is responsible for external boundary management which is essential to survival. To implement this management, the organization must have a mission, a strategy and a means of implementing the goals derived from that strategy. The leader, according to Schein, must have some measurement standard in order to be able to assess how well the organization is doing in achieving the goals, and finally, must have some way of correcting or repairing strategies if goals are not being met.

Leaders are also responsible for managing the group’s internal issues such as communication; category systems; membership selection; distribution of power and status; rewards and punishments; group norms of intimacy, friendship and love; and explaining the unexplainable. Internal issue and external boundary management are not mutually exclusive and operate in tandem. The leader must be able to manage both successfully if the group is to survive and prosper. As noted, Schein (2004) purports that
the leader’s role is to both create and embed culture within an organization. The strong leader will be able to manage issues and boundaries, and the change to both that will inevitably occur. That leader will understand that change brings tension and anxiety and that facilitating change will also mean helping the group members manage these emotions.

Much of Schein’s (2004) work talks about responding to and managing change. Schein notes that the “purpose of deciphering or assessing culture” can be to help “an organization come to terms with its own culture because the leaders of the organization are engaged in some change project” (p. 203). Corporate America, and more specifically, the auditing profession, is currently recovering from crisis and trying to find its way in a once again newly regulated world. Recent press articles have decried it as a profession without strong, ethical leadership. It is a profession operating in a culture of change, some self-directed but much imposed from external regulatory sources.

Schein (2004) indicates that “unfreezing” or creating a motivation to change does not take place until three processes occur: there is serious discomfort and disequilibrium, the data causing the discomfort is connected to important goals and ideals and thereby causes anxiety and/or guilt, and there is the sense of being able to see a solution to the problem and learn “without loss of identity or integrity” (p. 320). Obviously, the corporate and audit failures of the past decade and accompanying widely-publicized scandals have created disequilibrium for the auditing profession. There has been a sense of shame and guilt for the failures and a resultant loss of investor confidence in the professions and the capital markets they serve, ergo a loss of a sense of integrity within
the profession. It is, however, possible to see solutions (the new Public Company Accounting Oversight Board, for one) that can limit or eradicate these losses.

*Setting the Tone...at the Top*

In agreement with Schein, Heifetz (1994) says that leadership of groups facing adaptive challenges, when addressing conflicts in held values and reality, requires a learning strategy. “A leader has to engage people in facing the challenge, adjust their values, changing perspectives, and developing new habits of behavior” (p. 276). Heifetz notes that in order to be successful in doing this, the leader must learn how to deal with the discomfort and anxiety that results from confronting the uncomfortable issues. Schein (2004) states that in order for culture change to be successful, the large levels of anxiety that accompany any relearning must be managed and the possibility of relearning must be assessed. Leadership must have the “ability to step outside the culture that created the leader and to start the evolutionary change processes that are more adaptive” (Schein, p. 2).

*Culture or Climate?*

Similar to Schein’s (1992, 2004) definition of organizational culture, Post, Lawrence and Weber (2002) define it as the “blend of ideas, customs, traditional practice, company values and shared meanings that help define normal behavior” (p. 132) for firm employees. Post, et al., however, differentiate culture from ethical climate by suggesting that employees experience ethical climate as “a moral atmosphere [that] can be detected. People can feel the way the ethical winds are blowing. They pick up subtle hints and clues that tell them what behavior is approved and what is forbidden” (p. 133). Trevino, Weaver and Reynolds (2006) differentiate the two constructs as follows:
Ethical climate, as introduced by Victor and Cullen (1988) and adapted by others (Schminke, Ambrose & Neubaum, 2005) is defined as a shared perception among organization members regarding the criteria (e.g., egoism, benevolence, and principle) and focus (e.g., individual, group, society) of ethical reasoning within an organization. By contrast, ethical culture has been defined as a slice of the organizational culture that influences employees' ethical behavior through formal and informal organizational structures and systems (Treviño, 1990). (p. 966)

Much of the literature fails to adequately distinguish between these two concepts and it is beyond the scope of this dissertation to fully discuss the difference in culture and climate (for further background on the distinction between culture and climate, see Denison, 1996). The premise of this study is employee perceptions and the potential relationship between these perceptions and behavior, therefore knowledge of the literature of both culture and climate is relevant.

Organizational Ethical Climate

In an empirical study of the antecedents of organizational ethical climate at four firms, Victor and Cullen (1988) identified nine ethical climate types based on Kohlberg's (1958) theory of moral justice. Using principal component factor analysis, they found five factors—or emergent climate types—and developed five scales with satisfactory reliabilities. Victor and Cullen's findings suggest that "the types of ethical climates existing in an organization or group influence what ethical conflicts are considered, the process by which such conflicts are resolved, and the characteristics of their resolution" (p. 105). Building on this earlier work, Cullen, Victor and Bronson (1993) define an ethical climate as "the work climates regarding organizational practices with moral consequences" (Cullen, et al., p. 129).

Cullen, Victor and Bronson (1993), in a study aimed at assessing the development and validity of the ethical climate scale developed by Victor and Cullen (1988), note that
ethical climates should be expected to vary along the dimensions of both ethical criteria (egoism, benevolence, principle) and loci of analysis (individual, local, cosmopolitan), allowing for nine theoretically possible ethical climates. Cullen, et al. suggest that since the same outcome can result from different forms of ethical reasoning and it is, therefore, important to understand the underlying ethical reasoning for organizational decision-making. As such, this dissertation study attempts to not only look at the in-charge auditors’ perceptions of their firm’s ethical culture, but also attempts to capture a measure of their own ethical reasoning, as discussed in the next section of this review.

Cullen, et al. (1993) assert that “ethical climates in organizations, as functions of aggregated individual perceptions of ethical norms, divide along dimensions similar to Kohlberg’s ethical standards” (pp. 667-668). Cullen, et al. suggest that Kohlberg and other researchers (e.g. Gilligan, 1982; Haan, Aerts, & Cooper, 1985) have found individuals’ ethical standards to be “distinct and relatively incompatible” (p. 668) and believe that the same distinctness should hold true for organizations as well.

Weber (1995) suggests that employees will behave differently depending upon their perception of the circumstances – if they are under scrutiny by regulators, for instance, they will exhibit ethical behavior, whereas if they are not under this kind of scrutiny, they will act more out of self-interest or company-interest. Obviously, the auditing profession is operating in a different environment than it was before SOX and the creation of the PCAOB. Auditors of publicly traded companies face more scrutiny of their work than ever before, including governmental oversight and mandated peer-reviews. However, the auditing firms’ leadership teams provide the scrutiny most
relevant to their subordinates – the auditing staff and seniors – and therefore, according to Weber, are the ones capable of making a difference in the behavior of these subordinates.

*Organizational Ethical Culture*

The instrument used in this study to evaluate ethical culture of auditing firms, the Corporate Ethical Values Scale (CEV), discussed more fully in the Methodology section, was developed by Hunt, Wood, and Chonko (1989). Hunt et al. (1989) define corporate ethical values as "a composite of the individual ethical values of managers and both the formal and informal policies on ethics of the organization" (p. 79). According to Hunt, et al. (1989), their "measure of corporate ethical values attempts to capture the broader principles of the degree to which organizations take an interest in ethical issues and act in an ethical manner, rather than product, service, or industry-specific issues" (p. 82). They chose to capture these broader principles because of the "changing nature of what constitutes ethical issues in organizations" (p. 82). Alluding to the discussion of climate vs. culture noted in the previous section, this seems to imply that while the ethical climate (the shifting perceptions) of the organization may change, the broad principles that underlie the ethical values are more relevant to studies of ethical behaviors.

Hunt, Wood, and Chonko (1989) developed their CEV scale on the basis of earlier work by Hunt and Vitell (1986, 1993) and two of the researchers used the items from the scale in study of ethical problems in public accounting (see Finn, Chonko and Hunt, 1988). Finn et al. conducted their research during another turbulent period for accountants and in fact note the profession had been under scrutiny by Congress for activities that might "undermine the integrity of financial statements" (p. 605).
The Finn et al. (1988) study was based on 332 respondents (a 26.6 percent response rate) to a questionnaire sent to practicing accountants. They noted that there was no prior scale for measuring the extent of partner actions on ethical problems perceived by the CPAs. As a result, they developed one that included all five of the items that later were included in the CEV. Three of the items (see items 3, 4, and 5 in Appendix C) described partner behavior that “other writers have suggested should be undertaken to deter unethical behavior” (p. 612). Factor analysis on these three items yielded a one factor solution with an alpha coefficient of 0.76, indicating that the three items can be considered a single scale for measuring the “latent construct ‘partner actions’” (p. 612).

Culture and Leadership in the Accounting Profession

Schein (1992, 1996, 2004) asserts that leaders shape the culture of their organizations. May, et al. (2003) suggest that, in order to be an ethical leader, one must have the personal moral courage to transform his or her moral intentions into behaviors despite pressures to do otherwise. The Public Oversight Board (POB, 2000), in a report on audit effectiveness, identified firm leaders as a “major influence on culture” and suggest that “tone at the top” of audit firms determines “whether the culture is quality-oriented or sales-oriented, and whether top management extols the important role audits play in the capital markets or acts as if audits are little more than minimum value commodities” (p. 100). Jenkins, et al. (2008) remind us that the passage of SOX and the demise of Andersen provide opportunity for us to reflect on the “consequences of fostering a culture that values revenue generation over quality service” (p. 46).
Ponemon (1992a), using a triangulated research design of cross-sectional, longitudinal and experimental methods, found that leaders of accounting firms set the tone of their organizations by, as earlier research (e.g., Ponemon, 1988) had shown, promoting those whose personal attributes more closely reflected the leaders’ perceptions and moral reasoning development. Ponemon’s findings propose that there is a correlation between the organizational culture created by the leaders of the accounting firms and the subordinates’ personal characteristics and decision-making styles.

Windsor and Ashkanasy (1996) found similar results in their study with 131 Big N audit partners in Australia. Using factor analysis, descriptive statistics, MANOVA, and multiple-regression analysis, their findings suggest that “organizational culture and personal factors are seen to be intrinsic to auditors’ decision-making styles and independence behavior” (p. 81). Windsor and Ashkanasy further found that moral reasoning development to be related to aggression value in audit firm organizational culture. This finding is supported by Cohen, Pant, and Sharp (1994) who found aggressiveness to be an important factor in auditor-client relationships.

Douglas, Davidson and Schwartz (2001) examined the relationship between organizational ethical culture, auditors’ personal values and the ethical orientation their values dictate, and judgments in ethical dilemmas typical of those accountants face. Using ANCOVA and path analysis to interpret results from 304 practicing accountants at various levels (staff, senior, and manager) within two large public accounting firms, they found that “ethical judgments in situations of high moral intensity are affected by personal values and by environmental variables, such as the professional code of conduct (direct and indirect effects) and previous ethics instruction (direct effect only)” (p. 101).
They further found that corporate ethical culture, as represented by perceptions of the firms' shared values and practices, indirectly affects ethical judgments.

Satava, Caldwell and Richards (2006) believe that "the accounting profession must demonstrate a willingness to evaluate itself seriously and become principle-based and committed to changing its culture – firm by firm – if the profession is to restore its credibility with the public" (p. 279). The POB (2000) said that firm leaders need to deliver a "positive, constructive message" and that they should "emphasize to all audit personnel the importance of performing high-quality professional work" (p. 100). They continued by asserting that the messages from leaders be "refreshed frequently so it commands attention, rather than becoming a tired slogan that is ignored" (p. 100). The leaders should place emphasis on roles and responsibilities of auditors and on concepts such as "integrity and objectivity, independence, professional skepticism and accountability to the public" (p. 100). The POB emphasized the need for these concepts to be reiterated on a regular basis, starting the day the professional is hired, and should be a fundamental part of firm training.

**Organizational Ethical Culture Literature Conclusion**

One purpose of this dissertation was to examine the relationship between ethical culture to the behavior of auditors. As noted in this section of the literature review, researchers have shown that perceptions of corporate culture, especially ethical culture, play an important role in constructing employee attitudes toward the company and its leadership. These attitudes, it was hypothesized in this dissertation study, would impact the behavior of the employees.
Alner, Higgs, and Hooks (2005) noted that the hierarchical team nature of the auditing profession and the fact that audit teams composition changes from engagement to engagement creates a means of allowing “dissemination of organizational knowledge, norms, values, and building of social networks” (p. 6). In other words, the very nature of the profession allows for the easy and rapid introduction to firm culture to those joining the firms.

Regardless of the leaders’ behaviors or the ethical culture of the firm, or how it is embedded within the members of the organization, the individual in-charge auditor’s own value system must be considered. As Hubbard (2004) noted in a discussion of internal auditors, the individual must govern his or her own behavior, suggesting the need for auditors to self-monitor behavior that can lead to ethical violations – especially when cultural norms are in conflict with the auditor’s own value system. Victor and Cullen (1988) suggest that “behavioral compliance with a group or organizational climate incongruent with an individual's level of moral development may lead to adaptive reactions such as stress and whistle blowing” (p.105).

Vitell and Hidalgo (2006) note that Hunt and Vitell (1986, 1993) suggested that “culture affects ethical decision making primarily through one’s deontological and teleological evaluations” (p.32). As will be discussed in the following section on ethical reasoning literature, Vitell and Hidalgo further note that “deontology focuses on the decision maker’s specific actions or behaviors while teleology focuses more on the consequences of those behaviors” (p. 32).
Ethical Reasoning

There is a large body of literature on ethical reasoning in general as well as literature discussing the impact it has in the business community. Normative ethics deals with what should be; with the “ought” and much of the literature in ethical reasoning is based on some normative standard. The following is not intended to review all theories of ethical reasoning; however the primary theories that have been applied to significant business ethics research will be reviewed in this section, including justice (based on deontological ethical theory) and utilitarianism (based on teleological ethical theory). These theories provide the foundation necessary to understand the instrument used in this dissertation study to measure the participant’s ethical position. A discussion of Forsyth’s theories about ethical position used to develop the Ethical Position Questionnaire (EPQ) will conclude this section of the literature review, but I begin by providing a rationale for including this measurement in the study by giving a condensed look at some of the literature related to the study of ethics in accounting.

A Brief Look at Ethics Research in Accounting

Ethical lapses on the part of auditors are perceived to be the cause of many audit failures and audit failures have been of concern since the early days of the profession. After one well-publicized audit failure, the editor of the American Institute of Certified Public Accountants’ (AICPA) Journal of Accountancy wrote in February 1939, “Like a torrent of cold water the wave of publicity raised by the...case has shocked the accountancy profession into breathlessness” (Clikeman, 2003). While not all audit failures are attributed to unethical auditor behavior, many have been linked to unethical or—at a minimum—unprofessional behavior on the part of the auditors. As such, the
academy has responded by conducting research to assist understanding of how and why this type of behavior occurs.

Before ethical conduct in the accounting profession was addressed, there was concern about a general lack of ethics in business. Gibson and Frakes (1997) note that "the first reported study of ethical conduct in business was Baumbart's survey of business executives in 1961 (Baumbart, 1961)" (p. 162). Gibson and Frakes continue that the accounting profession began to pay attention to ethics because "of investigation and criticism by Congressional committees and various professional organizations" (p. 162). A number of researchers have based their work on the early ethics accounting research of Loeb (1971) and Rhode (1978). Loeb utilized Kohlberg's (1969) model as a basis for his research and Rhode "examined the influence of environmental factors on the auditor's professional performance" (Gibson and Frakes, p. 162). Several of the articles discussed next were influenced by and are refinements of the studies of Loeb and Rhode.

Some research indicates that, while there are unethical attitudes, accountants' attitudes do not differ significantly for the general population. Emerson, Conroy, and Stanley (2007) surveyed both practicing accountants and students from two universities to assess ethical reasoning differences between the two samples and to "help us understand the role that [ethical] attitudes may have played in recent business scandals (p. 76). They used a survey instrument with 25 vignettes, most of which were adopted from "previously validated instruments" in order to increase the reliability of results and consistency of "approach in line with that used in the empirical business ethics literature" (p. 76). The vignettes, which included a variety of ethically sensitive issues such as accounting tricks, pressure sales, questionable profit-maximizing behavior, bribery, and
gender discrimination, were ranked by the respondents on a seven-point Likert-type scale according to acceptability.

The findings of Emerson, et al. (2007) suggested that “practitioners and the general population are similar in their perception of the acceptability of using such “accounting tricks” and that some of the accusations about the highly publicized misdeeds of the accounting profession may be unfounded” (p. 79). Further, they concluded that “accounting practitioners may be guided by a legalistic or “rule and order” framework” (p. 80), consistent with the messages of the POB suggesting that leadership within the firms needs to set guidelines to drive audit behavior and enforce those guidelines.

In looking at the effect of ethical decision making model on auditor behavior, Shapiro, Koh, and Killough (2008) assert that auditors view dysfunctional behaviors differently, depending upon the “ethical content of the decision [to engage in the behavior]” (p. 486). They found that auditors do not think that underreporting of time is as unethical as prematurely signing off on an audit step: While 88% of their respondents said that it would be very or extremely unlikely for them to prematurely sign off on an audit step, only 61% would not engage in underreporting of time. (Both underreporting of time and premature signoff are discussed in more detail in the next section of this review of the literature.) Using structural equation modeling (SEM), Shapiro, et al. found that “accountants who use a deontological moral evaluation process are less likely to underreport [time], while those who use a teleological moral evaluation process are more likely to underreport” (p. 485). However, these findings are based on a relative small (n=82) sample and therefore the results may not be as robust as those of other studies.
In order to understand the findings of researchers such as Emerson, et al. (2007) when alluding to rule and order frameworks, and to appreciate the moral evaluative processes Shapriro, et al. (2008) used in their study, it is important to understand the ethical bases that people use in ethical decision making. The next portion of this section will look at the general theories that are most often considered in the business ethics literature and that, as previously noted, provide the basis for the instrument used in this study.

**Historical Ethical Theories Underlying Dissertation Study**

A primary purpose of this dissertation is to gain an understanding of how ethics in the auditing profession impact in-charge auditor behavior. Much of the literature that relates to ethical reasoning among accounting professionals has been based on the work of Kohlberg (1958, 1984, 1987). Kohlberg, whose worked was strongly influenced by Piaget (1932), based his work upon a deontological framework, the theory of justice; therefore this section begins with a discussion of ethical reasoning by reviewing some of the earlier and historically significant works that shaped the theory of justice and its basis in deontology.

**Deontology and the Theory of Justice**

Deontological ethics focuses on duty (in fact the word is derived from the Greek work for duty, *deon*) and on the specific actions or behaviors of the decision maker. Kant (1781/1996) developed a moral absolutist's version of deontology with his Categorical Imperative proposal, suggesting that people should "act only on the maxim whereby thou canst at the same time that it should become universal law" (p. 38) or as stated alternately, "so act as to treat humanity, whether in thine own person or in that of
any other, in every case as an end, never as a means only (p. 47). This suggests that some actions – such as lying – are wrong, regardless of the consequences, and that the end never justifies the means. Ross (1930) however, suggests that consequences must be considered and that an action, such as lying, may be the right thing to do.

One of Ross’s (1930) seven right-making features of moral action is the duty of justice, which implies a duty to ensure that people get what they deserve. Other duties are to help others; avoid harming others; improve ourselves; recompense others when the actor has harmed the other; benefit people who have benefited the actor; and to act according to promises. Ross suggests that people should weigh each of these duties and act in manner that is consistent with the person’s reasoning ability. As such, his theories are consistent with Kohlberg (1958, 1970, 1984, 1987), the most-often quoted theorist in auditing literature.

Kohlberg (1958) developed a theory of moral reasoning, based on the theory of justice, dividing six stages of moral reasoning into three levels. Kohlberg (1984) suggests that “one way of understanding the three levels is to think of them as three different types of relationships between the self and society’s rules and expectations” (p. 173). He uses the term “conventional” to mean “conforming to and upholding the rules and expectations and conventions of society or authority just because they are society’s rules, expectations, or conventions” (p. 172). Kohlberg (1970) chose justice as the basis for his moral reasoning model and discusses why he believes it is the correct choice:

Justice is not a rule or a set of rules, it is a moral principle. By a moral principle we mean a mode of choosing which is universal, a rule of choosing which we want all people to adopt in all situations. We know it is right to be dishonest and steal to save a life because it is just … We know it is sometimes right to kill, because it is sometimes just … There are exceptions to rules, then, but no
exception to principles ... A moral principle is not only a rule of action but a reason for action. (pp. 69-70)

Kohlberg (1981) notes that each stage in his model represents a form of moral thought that can be used to justify behavior. One could argue for any final choice in the decision-making process when faced with a moral dilemma.

Rawls (1971), best known for his work in dealing with the issue of distributive justice, suggests that the theory of justice allows for decisions that are based on equity, fairness, and impartiality. Premeaux (2004) says that “under the theory of justice, rules must be administered fairly and impartially enforced” (p. 270) and that people should not be held accountable for matters they do not have control over. This is consistent with Kohlberg’s (1981) idea that there can be exceptions to rules. Premeaux further suggests that “injured individuals should be compensated by those responsible...[and] individuals should receive differential treatment only when the basis of the treatment is related to the attainment of organizational goals and tasks” (p. 270). Again, these suggestions are consistent with Kohlberg’s proposition that there are moral reasons for action, but goes toward the idea of consequences of actions, and as such, is grounded in teleological or utilitarian theory.

As noted, Kohlberg’s stage theory has been the dominant theory influencing researchers in accounting ethics. More recent work that has been developed in business and accounting ethics will be reviewed, but since the instrument used for this dissertation study is based in a similar framework, it is important to understand both the teleological and utilitarian theories. The next section will provide a brief overview of the literature in these constructs.
Teleology - Utilitarian Theory

Utilitarian ethical theory is considered a teleological theory which bases the appropriateness of an action upon its consequences. Bentham (1789), a leading advocate for utilitarianism, suggested that utility of an action is determined by the happiness that is promoted by the action: its good to the extent the act creates happiness; bad to the extent that it generates the reverse of happiness. This theory is in direct contrast to Kant’s (1781/1996) categorical imperative as it (utilitarian theory) is based on the end result justifying the means, i.e., the consequences are more important than the means by which those consequences were gained.

Premeaux (2004) notes that “utilitarian theories are either act or rule utilitarian” (p. 270). Act-utilitarianism indicates that acts should be based on the greater good – that is, decisions should be made that result in what benefits most of society. Rule-utilitarianism is based upon a system of rules and the decision-maker will make decisions based on the established rules. Act-utilitarianism is founded on individual reasoning and requires the individual to identify and consider all the consequences of a decision ex ante, whereas rule-utilitarianism has a set of rules, established by society or a group of others, who have already considered the consequences of certain decisions. Rule-utilitarianism, therefore, removes the onus of consequence-consideration from the individual.

According to Preuss (1998), “rule-utilitarianism is applied in a council recommendation by the Institute of Chartered Accountants of Scotland issued in 1971” (p. 502). Preuss notes that the council “recommends that members ... should not disclose past or intended civil wrongs, crimes ... or statutory offences unless they feel the damage to the public likely to arise from non-disclosure is of a very serious nature” (p. 502).
When accountants issue these kinds of edicts, it creates an environment where professional judgment can be suspended and blindly following the rule can take precedence, however, this type of behavior is often at odds with individual value systems.

The preceding portion of this section has looked at two of the primary ethical theories which provided the foundation for Forsyth (1980, 1992) as he developed the EPQ—the instrument used to measure the ethical position of this study’s participants. The remainder of this section will review Forsyth’s taxonomy and the EPQ and briefly examine some of the research that has been conducted utilizing Forsyth’s instrument.

*Forsyth’s Taxonomy and Ethical Position Questionnaire*

According to Hunt and Vitell (1986, 1993), decision makers determine the rightness or wrongness of an action by comparing alternative courses of action to their own personal values, which are typically inherent or pre-established in the individual. The values can be fairly general (e.g., it is wrong to lie) or they can be situation specific (e.g., it is wrong to under-report time on an audit engagement). Since a person’s view of what may be considered right or wrong, ethical or unethical can be dependent upon their ethical reasoning viewpoint, it was important to include a measure of the study participant’s own ethical positioning. As previously noted, Forsyth’s (1980) EPQ was used in this dissertation to assess the point of view represented by the various participants in this study.

Building upon the theories of teleology and deontology, briefly reviewed in the preceding portion of this section, Forsyth (1980, 1992) has used two orthogonal dimensions of ethical ideology, idealism and relativism, in the development of a taxonomy for classifying people into one of four moral philosophies (see Table 1).
Idealism is a respondent's tendency to consider injury to others in making decisions, whereas relativism is a tendency to disregard universal moral rules when making moral judgments. According to Forsyth, the strength of a person's tendency toward each of these two dimensions will identify him or her as being one of four ethical positions: a situationist, a subjectivist, an absolutist, or an exceptionist.

Forsyth (1980) asserts that idealists believe that harming others is universally wrong and that the rightness of behavior must be considered, noting that "desirable consequences can with the 'right' action always be obtained" (p. 176). According to Elias (2002), idealists insist that harming others should always be considered avoidable and that, in any decision, one should choose where injury to others is avoided. Those who are low in idealism, according to Forsyth (1992), believe that moral actions will not always provide desirable consequences and harm to others may be necessary to assure the best for the most.

Relativism measures an individual's attitude toward universal moral principles and rules. Forsyth (1992) indicates that relativists do not consider rules, but rather the circumstances and their own personal values when making moral judgments. Those low in relativism believe in and adhere to universal moral absolutes when making ethical decisions. According to Forsyth, Nye, and Kelley (1988), those low in relativism believe in rules such as the Ten Commandments and think they are useful in making decisions with an ethical consequence.

By placing idealism and relativism in a two-by-two matrix, Forysth (1980) made the assumption that the two are not mutually exclusive and that people hold high or low
levels of each philosophy in making moral judgments (see Table 1). Where levels of these two dimensions intersect creates the four mutually exclusive ethical positions:

1. Situationalists: those who rate high on both idealism and relativism.
2. Absolutists: those who rate high on idealism and low on relativism.
3. Subjectivists: those who rate low on idealism and high on relativism.
4. Exceptionists: those who rate low on both idealism and relativism.

Situationists reject universal moral rules and principles but still believe that moral action is that which benefits all individuals involved and are labeled as both relativistic but also idealistic skeptics. Absolutists follow a deontological sense of ethical reasoning and believe that following universal moral rules will always provide the best outcome. Subjectivists have been likened to ethical egoists and believe that personal values and perspective—more than universal moral principles or rules—should drive decision making. Finally, exceptionists apply a utilitarian or teleological perspective and agree that moral principles should guide judgments; however they are willing to allow for exceptions to the rules when negative consequences are likely to result.

Forsyth (1980) indicated that, at the time, there was a need for empirical research looking at the predictive validity of ethical ideology in terms of moral behavior. He developed the EPQ to provide a measure of the previously discussed four personal moral philosophies and provide a means of allowing research to examine the relationship between ethical ideology and ethical behavior. (The EPQ is discussed in more detail in Chapter Three as it is one of the instruments used in the research design for this dissertation. See Appendix D for a copy of the instrument.) Forsyth (1992), on the basis
of his research in this area, asserts that an individual’s behavior, when faced with an ethical dilemma, is determined by his or her personal moral philosophy.

Table 1. Four ethics positions

<table>
<thead>
<tr>
<th>Idealism</th>
<th>Relativism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Exceptionism</td>
<td>Exceptionism: Individuals should act in ways that are consistent with moral rules, but one should remain pragmatically open to exceptions to these rules.</td>
</tr>
<tr>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Act with personal values and perspectives should guide their moral choices, rather than universal ethical principles or desire to achieve positive consequences.</td>
<td></td>
</tr>
<tr>
<td>Absolutism</td>
<td>Absolutism: Individuals should act in ways that are consistent with moral rules, for doing so will in most cases yield the best consequences for all concerned even if doing so will violate traditional rules about ethics.</td>
</tr>
<tr>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Situationism</td>
<td>Situationism: Individuals should act to secure the best possible consequences for all concerned even if doing so will violate traditional rules about ethics.</td>
</tr>
</tbody>
</table>

Selected Studies Using the EPQ

Tsahuridu and Walker (2001) examined women and men's ethical ideologies using Forsyth's (1980) EPQ. Their sample of 662 was comprised of students in two Western Australian universities. According to Tsahuridu and Walker, the "data revealed that women are less likely to undertake ethically questionable activities to support and/or protect the organisation. Women are also found to have a more idealistic orientation than men, which partially explains the previous findings" (p. 53). They further found that women were less likely to put the organization's interests over societal ethical values.

Shaub, Finn, and Munter (1993) used a field study methodology to examine the effects of personal ethical orientation using Forsyth's (1980) EPQ, organizational commitment, and professional commitment on the auditor's ethical sensitivity. Using a sample of 257 auditors, Shaub, et al. found that the auditor's ethical orientation affected their organizational commitment; that those high in idealism or low in relativism had greater commitment than others. They also found that ethical orientation associates with the ability to recognize professionally contextualized ethical issues.

Douglas, Davidson and Schwartz (2001) used the EPQ in their study of corporate ethical culture, auditor ethical orientation, and auditor behavior. In their study of 304 auditors, they found mean idealism scores of 5.72 and relativism scores of 4.97. As will be discussed in Chapter Four, this is consistent with the findings from this study, where idealism scores are significantly higher among participants.

Conclusion to Ethical Reasoning Literature Review

This section included a review of a selection of the literature in accounting that seeks to understand how ethical reasoning of individuals plays a part in their decision-
making and actions. It also provided a brief look at the works surrounding the historical frameworks providing us an understanding of ethical reasoning processes and at the specific theory and instrument that was used in this study. Understanding this body of work is needed to appreciate the inclusion of a measure of the personal ethical position of the study participants in the model being tested.

This dissertation looked at the effect of the auditor’s personal ethical orientation as a moderating variable to the perceived frequency of dysfunctional behaviors such as underreporting of time and premature signoff of an audit step. One of the sub-questions in this study is to determine to what extent auditors own ethical reasoning moderates their audit behavior when working in an ethically incompatible environment. The behaviors that I am studying, as noted previously, are termed dysfunctional audit behaviors and the final section reviews the relevant literature surrounding these behaviors.

Dysfunctional Audit Behavior

Psychology research demonstrates that decision makers often fail to consider factors affecting the quality of evidence when other salient factors exist (e.g., Griffin and Tversky 1992) and quality of evidence is paramount in the auditing profession. Most empirical auditing researchers define audit quality as a measure of the quality of evidence gathered to support the audit opinion. Audit quality is further defined relative to audit risk which is the risk that an auditor may fail to modify the opinion on financial statements that are materially misstated (AICPA, 2006).

There have been numerous studies conducted using different measures of audit quality (e.g., DeAngelo, 1981; Titman and Trueman 1986; Beatty, 1989). Many of these studies have focused on the issue—and measure of—dysfunctional audit behavior (DAB)
which can significantly impact the quality of audit evidence. Several of these have looked specifically at DABs associated with time and budget pressures (e.g., Alderman & Deitrick, 1982; Lightner, Leisenring, & Winters, 1983; Kelley & Margheim, 1990, 2002; Margheim & Kelley, 1992; Margheim & Pany, 1986), one of the dysfunctional behaviors that are of focus in the current study. The POB (2000) identified audit time and budget pressure as an area of concern for audit quality:

The Commission on Auditors' Responsibilities initially raised the issue of time and budget pressures as a factor in substandard audits... The Panel believes that time and fee budgets... can place significant pressures on engagement teams. These pressures can create an environment in which audit quality might be compromised if engagement team members, at any level, perceive that their individual performance is measured primarily by meeting time deadlines and budget estimates. (p. 105)

Margheim and Pany (1986) seem to agree with the POB's conclusion as they suggested that behaviors associated with time and budget pressures, such as underreporting of chargeable time worked and premature signoff of audit procedures, “may result in unrealistic future time budgets, inappropriate staff evaluation, inferior audit quality, lost revenues to the CPA firm, and exposure to legal liability” (p. 51).

One of the first studies to address the two dysfunctional behaviors, premature signoff and underreporting of time, was conducted by Rhode (1978) and sanctioned by the AICPA's Commission on Auditors' Responsibilities. Rhodes found that the primary reason for these two behaviors was, as others have noted, “time budget pressure and the belief that the audit step was not material or necessary were the main reasons for such behavior” (as cited in Margheim and Pany, 1986). Further research has borne out the findings of this early study. Alderman and Deitrick (1982) confirmed Rhode's findings and suggested that audit firms should strengthen communication and improve trainings to
help to address the issues. The communication gap between leaders in the firms and the audit staff/in-charges was a finding from the mini-study I conducted that precipitated this dissertation research. It appears obvious that the problem has not, as of yet, been rectified.

*Underreporting Time*

Underreporting of chargeable time (URT) relates to the auditor failing to report all time spent working on audit engagement tasks. According to Ponemon (1992b), when an auditor engages in URT the behavior can often create ethical tension for auditors because it is often a violation of firm policy and/or written standards. He further speculates that auditors may be concerned with violating norms established by co-workers (other auditors) or perceive conflicts with their own personal values.

Otley and Pierce (1996b) suggest that while URT is contrary to most audit firms' policies, the practice continues unabated with either implied or explicit approval from firm leadership. Rhode (1978) found that 55% of the CPAs surveyed reported underreporting time while 67% of the auditors responding to Lightner, et.al (1983) admitted to the practice, and 55% of Otley and Pierce's respondents said that they underreported time at least sometimes.

Ponemon (1992b), in an experimental between-subjects lab design study, observed actual URT on an audit task exercise during a CPA firm training program. Ponemon's sample was comprised of 88 staff auditors from a national CPA firm attending a firm-sponsored training program. Using a simple audit task that was part of the sponsoring firm's training program, Ponemon administered two versions of the task to one control group and two experimental groups (time-budget and peer-pressure). An
earlier pilot study had already provided accurate times for completing the two versions of the task.

Ponemon (1992b) had the control group complete one version of the task without any manipulations. Within both of the experimental groups, Ponemon introduced a manipulation: imposing a time boundary for the time-budget group, and administering two versions (one shorter than the other) without informing the peer-pressure group. His findings showed that auditors are susceptible to both time and peer pressure and a significant number underreported the time it took to complete the task. Ponemon also tested the participants for their level of moral reasoning using Rest's (1979, 1986) Defining Issues Test and found that auditors operating at lower moral reasoning capacities.

Almer, et al. (2005) suggest that "an unusual aspect of the CPA's job is that there is actually incentive to underreport time worked" (p. 6). Almer, et al. and others (Lightner, Adams, and Lightner, 1982; Kelley and Margheim, 1990; Ponemon, 1992b) assert that this incentive is the result of the fixed-fee pricing on a number of audits and the fact that CPAs are typically evaluated on their ability to complete work within the budgeted amount of time.

Sweeney and Pierce (2006), in a field survey investigation of URT, found that audit partners and seniors believe URT occurs for three main reasons: "inefficiency, pressure from budgetary and performance evaluation systems, and requests from management to URT" (p. 867). As a result of their qualitative study and earlier quantitative research (e.g., Kelley & Margheim, 1987; McNair, 1991; Otley & Pierce, 1996b), Sweeney and Pierce (2006) determined that auditors concede several
consequences of URT for both the individual auditor and the audit firm. Individual
negative consequences include, but are not limited to the “increased pressure on future
jobs to maintain the same level of efficiency”, “impact on auditors in subsequent years
due to perpetuation of artificially tight budgets”, “lower motivation and morale”, “loss of
pay or time off for overtime”, and the overall “ethical implications” (p. 867). Negative
consequences for the firms include perpetuation of increasingly tighter budgets due to
“inaccurate management information for planning and decision making” as well as “loss
of revenue for firm”, “impact on turnover”, and “potential to impact on quality of work”
(p. 867) among others.

In addition to these negative possibilities, positive consequences were noted, such
as better performance reviews for the staff and lower costs for the firm, but these are
typically considered short-term in nature and the longer-term negative consequences of
URT have generally been more serious, including poor morale due to the “implied
devaluation of work which the individual auditor feels has been productive and efficient”
(p. 880) and the lack of reliable information that could have an impact on future fee
negotiations with the client.

Sweeney and Pierce (2006) note that the relationship between ethics and
underreporting of time is worth further research:

The relationship between ethics and URT may also prove to be a fruitful area for
further research. Ponemon (1992) found that auditors with low levels of moral
reasoning underreported time more severely. The implication in Ponemon (1992)
and other URT studies is that URT is a single form of behaviour that constitutes
an unethical response to pressure. (p. 888)

This is consistent with the message of the POB’s Panel on Audit Effectiveness (2000),
that, while recognizing that client deadlines and engagement budgets are a necessary part
of auditing, indicated firms must take this issue seriously. It suggested that, while many
firms have controls built into their audit processes that are designed to help manage time
and budget related quality issues, managing the possible risks from time pressures on
engagement teams needs to be a high priority. The panel suggests that “performance
measures need to be balanced and clearly and carefully communicated to all professionals
to ensure that all personnel understand that quality work, not meeting time deadlines and
budget estimates, is the ultimate priority” (p.105).

Premature Signoff of Audit Procedures

Several studies (e.g., Rhode, 1978; Adlerman & Deitrick, 1982; Margheim &
Pany, 1986; Raghunathan, 1991) suggest that time budget pressures can impact audit
quality not just through URT, but also through the premature signoff of audit procedures
by the auditors. Premature signoff (PMSO) is the term used for auditors noting on audit
working papers that required audit test work, not covered by another audit procedure, had
been performed and completed when in fact it had not. Rhode found that 60% of the audit
in-charges, managers and partners surveyed admitted to prematurely signing off on a
required audit step at some point in their career. Alderman and Deitrick found that 31%
of the auditors participating in their study believe instances of PMSO occur in general,
while 25% of auditors in Malone and Roberts’ (1996) study indicated they had engaged
in PMSO; Raghunathan (1991) found 55% of respondent’s admitting to PMSO at least
‘very rarely; and Kelley and Margheim (1990) only had 8% of respondents report they
had engaged in at least one instance of PMSO.

Margheim and Pany (1986) found auditors to believe that PMSO was more likely
to occur whenever the auditor perceives the step as unnecessary to the overall audit.
Alderman and Deitrick (1982) reported that participants in their study also thought PMSO to be caused by this perception; however, they also found that PMSO results from the auditor’s ready acceptance of client explanations, time budget pressure, and inadequate supervision. While 77% of those surveyed by Alderman and Deitrick thought their firms had systems in place to detect and control for PMSOs, as the authors note, this meant that over 20% of firms were deficient in this control.

Margheim and Pany (1986) addressed two research questions that are of import for the current study. They asked, as previously discussed, if the auditor’s perception of the necessity of the audit step would impact the likelihood of PMSO; and they inquired if the existence of an explicit quality control standard would impact the likelihood of URT and PMSO. At the time of their study, the AICPA had developed a set of quality auditing control standards. Margheim and Pany hypothesized if the firm adopted and communicated the importance of these and other similar standards, it should “reinforce the individual’s ethical responsibilities by indicating that the firm does not with to tolerate such policies” (p. 52). A significant part of this dissertation’s research study was aimed at determining if this emphasis on quality is being communicated by firm leadership – and perceived to be important – to the in-charge auditors.

**Conclusion to Dysfunctional Auditor Behavior Literature Review**

This final section of this chapter addressed selected research focused on the dependent issue in my study: dysfunctional audit behavior. Most all of this literature has shown that auditors are susceptible to time-budget pressure and two reactions to this pressure are to underreport chargeable time and to sign-off on uncompleted procedures. Both of these acts have been shown by research to negatively impact audit quality. This
dissertation looked at these two behaviors in a manner similar to earlier research but in a newer light as I sought to understand the impact that both levels of authenticity in leaders and the firm's ethical culture have on these DABs.

Conclusion to Review of the Literature

In conclusion, there is a significant body of literature surrounding the four areas covered by this dissertation proposal: authentic leadership theory, corporate ethical cultures, personal ethical positioning, and dysfunctional audit behavior. I have developed a model that ties together the theories and ideas presented in the literature. Beginning with a survey of the relatively new body of literature that explains and tests Authentic Leadership Theory, I attempted to tie this construct to ethical culture by providing a sample of works that showed the impact of leadership on this part of overall corporate culture. Next, it was shown in prior research that an individual's own personal ethical reasoning ability and position impacts his or her response to the firm culture—thereby impacting, at least to some extent, ethical decision-making and behavior within the firm. Finally, looking at the research into dysfunctional audit behavior allows for an understanding of the types of behaviors that were incorporated into the dissertation research model design.

In other words, this review was an attempt to inform the reader how the literature among the four topical areas covered are inter-twined—that as we study leadership, we have to understand that the leader's attitudes and behaviors can have an impact on corporate culture which may impact behavior of employees. And finally, if the acts of the employee have an ethical dimension, we must consider that their behavior—in this dissertation, the auditor's behavior—may be modified by their own ethical reasoning.
While there are volumes of literature on ethical culture, ethical orientation, and auditor behavior, there is a smaller but growing body of work, to which this dissertation hopes to add, in Authentic Leadership Theory. It is my hope that this review allowed for a better understanding of each of the topics and how each fits into this dissertation’s research design. The following chapters will provide a fuller understanding of the study’s design, methodology, and limitations; its findings; and the overall conclusions that can be reached from the study.
CHAPTER THREE
RESEARCH DESIGN, METHODOLOGY, AND LIMITATIONS

To reiterate, this study was designed to explore whether relationships appear to exist between auditing firm authentic leadership, ethical firm culture, and dysfunctional auditor behavior (DAB). To investigate these potential relationships, I first gathered data about in-charge auditors' perceptions of certain aspects of the leadership of their firms and their firms' ethical culture, as well as measures of the auditors' beliefs regarding the instances of dysfunctional audit behaviors occurring within the firms and the auditors' own ethical reasoning processes and perspectives.

More specifically, I attempted to gather data anonymously from in-charge auditors through an online survey. This chapter (a) provides a brief description of the sample; (b) outlines the survey procedures employed in the study; (c) reviews the three previously published instruments used in the current study design and discusses other survey response items; (d) provides a discussion of the methodology used for data analysis; and (e) notes the limitations of the research design and methodology of this study.

Sample and Overview of the Survey Procedures

The Sample

The final sample pool included in-charge auditors representing the so-called Big Four (Deloitte & Touche LLP, Ernst & Young LLP, KPMG LLP and PricewaterhouseCoopers LLP); “second-tier” international firms (e.g., BDO Seidman; Grant Thornton; RSM McGladrey; and Mayer Hoffman McCann); and large regional and local firms (e.g., Moss Adams; Frank Rimermann + Co., LLP; AKT). In-charge auditors
were chosen as the subjects for this study because they would likely have been with their firm at least two years, long enough to have gained an individual perception of the firm's leadership and firm culture, and yet—while responsible for supervising staff auditors—not generally viewed as part of the firm's leadership.

Data Collection: Survey Procedures

Upon approval of this study by both the dissertation committee and the University of San Diego's Institutional Research Board (IRB), I began data collection. After deciding to solicit responses from in-charge auditors associated with a variety of firms, I personally sent—and asked colleagues within each of the aforementioned firms to forward—an email (Appendix A) to in-charge auditors requesting their participation in the study. The body of the email contained basic guidelines for the study, including necessary elements required by the University of San Diego's IRB, as well as a hyperlink to the actual instrument service site, SurveyMonkey.com. Secure Sockets Layer (SSL) encryption was added to the SurveyMonkey account so that the survey responses were collected in an encrypted environment, adding additional security for participants. Given the method of data collection, I am unable to ascertain the exact number of auditors who received the email and link to the survey and am, therefore, unable to present a response rate. This inability to determine a response rate has implications regarding generalizability of the results, as will be discussed later in this chapter.

Data were collected during the period August, 2008 through November, 2008. A total of 151 surveys were submitted; however, several of these were completed by auditors holding positions other than in-charge auditor, and these surveys, consequently, were excluded from the analysis. Additionally, some surveys were missing significant
data and were also excluded. In order to ensure reliability of the data, I had chosen to exclude any surveys with more than 5 missing response items. After excluding some of the submissions for one or more of the reasons I have just listed, 120 completed, usable surveys remained. Each of these included surveys was 100% complete and, therefore, I did not have to adjust the data set for missing data.

*Anonymity of the Sample*

The questionnaire requested that participants not identify themselves or their firms by name. They were, however, asked to identify their firm size by category (Big Four; other international/national; regional; local) to facilitate the analysis process. This procedure simultaneously provided anonymity for participants and helped minimize the likelihood of a social desirability response bias. Robertson and Anderson (1993) contend that, if an individual can project him or herself into a situation—and certainly, in this study, the auditors could do so when answering questions relative to auditor behavior—he or she may provide socially desirable responses. Having the instrument completed and returned anonymously and providing assurance that no single response or firm-specific responses would, or even could, be shared with any member of a firm’s leadership reduced the potential for this type of measurement error.

Even when answering anonymously, however, some of the questions included on the survey can influence the findings of most survey-based ethics studies because participants will often try to provide ethically desirable answers. Arnold and Ponemon (1991) note that one method to reduce socially desired response bias is to ask “the research question in the third person [to] provide a reliable measure of what the
individual actually believes” (p. 6). The questions and vignettes used to measure auditor behavior in the instrument were all posed in the third person.

Participants were told that they could request, via an email separate from their survey submission, an executive summary of the findings. Several participants sent an email requesting this summary, and it has been emailed to those participants. As indicated, all procedures—including procedures for providing study participants with the results of the study—were established to insure that these requests could not be linked with the surveys completed by those making the request. Hence, anonymity was not compromised in providing study results to those who wished to see them, or in any other part of the research design.

Research Instrument

Data were collected using one online survey instrument comprised of six sections comprised of either existing survey instruments designed to measure the variables in question or original instruments/questions that were developed for this study: The sections gathered data about a firm’s leadership; its ethical culture and corporate ethics; the respondent’s individual ethical position; and auditor behavior in the respondents’ firm. The final section of the instrument gathered demographic data and auditor characteristics.

Leadership was measured by using Avolio, Gardner, and Walumbwa’s (2007) Authentic Leadership Questionnaire (ALQ). Organizational Ethical Culture was measured by using Hunt, Wood and Chonko’s (1989) Corporate Ethical Values Scale (CEV). Individual ethical position was measured using Forsyth’s (1980) Ethical Position Questionnaire (EPQ); auditor behavior was measured by responses to questions and
vignettes I created based on conversations with practicing auditors and prior research instruments used by Kelley and Margheim (1990). The final section of the survey gathered basic demographic information (e.g., age, sex) and information about other auditor characteristics (e.g., amount and type of ethics training), as well as responses to three open-ended questions formulated for this study. Before administering the survey, I was granted permission to use the existing survey instruments that were components of the survey instrument used in this study.

Due to copyright provisions of selected portions, the entire instrument has not been replicated for the dissertation; however, as indicated in the subsequent discussions, all or portions of the previously published instruments are presented in the appendices (Appendix B—ALQ; Appendix C—CEV; Appendix D—EPQ). Table E.2 in Appendix E displays the response items used to gather data about the auditors' perceptions of frequency of dysfunctional audit behaviors.

In the following sections, the different previously published instruments used and questions written to create the study survey are discussed. The discussion begins with a look at the ALQ and concludes with a discussion of the pretesting of the survey.

**Authentic Leadership Questionnaire (ALQ)**

As noted in the Chapter Two, the theory about authentic leadership is relatively new and, as such, has not been as empirically researched as some other more established theories in the leadership field have been. The ALQ was created by Avolio, Gardner and Walumbwa in 2007 and is in its first version. Because of this, the validity and reliability of the instrument might be questioned. However, the authors of the ALQ have noted, in the instrument overview, that the ALQ is "a theory-driven leadership survey instrument
designed to measure the components that have been conceptualized as comprising authentic leadership” (Avolio, et al., 2007). Avolio, et al. assert that the four scales comprising the ALQ address certain questions:

1) Self Awareness: To what degree is the leader aware of his or her strengths, limitations, how others see him or her and how the leader impacts others?
2) Transparency: To what degree does the leader reinforce a level of openness with others that provides them with an opportunity to be forthcoming with their ideas, challenges and opinions?
3) Ethical/Moral: To what degree does the leader set a high standard for moral and ethical conduct?
4) Balanced Processing: To what degree does the leader solicit sufficient opinions and viewpoints prior to making important decisions? (Overview)

The developers of the ALQ, in order to test the instrument for both validity and reliability, used five independent samples, two from a university setting and three from field settings. The field studies were conducted in geographically diverse populations: one in the United States, one in Kenya, and one in China, using samples from both state-owned and multinational firms.

Although Walumbwa, et al. (2008) caution that it is “important to recognize that the ALQ shares a number of measurement limitations that are inherent to measures of leadership in general (see Avolio et al., 2003), such as not accounting for contextual influences on leadership” (p. 118); nevertheless, they found it to be, statistically, both a valid and a reliable measure of authentic leadership. In one of two separate semester course studies in the university setting, the researchers found that “the zero-order correlations among the four measures [self-awareness; transparency; ethical/moral; and balanced processing] and outcome variables provide initial evidence that the core authentic leadership construct possesses a good degree of predictive validity” (p. 108).
The internal consistency estimates were, for each of the constructs, above the .70 level that Nunnally & Bernstein (1994) note is appropriate for research.

Both the U.S. and Chinese samples were supportive of the higher-order factor model of authentic leadership. Their best-fitting model was found in the Chinese sample. This model had a lower chi-square and Cronbach’s alphas above .70 for all constructs: self-awareness, .79; relational transparency, .72; internalized moral perspective, .73; and balanced processing, .76. Walumbwa, et al. (2008) note that their samples were confirming for validity in deriving a combined measure for authentic leadership:

Taken together, these results suggest that there is substantial convergent validity among the four measures and that self-awareness, relational transparency, internalized moral perspective, and balanced processing converge to form a higher-order factor that is indicated by and explains the relationships among the lower-level measures in both the U.S. and Chinese samples. (p. 101)

The researchers further provide evidence that authentic leadership is positively related to ethical and transformational leadership yet also distinguishable from these two leadership behaviors:

Discriminant validity can be established if the average variance extracted value of the factor in question (e.g., authentic leadership measure) is greater than the squared correlation between that factor and another factor (in our study, ethical or transformational for Samples 1 and 2, respectively; Netemeyer, Johnston, & Burton, 1990). The average variance extracted when all variables are included (again using items as indicators) in the same equation were .52 (Sample 1) and .67 (Sample 2). (p. 108)

Confirmatory factor analysis (CFA) revealed that the four factors are strongly correlated when the items are loaded on their respective factors. Sample items from the ALQ are presented in Appendix B.
Corporate Ethical Values Scale (CEV)

As discussed in Chapter Two and earlier in this chapter, a significant body of research suggests that organizational leaders are responsible for creating the ethical culture that exists within the organization. Because of this literature, one hypothesis of this study focused on the relationship between the in-charge auditors’ perceptions of leadership behavior as measured by the ALQ, and the corporate ethical culture in which they work. Another hypothesis of the study was designed to look at the relationship between in-charge auditors’ perceptions of their firm’s ethical culture and in-charge behavior in the conduct of the audit. In order to test both of these hypotheses, a measure of corporate ethical values was needed. The measure of corporate ethical values used for this study, the Corporate Ethical Values Scale (CEV), replicated in Appendix C, was developed by Hunt, Chonko and Wood (1989) to determine perceptions about three broad-based variables:

(1) the extent to which employees perceive that managers are acting ethically in their organization (see item 1 [of the CEV scale]), (2) the extent to which employees perceive that managers are concerned about the issues of ethics in their organization (see item 3), and (3) the extent to which employees perceive that ethical (unethical) behavior is rewarded (punished) in their organization (see items 2, 4, and 5). (p. 83 – 84).

Hunt, et al. note that the instrument measures the “composite of the individual ethical values of managers and both the formal and informal policies on ethics of the organization” (p. 79). The theory that supports the CEV was presented in the review of the literature surrounding ethical corporate culture in Chapter Two.

Hunt, et al. (1989) reported a unidimensional factor structure and high reliability (coefficient alpha = 0.78) for their CEV scale. Further research has shown that the scale can be used effectively to measure the ethical culture of a firm. Douglas, Davison, &
Schwartz (2001) used the CEV in their review of auditing firm ethical cultures and confirmed the unidimensional factor structure with data revealing a coefficient alpha of 0.71. Other researchers (Paolillo and Vitell, 2002; Singhapakdi, Vitell, & Franke, 1999; Valentine & Barnett, 2002; Valentine and Fleishman, 2004) have found the instrument to be both valid and reliable as a measure of the ethical environment within a corporate setting. As such, the scale appears to be a psychometrically defensible way to measure a key variable in this study, a firm’s ethical culture.

*Ethics Position Questionnaire (EPQ)*

One of the hypotheses of this study was that the perception of ethical firm culture influences auditor behavior. This hypothesis, however, is impacted by another hypothesis: the influence of firm culture is mediated by an individual’s personal ethical orientation or position. As such, the instrument that was assembled and partially created for this study included a section to gather data on the individual ethical attitudes of the participant in-charge auditors. This portion of the instrument is discussed in this section.

The Ethics Position Questionnaire (EPQ) (see Appendix D) developed by Forsyth (1980) was used to gather data regarding the personal ethical orientation of the surveyed auditors. The EPQ provides a measure of the ethical orientation constructs *idealism* and *relativism*. Auditors were asked to indicate their level of agreement on a five-point Likert scale to the EPQ’s 20 attitude statements, the first 10 measuring their level of idealism and the second 10 their level of relativism. The mean score of the auditors’ responses to each of the idealism items and the mean score of their responses to the relativism statements were calculated. According to Forsyth, O’Boyle & McDaniel (2008), “the
scales are orthogonal and are only slightly correlated with social desirability (Forsyth and Nye, 1990; Forsyth et al., 1988)” (p. 3).

As discussed in Chapter Two, Forsyth’s taxonomy identifies four personal moral philosophies or ideologies: situationism; subjectivism; absolutism; and exceptionism. Situationists, according to Forsyth, reject moral rules and ask if the action yielded the best possible outcome in a given situation. Subjectivists reject moral rules and base moral judgments on personal feelings about the action and the setting. Absolutists believe that actions are moral when they yield positive consequences through conformity to moral rules. Finally, exceptionists believe that conformity to moral rules is desirable; however, exception to the rules is often permissible.

Forsyth (1980) suggests that these four categories of personal ethical philosophy (PEP) are based upon a person’s measured level (high or low) of idealism and relativism (see Table 4). Forsyth asserts that idealism and relativism are two separate fundamental dimensions. Idealism connotes a concern for principles, whereas relativism is associated with a concern for promoting human welfare. According to Forsyth (1992), both of these constructs “influence a variety of moral processes and have implications for ethical debates over business practices” (p. 461). As shown in Table 1 (presented in Chapter Two) and discussed in Chapter Two, respondents with high scores on both are, according to Forsyth (1980), situationists; those high on idealism but low on relativism are labeled absolutists; those low on idealism but high on relativism are subjectivists; and those low on both measures are exceptionists.

The EPQ has been validated in a number of prior studies (Forsyth, 1981; Leary, Knight, and Barnes, 1986; Forsyth, 1992; Schaub, Finn & Munter, 1993; Lawrence &
Shaub, 1997; Elias, 2002) in addition to the original study from 1980. In this first study, Forsyth's (1980) data revealed a coefficient alpha of .80 for the idealism construct, and .73 for the relativism construct.

Although Forsyth (1980) hypothesized that the relationship between ethical ideology and behavior was "tenuous" (p. 182), Barnett, Bass, Brown and Hebert (1998) suggest that "personal moral philosophy is an important influence on ethical decision making that should be considered in empirical studies of business ethics" (p. 715). As such, the EPQ was included in the survey to gather measures to test the possible relationships between the in-charge auditors' ethical ideology and their beliefs regarding the frequency of dysfunctional auditor behaviors (see Hypothesis 3 in Figure 1 in Chapter One). Further, these measures were used as variables in a second model that examined the relationship between ethical firm culture and auditor behavior to determine the possible moderating effect the auditors' individual position would have on the model. Hypothesis 2 shows the model without the moderating variables (see Figure 1 in Chapter One) and Hypothesis 6 shows the model that includes these variables (see Figure 2 in Chapter One).

**Dysfunctional Auditor Behavior Questions**

The next section of the survey questionnaire asked the participants to indicate the frequency of selected dysfunctional behaviors among in-charge auditors at their firm. The response items (see Table E.2. in Appendix E) were anchored from 1 to 5, with 1 = never, and 5 = nearly always. The questions created for this section of the survey were based, in large part, on a questionnaire used in previously published research (Kelley and Margheim, 1990). Kelley and Margheim (1990) verified the reliability of the scale used
in their study by telephoning a subset of respondents to the written questionnaire. Using paired t-tests, they found no significant differences in the verbal and written responses ($p > .16$) for all but one of the questions (relating to superficial review of client documents).

In addition to the questions related to the frequency of dysfunctional behavior among in-charge auditors, two vignettes with frequency-based response items were included. The vignettes were created after discussion with current and former in-charge auditors (who did not participate in the data collection phase of the study). These vignettes were discussed with four different auditors who all agreed that they represented relevant, timely ethical dilemmas faced by today's in-charge auditors. One vignette portrayed a situation involving time budget pressure leading to underreporting of time worked on audit procedures and the second vignette involved premature sign-off of an audit procedure.

After comparing business ethics studies, Cavanaugh and Fritzsche (1985) determined that “as a vehicle for investigating an individual’s ethical principles and ethical behavior, vignettes provide significant advantages over other instruments” (p. 291). The vignettes were crafted using a recognized technique for validity assessment: the vignettes were developed based upon information received from practicing auditors and from the literature; the vignettes were presented to a panel of practicing auditors for comments and review; and were then pretested on subjects similar to those that comprised my sample population (Cavanaugh and Fritzsche, 1985). I interviewed several in-charge auditors who did not participate in the study and the situations described were among the most common cited as ethical problems confronted in practice. Further, the vignettes' variables (under-reporting of time and premature sign-off) have been tested in
other scholarly research (e.g., Kelley and Margheim, 1990; Otley and Pierce, 1996).
After developing the vignettes, the in-charge auditors that suggested the scenarios reviewed them for accuracy in portraying the ethical situations they had described. The first was approved without further modification while the second vignette was modified based on feedback and later approved by each auditor.

Open-ended Response Items

In addition to the survey questions, the questionnaire contained a space for three open-ended responses where participants could, if desired, provide additional descriptive support for the study. The three areas allowed the participants to provide their perceptions regarding (1) their ethical attitudes of their firm’s leaders; (2) their firm’s commitment to ethical behavior; and (3) perceptions of in-charge auditors’ frequency of dysfunctional behavior in conducting audits for their firm. While several participants responded to these open-ended response items, the response rate for these items was low (only 10 of the 120 usable surveys contained any responses to these items) and, consequently, these responses were not used in data analysis.

Pretesting of the Survey

The first version of the survey instrument was pretested on a sample of four recently promoted audit managers (who served for at least part of the past two years as an in-charge auditor), who verified its relevance to the audit profession and provided a measure of face validity. These managers also made suggestions to help further refine the final instrument.

The final version of the survey instrument was then pretested by 27 undergraduate and graduate accounting students and by 10 auditing experts. All students participating in
the pretesting had more than one year of work experience and all of the auditing experts held positions other than the in-charge auditor position. The final version of the instrument was found to require approximately 10 minutes for completion.

Data Analysis

Once measures of the independent and dependent variables (perceptions of authentic leadership constructs, firm ethical cultures, ethical positions of the in-charge auditors, selected auditor characteristics, and the frequency of dysfunctional audit behaviors), were obtained, these data were entered into a statistical software package, SPSS, version 17, for analysis. This section will review the various procedures used to analyze the data including the testing of the reliability and validity of the previously operationalized scales and the methodology for further analysis of the data, including testing of hypotheses.

Establishing the Reliability of the Constructs

In order to first determine the reliability of many of the measures used in testing of the study’s hypotheses, Cronbach’s alpha was determined for each of the constructs that had been made operational through the instruments discussed previously in this chapter. Cronbach’s coefficient alpha measures internal consistency among a group of items combined to form a single scale. Cronbach’s alpha was used with the data collected for this dissertation to test the internal consistency (i.e., the reliability) of the ratings of the three previously published instruments (ALQ, CEV, and EPQ) included in the survey.

Table 2 shows the reliability coefficients (ranging from .78 to .89) for each of the constructs measured by the three scales. Generally, reliability coefficients of 0.70 or more are considered good (Nunnally, 1967) and if the inter-item correlations are high, then
there is evidence that the items are measuring the same underlying construct. From these results, we gain confidence that the data collected for this study are reliable.

Table 2. Construct reliability index of ALQ, CEV, and EPQ multi-item variables

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Construct</th>
<th>Number of Items</th>
<th>Cronbach’s alpha (Internal consistency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALQ</td>
<td>Transparency</td>
<td>5</td>
<td>.83</td>
</tr>
<tr>
<td></td>
<td>Moral/Ethical</td>
<td>4</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td>Balanced Processing</td>
<td>3</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>Self-awareness</td>
<td>4</td>
<td>.89</td>
</tr>
<tr>
<td>CEV</td>
<td>CEV</td>
<td>5</td>
<td>.79</td>
</tr>
<tr>
<td>EPQ</td>
<td>Idealism</td>
<td>10</td>
<td>.86</td>
</tr>
</tbody>
</table>

Relativism 10 .87

Methodology for Further Analysis/Testing of Hypotheses

In order to help inform the analysis, frequency and other descriptive statistics were generated. These statistics provided relevant data about potentially important demographic variables, as well as data about characteristics of the participating-in-charge auditors. This analysis also provided mean and standard deviation measures associated with the tested constructs of authentic leadership, ethical firm culture, and the participants’ ethical reasoning positions.

The study’s hypotheses were tested using a combination of analytical techniques. Correlation coefficients and statistical significance of relationships were calculated in order to partially test the first five hypotheses. Simple regression analysis was used to determine the significance of the relationship between the independent variables and the dependent variables (as modeled in Figure 1 in Chapter One), and the relationship
between the authentic leadership and ethical culture constructs, measured by ALQ and CEV respectively (modeled in Figure 2 in Chapter One). Multiple regression analysis was used to examine the relationship among perceptions of ethical culture and frequency of DABs, as illustrated in the model shown in Figure 2, and how the participants' ethical attitudes and characteristics might operate as co-variants, moderating their perceptions of the behaviors of the auditors.

Additionally, as detailed in Chapter Four, due to multicollinearity that existed among the four separate constructs of authentic leadership, principle component analysis (PCA) was conducted in order to provide further support for the multiple-regression models run using these constructs as independent variables. The PCA provided new measures of authentic leadership which were then applied as independent variables in the model and used to re-test the hypotheses.

**Linear Equations of the Study Models**

The first proposed model for this study showed the direct correlations being tested between the selected dependent dysfunctional auditor behaviors and the independent factors in the study: the participants' perceptions of their firms' authentic leadership components of transparency, moral/ethical perspective, balanced processing, and self-awareness; the participants' perceptions of firm ethical culture; the participants' own ethical reasoning positions (or orientations); and the participants' selected demographic information and other personal characteristics. This model would be expressed in linear equation form as follows:

\[
FDAB = B_0 + B_1ALTR + B_2ALME + B_3ALME + B_4ALBP + B_5AFEC + B_6ALSA \\
+ B_6ICERP + B_7ICAC
\]
Where:

FDAB = frequency of dysfunctional audit behaviors

ALTR = audit firm authentic leadership measure of transparency

ALME = audit firm authentic leadership measure of moral/ethical

ALBP = audit firm authentic leadership measure of balanced processing

ALSA = audit firm authentic leadership measure of self-awareness

AFEC = audit firm ethical climate

ICERP = in-charge auditors’ ethical reasoning positions (orientations)

ICAC = in-charge auditors’ characteristics

The second proposed model was developed to explore three separate hypotheses. The first hypothesis, $H_05$, in the model suggests that there could be a relationship between the participants’ perceptions of authentic leadership constructs and their perceptions of ethical firm cultures. The other two hypotheses in the model were designed to investigate the moderating effect that either (1) the participants’ ethical position, or (2) the participants’ demographic information and other personal characteristics might have on the relationship between the auditors’ perceptions of ethical firm culture and the frequency of dysfunctional auditor behaviors. This model, represented, in simplified form, is as follows:

\[
AFEC = X_0 + X_1(ALTR) + X_2(ALME) + X_3(ALBP) + X_4(ALSA)
\]

\[
FDAB = B_0 + B_1AFEC + B_2ICERP + B_3ICAC.
\]

This expression can be rewritten as follows:

\[
FDAB = B_0 + B_1(X_0 + X_1(ALTR) + X_2(ALME) + X_3(ALBP) + X_4(ALSA)) + B_2ICERP + B_3ICAC
\]
The findings from the descriptive statistics, correlations, simple regression models, and multiple-regression are reported in Chapter Four.

Limitations of the Study's Research Design and Methodology

This final section of the chapter will detail the study's limitations. One of the primary limitations is that the observation and measurement of ethics—whether at the individual or organizational level—is difficult. As discussed earlier in this chapter, this study utilized self-reported responses and, given the sensitive nature of some of the questions and the fact that the study solicited perceptions of leaders and firm culture, answers may have been biased to reflect what the in-charge auditors wanted to occur rather than what they actually believed happened. However, to partially offset this tendency, the questions related to dysfunctional auditor behavior were worded so that the participants were answering on the basis of how another in-charge auditor at their firm might act or how frequently this behavior occurs among all in-charges at their firm, rather than answering about how often the in-charge auditor had, herself or himself, engaged in problematic behaviors.

Another limitation of the proposed study is inherent in the study's survey design. Using the survey method of data collection does not allow for probing or follow-up questions. Further, the variables investigated in this dissertation are not considered an exhaustive list of all the variables that might impact auditor behavior.

There is another limitation that needs to be acknowledged: Cross-sectional analysis was used and this method does not support conclusions regarding causality, nor does it allow for generalizability outside of the subject group. To mitigate this latter limitation, I distributed the instrument to a wide sub-set of the CPA firm community—to
in-charge auditors in Big Four, other international, regional, and large local firms—in order to generate a wide and diverse sample of the auditor population.

Yet another limitation has already been noted, but it bears repeating in a section about the study's limitations: The method of data collection involved sending out an email with a link to the survey to a variety of sources who then forwarded the email on to others. As a result, I am unable to ascertain the exact number of auditors who received the survey and am therefore unable to present a response rate. Failure to provide a response rate has limitations regarding the generalizability of the study's findings as non-response bias is unknown. However, this is but one type of bias in sampling for academic research. Sample bias can, according to Blair and Zinkman (2006), be caused in three ways. Coverage bias occurs if the sample is not representative of the all segments of the population, and selection bias occurs if certain segments are given significantly higher or lower chances of selection. As detailed in Chapter Four, the participants were from 26 different states and represented all firm-types (in proportion to the expected population) that perform the vast majority of audits in the United States. As such, coverage and selection bias appear to be, at worst, minimal, in this study.

There is, however, the potential for another sort of bias in this study. I am a former auditor and an accounting and auditing educator. I still have close ties to the auditing profession; in fact, I instruct for one of the Big Four accounting firms in their new hire and in-charge auditor training programs. As such, researcher bias could be considered a limitation of this study. The data collected, however, were analyzed and assessed using well established statistical methodologies. This use of statistical analysis can legitimately be seen as a distancing device that minimized the likelihood of research
bias in the study. Still, some of the participants in the study were known by me and that relationship could potentially bias their responses. I believe that this effect was minimized, if not completely mitigated, by the anonymous nature of the data collection process. The research subjects knew that I would not be able to link particular responses with particular respondents and would therefore be unable to link any specific answers to specific individuals.

A final limitation is that the study assumes that prior research regarding leadership and its relationship to ethical culture is accurate. In the second model, one hypothesis assumes that different authentic leadership levels will be found in different ethical work cultures; the literature suggests that this is because of the impact that leaders have on organizational culture and, therefore, ethical culture. If this supposition is not true, the research based upon it will also be flawed. If it is correct, it provides information pertaining to the antecedents of DAB, but not its consequences.

Conclusion

This chapter has presented basic information about the design, methodology and limitations of the study for this dissertation. In-charge auditors were anonymously surveyed primarily in order to gather data about their perceptions of several different constructs. The means used to measure these various constructs and the means that were taken to ensure the anonymity of the sample were discussed. The chapter also presented information regarding the internal consistency of the previously published scales used in the survey and then reviewed the methodology that was employed in data analysis. The final section of the chapter acknowledged the study's limitations. The findings of the study are presented next in Chapter Four.
CHAPTER FOUR

FINDINGS

This study was conducted to determine the relationships between measures of perceived authenticity in leadership, ethical firm culture, and dysfunctional audit behavior. Further, it examined the effect that the study's participants' ethical reasoning position and selected demographic characteristics might have on these relationships. In this chapter, the study's results will be discussed. The first section describes the sample participants and provides frequencies and other descriptive statistics about these participants. The second section reports further descriptive statistics to answer the first of two basic research questions that drove the study. The final section reports the results of analysis designed to test the hypotheses developed from the second research question including correlations (Pearson's r) between and among variables as well as results from simple and multiple-regression analyses.

Sample Demographics

Respondents to this study's survey instrument were in-charge auditors working for public accounting firms. Table 3 provides a summary of selected demographic data provided by these auditors. The table displays the actual number of responses for individual categories and the percent of responses for each individual category. Typically, both a percent and a valid percent would be presented in a table like Table 3. The percent figure represents the number of respondents who marked a particular category divided by all respondents for that category, whereas the valid percent measure adjusts for missing responses. Since there were no missing responses to any of the demographic questions in this study, the percent and valid percent figures are identical. Consequently, no valid percent figures are presented in Table 3.
Table 3. Demographic Characteristics of Participants (N = 120)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPA Firm Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big Four</td>
<td>70</td>
<td>58.3</td>
</tr>
<tr>
<td>Other International / National</td>
<td>23</td>
<td>19.2</td>
</tr>
<tr>
<td>Regional</td>
<td>27</td>
<td>22.5</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>44</td>
<td>36.7</td>
</tr>
<tr>
<td>Female</td>
<td>76</td>
<td>63.3</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-25</td>
<td>38</td>
<td>31.7</td>
</tr>
<tr>
<td>26-30</td>
<td>62</td>
<td>51.7</td>
</tr>
<tr>
<td>31+</td>
<td>12</td>
<td>10.0</td>
</tr>
<tr>
<td>Years in Public Accounting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>.8</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>15.8</td>
</tr>
<tr>
<td>3</td>
<td>61</td>
<td>50.8</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>18.3</td>
</tr>
<tr>
<td>5+</td>
<td>17</td>
<td>14.2</td>
</tr>
<tr>
<td>Plan to remain in auditing for career</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>40</td>
<td>33.3</td>
</tr>
<tr>
<td>Maybe</td>
<td>56</td>
<td>46.7</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>20.0</td>
</tr>
</tbody>
</table>
As Table 3 indicates, of the 120 participants in the study, the majority (58.3 percent) work for one of the Big Four firms, and the remainder work for other international/national firms and regional firms (19.2 percent and 22.5 percent respectively). As expected, none of the respondents work for local firms which primarily focus on tax and other advisory services and rarely engage in audit services.

Age did not prove to be a significant or surprising factor in the study as 83.4 percent are aged 30 or younger. Given that this study gathered data from in-charge auditors, the ages reported were as expected. Many auditors enter the profession directly from the university and, as indicated in Table 3, have worked as auditors for less than five years (85.8 percent); in fact, a majority of the respondents, i.e., 50.8 percent, have worked in public accounting for only three years. This time in the profession is consistent with the in-charge auditor position. Generally, auditors advance from staff auditor to in-charge after two years and are promoted to manager after five or six years in the profession.

Most (63.3 percent) of the respondents were female and this percentage is representative of the current auditing profession population. According to the Clarion-Ledger, in 2006, women made up more than 60 percent of all accountants and auditors in the United States (accountingweb.com, 2006). The AICPA issued a report in 2004, based on an empirical study conducted by the Institute, indicating that the percentage of females hired into the public accounting profession had increased to 56 percent from 49 percent in 1999 (AICPA, 2004). As noted in the previous paragraph, over 50 percent of this dissertation’s sample had worked in the profession for less than three years—thus most participants were hired after 2004. The AICPA’s 2004 report further indicated that
women represented 54 percent of all in-charges (or supervisors) and 59 percent of staff accountants at U.S. firms in 2004.

The AICPA (2008) conducted another study in 2008 which reported the gender demographics of new hires by CPA firms from 2000 through 2007. More females were hired by CPA firms than males in all years under review, ranging from a high of 61 percent female (39 percent male) in 2002 to a low of 52 percent female (48 percent male) in 2007. This data supports the suggestion that the sample for this study was likely representative of the gender distribution of the in-charge auditor population in the United States at the time of the study.

The data about the participants' commitment to the auditing profession indicate that 80 percent were either committed to remaining in the profession for their careers or were undecided. The largest group of participants (46.7 percent) was undecided while 20 percent indicated that they plan to leave the profession at some point during their career.

The participants received most of their education in twenty-six different states, providing geographic diversity in the sample. In reporting information about their ethics-educational background, 50 percent of the 120 respondents indicated that they had taken two or more business ethics courses and more than 40 percent had taken two or more non-business ethics courses. Seventy-five (62.5 percent) were CPAs; all other certifications reported (e.g., Certified Management Accountant; Certified Fraud Examiner) were held by less than 2 percent of the sample.

It should be noted that because none of the studies reviewed for this dissertation used in-charge auditors exclusively for their sample, comparison of this study's participant pool to prior studies was not possible. One study, however, conducted by
Coram, Glavovi, Ng, and Woodliff (2008), asked partners at CPA firms to distribute their survey to professionals in their firms with five or less years of experience. Their respondents were 67 percent male (33 percent female), however, the authors do not discuss the impact that gender had on their findings or if their sample was representative of the auditing population. Further, their method of distribution—selection of participants by partners, who, according to the AICPA (2004) were 81 percent male in 2004—may have biased their sample. No other demographic information was provided for their participants.

Data Analysis Results for Research Question 1

This study explored whether relationships exist among perceptions of authentic leadership, ethical firm culture, and selected dysfunctional audit behavior. The first of the two research questions that drove this dissertation’s study focused on measures of these variables. Specifically, Research Question 1 asked: What are the perceptions that in-charge auditors have about their firms’ ethical climate; about the level of authentic leadership exhibited within the firm; and about the frequency of selected dysfunctional audit behaviors by most in-charge auditors, specifically relating to under-reporting of time and premature sign-off of audit procedures; and what are the ethical attitudes of these in-charge auditors? The results generated by the participants’ replies to the survey’s response items provided answers to this question; these results will be reported in this section.

Table E.1 in Appendix E defines the abbreviations used in this dissertation’s table presentations of the independent variables (other than auditor characteristics discussed previously) and Table E.2 provides a summary of the abbreviations used to represent the
response items used as dependent variables and Table E.3 provides definitions of the
dysfunctional auditor behaviors that were included in the response items.

Table F.1 contains the mean and standard deviation (SD) for both the independent
variables and the dependent variables of the study. All of these items were measured on
a 5-point Likert-type scale with the exception of ethical firm culture (CEV) which was
measured on a 7-point Likert-type scale. Because the scales were bounded by different
measures, for ease of comparison, the means have been converted to percentages in the
final column of the table (e.g., the mean score for Transparency is 4.18 out of a possible
5.00. The mean as a percentage would therefore be 4.18/5.00 or 83.6 percent).

The standard deviations (SD) were bounded between .66 and .95 for all items
(both independent and dependent variables' response items) except PMSO-Vignette
(1.06), suggesting overall coherence in the responses. The item with the greatest
consensus is idealism, with a SD of .66, suggesting that similar levels of idealism were
found in most of the participants in the study.

In-charge Auditors' Perceptions of Authentic Leadership

The four primary independent variables for this study were the individual
constructs of authentic leadership theory (ALT): transparency, moral/ethical perspective,
balanced processing, and self-awareness. The mean scores for all participants' perception
of these individual measures of ALT are presented in Table F.1 in order of descending
strength of the mean measure. As discussed in the next section, one of the chief
emphases of this study was to determine the effect that perceptions of leaders'
authenticity—especially as it relates to their moral and ethical perspective—have on
perceptions of the firm's ethical climate and on behavior of subordinates. As indicated in
this table, the moral and ethical perspective of the CPA firm leadership is believed to be high (i.e., mean of 4.18 out of 5.00) and all of the other authentic leadership measures were well above the median measure of 3.0, indicating that the participants in this study, on average, perceived their firm's leaders to exhibit authentic leader qualities. Looking at the mean in percentage form indicates that if the in-charge auditors were grading their firms' leaders on a 100 point scale, each of the four constructs of ALT would have received passing marks: transparency (83.6), moral/ethical (77.6), balanced processing (74), and self-awareness (70.8).

**Corporate Ethical Values**

Table F.1 also reports that the mean score for the measurement of ethical firm culture (CEV) among all participants was 6.20 (on a seven-point Likert type scale). Continuing the grading analogy, the mean in percentage form indicates that the in-charge auditors assigned their firms' ethical cultures an average score of 88.57. These measures suggest that the participants perceive their firms' cultures to be highly ethical.

**In-charge Auditors' Ethical Positions**

Two independent variables reflect the auditor's identified ethical position (orientation) using Forsyth's (1980) Ethical Position Questionnaire scale: idealism and relativism. As discussed in Chapter Two, idealism is a measure of a person's consideration of others in ethical decision making, whereas relativism provides a measure of the individual's concern for moral rules.

As show in Table F.1, the mean idealism score for the participants was 3.87 (on a five-point Likert type scale), compared to the mean relativism score of 2.55, indicating that the participants were more idealistic than relativistic as it is defined for this study.
Again, looking at these means on a 100 point scale, the participants scored an average of 77.4 in idealism and 51.0 in relativism. The higher idealism and lower relativism means could be due to a number of factors, including the nature of people who enter the auditing profession.

Forsyth (1980), as discussed in Chapter Two, further classified his subjects on the basis of idealism and relativism scores as holders of one of four ethical positions: situationists, absolutists, subjectivists, or exceptionists. However, he never attempted to measure these constructs—primarily because they were defined based on high and low measures of idealism and relativism and these measures were not defined. Douglas, et al. (2001) measured the four ethical positions using median splits of the idealism and relativism scores to generate dummy variables for the four ethical positions. Those who scored above (below) the median were classified as scoring high (low) on that scale.

Using this same methodology (dummy variables created out of the participants' idealism and relativism scores), this study classified the participants in this study according to these constructs. The median idealism score of 3.95 and median relativism score of 2.5 (eight subjects had the median score) were used to create dummy variables for the four ethical positions. None of the participants had a mean idealism score equal to the median, however, eight participants had a mean score equal to the median score (2.5) for relativism. These eight were first excluded from the analysis and then added back by changing the computation of the dummy variables to include these cases. There was no significant change in the results on the basis of inclusion or exclusion. Table 4 summarizes the frequencies and percentages of each of the orientations (including the median score cases) for the 120 participants.
Table 4. Ethical Position of Participants

<table>
<thead>
<tr>
<th>Ethical Position</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situationists</td>
<td>32</td>
<td>26.67</td>
</tr>
<tr>
<td>Absolutists</td>
<td>28</td>
<td>23.33</td>
</tr>
<tr>
<td>Subjectivists</td>
<td>35</td>
<td>29.17</td>
</tr>
<tr>
<td>Exceptionists</td>
<td>25</td>
<td>20.83</td>
</tr>
</tbody>
</table>

When the methodology that Douglas, et al. (2001) developed was employed in this study, the participants were fairly evenly distributed, ranging from 25 exceptionists, representing 20.83 percent of the sample, to 35 subjectivists, representing 29.17 percent. These findings were, however, likely skewed by the high median score for idealism, and lower than average median for relativism. As a result, these classifications will not be used for further analysis and the mean scores for idealism and relativism will be used in testing ethical orientation's influence on audit behavior.

Dysfunctional Auditor Behaviors

The dependent variables used in this study were evenly divided into three types, those related to under-reporting of time worked on an audit engagement; those related to premature sign-off of audit procedures; and other dysfunctional behaviors. Each variable is discussed in this section, along with relevant frequencies and other statistics. The actual response items associated with each of these dysfunctional behaviors are presented in Appendix E (Table E.2).

Under-Reporting of Time Worked on an Engagement

Under-reporting of time (URT) has been researched in depth (see discussion of this research in Chapter Two) and for this study, three URT response items were included in the survey. The first, URT-InCharge, is associated with the in-charge auditors'
perceptions of how often in-charge auditors under-report time. The second, URT-Staff, asked about the frequency of in-charge auditors allowing audit staff to under-report time. The final response item, URT-Vignette, was associated with a vignette created to ask how often the participants thought a fictional in-charge auditor would under-report time given the facts of the vignette.

Table 5. Frequencies of under-reporting of time variables (N = 120)

<table>
<thead>
<tr>
<th></th>
<th>URT-InCharge</th>
<th>URT-Staff</th>
<th>URT-Vignette</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
<td>n</td>
</tr>
<tr>
<td>1=Never</td>
<td>2</td>
<td>1.7</td>
<td>7</td>
</tr>
<tr>
<td>2=Rarely</td>
<td>24</td>
<td>20.0</td>
<td>45</td>
</tr>
<tr>
<td>3=Sometimes</td>
<td>49</td>
<td>40.8</td>
<td>45</td>
</tr>
<tr>
<td>4=Often</td>
<td>33</td>
<td>27.5</td>
<td>18</td>
</tr>
<tr>
<td>5=Nearly always</td>
<td>12</td>
<td>10.0</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 5 provides the actual and percentage response rates to the dependent variables associated with URT. As noted earlier, URT-InCharge asks about frequency of under-reporting of chargeable time by in-charge auditors. From this frequency distribution, we determine that 78.3 percent (40.8 + 27.5 + 10.0) of the participants believed that typical in-charge auditors will under-report time worked on an audit engagement at least sometimes, and 10 percent thought it was practiced nearly always. Frequencies shown for URT-Staff tell us that 37.5 percent of the participants thought their peers allow staff to under-report time sometimes and 56.7 percent (37.5 + 15.0 + 4.2) believed this happens sometimes or more. These numbers confirm prior findings (e.g., Margheim and Pany, 1986; Kelley and Margheim, 2002) that URT has been and continues to be an issue for the audit profession.
In order to validate the responses to URT-InCharge, which suggested that most in-charges do under-report time at least sometimes, a vignette was created as detailed in Chapter Three. The vignette contained one response item (URT-Vignette) asking about the frequency of an auditor under-reporting time on an inventory audit when it became obvious that the budgeted time would be insufficient and that performance evaluation would be associated with efficiency in job performance. Response rates for indirect approach to assessing the prevalence of under-reporting in a respondent’s firm were similar to the responses to the direct questions associated with under-reporting by the in-charge auditor (URT-InCharge) and the in-charge allowing his or her staff to under-report time (URT-Staff). In the scenario, 63.2 percent (24.1 + 25.8 + 3.3) of the participants indicated that the in-charge auditor would under-report time at least sometimes. This response rate is also consistent with prior studies (e.g., Lightner, et al., 1982; Margheim and Kelley, 1990). Most of these prior studies have shown time-budget pressure to have a significant influence on under-reporting time. Other studies (e.g., Shapeero, et al., 2003) have shown that when auditors believe that they will be rewarded, such as through higher performance evaluations (often given for meeting the time-budget), the firms may actually be incentivizing the in-charge auditors to under-report chargeable time.

Premature Sign-off of Audit Procedures

Response items related to premature sign-off asked the participants to indicate how often they believed auditors sign off on audit procedures—signifying that audit procedures had been performed—before the procedures are completed by the auditor. PMSO-InCharge asked about the frequency of in-charge auditors prematurely signing-off on audit work while PMSO-Staff asked how often in-charge auditors allow their staff to
do so. The final variable, PMSO-Vignette, asked the participants to indicate how often a
typical in-charge auditor would sign-off on an audit step when told by a manager (i.e., a
superior) that the in-charge auditor did not need to perform the work, even though the in-
charge believed s/he should.

Table 6. Frequencies of PMSO variables (N = 120)

<table>
<thead>
<tr>
<th></th>
<th>PMSO-InCharge</th>
<th></th>
<th>PMSO-Staff</th>
<th></th>
<th>PMSO-Vignette</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percent</td>
<td>n</td>
<td>Percent</td>
<td>n</td>
<td>Percent</td>
</tr>
<tr>
<td>1=Never</td>
<td>32</td>
<td>26.7</td>
<td>41</td>
<td>34.2</td>
<td>13</td>
<td>10.8</td>
</tr>
<tr>
<td>2=Rarely</td>
<td>64</td>
<td>53.3</td>
<td>58</td>
<td>48.3</td>
<td>29</td>
<td>24.2</td>
</tr>
<tr>
<td>3=Sometimes</td>
<td>20</td>
<td>16.7</td>
<td>17</td>
<td>14.2</td>
<td>45</td>
<td>37.5</td>
</tr>
<tr>
<td>4=Often</td>
<td>4</td>
<td>3.3</td>
<td>4</td>
<td>3.3</td>
<td>26</td>
<td>21.7</td>
</tr>
<tr>
<td>5=Nearly always</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Table 6 provides the frequencies associated with the premature sign-off (PMSO)
dependent variables. These responses seem to imply that in-charge auditors believed that
their peers engage in PMSO much less frequently than they under-report time. For
instance, only 20 percent of the participants indicated that a typical in-charge auditor at
their firm would prematurely sign-off on audit work, compared to 78.3 percent under-
reporting time worked on an audit. Further, where participants thought 56.7 percent of in-
charge would allow staff to under-report at least sometimes, only 17.5 percent thought
the same of allowing staff to prematurely sign-off.

Responses to PMSO-Vignette were not consistent with the first two response
items associated with premature sign-off. The indication of higher frequency of PMSO-
Vignette may be due to, as discussed in Chapter Three, the auditors failing to perceive the
vignette’s situation as an example of PMSO. Alternatively, it could be that the auditors thought that their peers would be more inclined to prematurely sign-off if they were following a superior’s dictate.

Other Dysfunctional Auditor Behaviors

The final set of response items related to dysfunctional auditor behavior asked the participants about behaviors such as superficially reviewing client documents (Poor Doc. Review), accepting weak client explanations (Weak Explain), reducing work below what would be considered reasonable (Reduce Work), failure to research an accounting principle when needed (Fail to Research), and shifting time to a different charge code (Charge Other Code).

Frequencies of response items for the remaining DABs are presented in Table 7. As noted in this table, over 40 percent of the participants believed that their peers would superficially review documents (Poor Doc. Review), accept weak client explanations (Weak Explain), and fail to adequately research accounting principles when their knowledge was limited (Fail to Research) at least sometimes. The remaining two dysfunctional behaviors, the reduction of work below what would be considered reasonable (Reduce Work) and shifting time to a different charge code (Charge Other Code), show the lowest instances of occurrence according to the participants. Only 20 percent thought that reduction of work below reasonable levels occurs at least sometimes, and 27.5 percent thought auditors shifting time to a different charge occurs this often. Given the differing nature of these DABs, it is not unexpected that there would be some variation in frequencies. As discussed in Chapter Five, perceptions regarding the moral or
ethical component of each of these auditor behaviors could have some influence over the responses.

Table 7. Frequencies of other dysfunctional audit behaviors (N = 120)

<table>
<thead>
<tr>
<th>poor Doc. Review</th>
<th>weak explain</th>
<th>reduce work</th>
<th>fail to research</th>
<th>charge other code</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>Percent</td>
<td>n</td>
<td>Percent</td>
<td>n</td>
</tr>
<tr>
<td>1=Never</td>
<td>19</td>
<td>15.8</td>
<td>11</td>
<td>9.2</td>
</tr>
<tr>
<td>2=Rarely</td>
<td>52</td>
<td>43.3</td>
<td>50</td>
<td>41.7</td>
</tr>
<tr>
<td>3=Sometimes</td>
<td>36</td>
<td>30.0</td>
<td>50</td>
<td>41.7</td>
</tr>
<tr>
<td>4=Often</td>
<td>13</td>
<td>10.8</td>
<td>8</td>
<td>6.7</td>
</tr>
<tr>
<td>5=Nearly always</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>.8</td>
</tr>
</tbody>
</table>

Concluding Remarks on Dysfunctional Behavior Variables

Along with the other variables for this study, the mean responses (on a 5-point Likert type scale) for each of these dysfunctional behavior variables are presented in Appendix F (Table F.1). The means were bounded by 1.87 for PMSO-Staff and 3.24 for URT-InCharge. These means suggest that auditors perceive, on average, that underreporting time was the most frequent of the surveyed in-charge auditor dysfunctional behaviors. As discussed in Chapter Two, underreporting time is often considered a necessary part of auditing and continues to be an accepted behavior—even though the profession and the firms recognize it to be a behavior that can lead to reduced audit quality.

The difference in mean score for PMSO-Vignette (2.87) and the other two PMSO means (1.97 for PMSO-InCharge, and 1.87 for PMSO-Staff) may indicate, as discussed in Chapter Three, that the auditors did not perceive this vignette to be representative of an auditor prematurely signing-off of an audit step. This consideration may be confirmed by
the standard deviation measure of responses to this one item. As noted earlier in this chapter, the standard deviations for all response items on the survey were less than 1.0, except for PMSO-Vignette. The disparity in responses to this one item may indicate there was some confusion regarding the scenario.

Results from Testing Hypotheses Developed for Research Question 2

The second research questions asked: To what extent are variations in the frequency of dysfunctional audit behaviors of in-charge auditors related to (1) in-charge auditors' perceptions about the authentic leadership within their firms; (2) auditors' perceptions about the audit firms' ethical climates; (3) the in-charge auditors' personal ethical attitudes; and (4) selected auditor characteristics (e.g., age, sex, ethics training, and commitment to auditing profession)?

Two models were created to answer this question (see Figures 1 and 2 in Chapter 1) and several null hypotheses were developed from the models. The results of testing are reported after each hypothesis and (if appropriate) each sub-hypotheses is listed in the text below.

In order to test the hypotheses, correlation and regression analyses were conducted at the .05 significance level. Hypotheses $H_01$ through $H_05$ were tested through bivariate test of correlation and the results of these tests are summarized in Table 8 and discussed in the following sub-sections. These hypotheses, along with $H_06$ and $H_07$, were also tested with regression analysis and the discussions of these results also follow.
Table 8. ALQ measures, CEV, and DAB bivariate correlation coefficients and (p values)

<table>
<thead>
<tr>
<th></th>
<th>Correlation Coefficients (p values)</th>
<th>Transparency</th>
<th>Moral/ Ethical Processing</th>
<th>Balanced Self-Awareness</th>
<th>CEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>URT-InCharge</td>
<td></td>
<td>-.30**</td>
<td>-.28**</td>
<td>-.28**</td>
<td>-.29**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
</tr>
<tr>
<td>URT-Staff</td>
<td></td>
<td>-.30**</td>
<td>-.22*</td>
<td>-.19*</td>
<td>-.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.00)</td>
<td>(.01)</td>
<td>(.04)</td>
<td>(.10)</td>
</tr>
<tr>
<td>URT-Vignette</td>
<td></td>
<td>-.23*</td>
<td>-.27**</td>
<td>-.28**</td>
<td>-.23*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.01)</td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.01)</td>
</tr>
<tr>
<td>PMSO-InCharge</td>
<td></td>
<td>-.23*</td>
<td>-.28**</td>
<td>-.18*</td>
<td>-.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.01)</td>
<td>(.00)</td>
<td>(.05)</td>
<td>(.09)</td>
</tr>
<tr>
<td>PMSO-Staff</td>
<td></td>
<td>-.18</td>
<td>-.23*</td>
<td>-.14</td>
<td>-.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.05)</td>
<td>(.01)</td>
<td>(.13)</td>
<td>(.24)</td>
</tr>
<tr>
<td>PMSO-Vignette</td>
<td></td>
<td>-.08</td>
<td>-.18*</td>
<td>-.16</td>
<td>-.17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.41)</td>
<td>(.05)</td>
<td>(.08)</td>
<td>(.07)</td>
</tr>
<tr>
<td>Poor Doc. Review</td>
<td></td>
<td>-.26**</td>
<td>-.28**</td>
<td>-.21*</td>
<td>-.25**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.01)</td>
<td>(.00)</td>
<td>(.02)</td>
<td>(.01)</td>
</tr>
<tr>
<td>Weak Explain</td>
<td></td>
<td>-.32**</td>
<td>-.44**</td>
<td>-.28**</td>
<td>-.27**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
</tr>
<tr>
<td>Reduce Work</td>
<td></td>
<td>-.39**</td>
<td>-.42**</td>
<td>-.26**</td>
<td>-.24**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.01)</td>
</tr>
<tr>
<td>Fail to Research</td>
<td></td>
<td>-.29**</td>
<td>-.38**</td>
<td>-.28**</td>
<td>-.32**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
</tr>
<tr>
<td>Charge Other Code</td>
<td></td>
<td>-.25**</td>
<td>-.25**</td>
<td>-.20*</td>
<td>-.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.01)</td>
<td>(.01)</td>
<td>(.03)</td>
<td>(.17)</td>
</tr>
<tr>
<td>CEV</td>
<td></td>
<td>.49**</td>
<td>.63**</td>
<td>.44**</td>
<td>.38**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.00)</td>
</tr>
</tbody>
</table>

Notes: ** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the .05 level (2-tailed).
Testing Hypotheses in Figure 1: $H_01$ - $H_04$

Results from Testing $H_01$

$H_01$: Authentic leadership style is not related to the frequency of dysfunctional audit behaviors.

$H_01a$: Transparency component of authentic leadership is not related to the frequency of dysfunctional audit behaviors.

$H_01b$: Moral/ethical component of authentic leadership is not related to the frequency of dysfunctional audit behaviors.

$H_01c$: Balanced processing component of authentic leadership is not related to the frequency of dysfunctional audit behaviors.

$H_01d$: Self-Awareness component of authentic leadership is not related to the frequency of dysfunctional audit behaviors.

Correlation testing $H_01$. As previously noted, results from the bivariate tests of correlation are presented in Table 8. The first null hypothesis developed for this study proposed that there is no direct relationship between the measured components of authentic leadership and the frequency of DABs. As shown in Table 8 and summarized in Table 9, however, there was a significant negative correlation (at the 95 percent or 99 percent level of confidence) between all measures of authentic leadership (transparency, moral / ethical perspective, balanced processing, and self-awareness) and the DAB variables with few exceptions. For most that do not show significance at the .01 or .05 level, correlation is significant at the 90 percent confidence level. The null hypotheses $H_01-a$ through $H_01-d$ must, therefore, be rejected. These correlation findings suggest that
as the in-charge auditors' perceptions of their leaders' authenticity increased, they also believed fewer instances of dysfunctional auditor behavior occurred.

As indicated in Table 9, the moral/ethical component of authentic leadership was found to be significantly negatively correlated to the frequency of occurrence of all of the tested dysfunctional auditor behaviors. Both transparency and balanced processing were significantly negatively correlated with all DABs except PMSO-Staff (the in-charge auditors allow their staff to prematurely sign-off) and PMSO-Vignette (the in-charge auditor signs-off on a step as directed by a manager). Self-Awareness is the authentic leadership component that was least correlated with the DABs. It failed to be significantly correlated with five of the dependent variables. These relationships were also examined through regression analysis, discussed next.

Table 9. Summary of Correlation Testing Between Measures of Authenticity and DABs

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Number of DABs where correlation is significant at the</th>
<th>Number of DABs where no significant correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.01 level</td>
<td>.05 level</td>
</tr>
<tr>
<td>Transparency</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Moral / Ethical</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Balanced Processing</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Self-awareness</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Regression testing H01. To further explore the relationship between authentic leadership and auditor behavior modeled in Figure 1 (H1), all four components of authenticity were included as independent variables in regression models using each of the DABs as dependent variables. The p-values and R-square of these regressions are shown in descending order of R-square strength in Table 10. As noted in the R-square results, the regressions explained between 6 percent and 21 percent of the variance in the
various DABs and the model was significant at the .05 level for six of the DABs (URT-InCharge, URT-Staff, URT-Vignette, PMSO-InCharge, Poor Doc. Review, and Charge Other Code); at the .01 level for three DABs (Weak Explain, Reduce Work, and Fail to Research); and not significant for PMSO-Staff and PMSO-Vignette.

The lower R-square values were, to some extent, expected. Prior research has shown that other factors, such as time budget pressure, explain most of the variation in dysfunctional auditor behaviors. This study was aimed at finding how, if at all, authentic leadership and ethical culture relate to auditor behavior. These findings suggest that perceptions of leadership have at least a minimal effect on dysfunctional behavior.

Table 10. Authentic leadership components and DABs: Results of multiple-regression

<table>
<thead>
<tr>
<th>DAB</th>
<th>R-square</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce Work</td>
<td>.21</td>
<td>.00</td>
</tr>
<tr>
<td>Weak Explain</td>
<td>.20</td>
<td>.00</td>
</tr>
<tr>
<td>Fail to Research</td>
<td>.16</td>
<td>.00</td>
</tr>
<tr>
<td>URT-InCharge</td>
<td>.11</td>
<td>.01</td>
</tr>
<tr>
<td>URT-Staff</td>
<td>.10</td>
<td>.02</td>
</tr>
<tr>
<td>URT-Vignette</td>
<td>.09</td>
<td>.02</td>
</tr>
<tr>
<td>Poor Doc. Review</td>
<td>.09</td>
<td>.03</td>
</tr>
<tr>
<td>Charge Other Code</td>
<td>.09</td>
<td>.03</td>
</tr>
<tr>
<td>PMSO-InCharge</td>
<td>.08</td>
<td>.04</td>
</tr>
<tr>
<td>PMSO-Staff</td>
<td>.06</td>
<td>.15</td>
</tr>
<tr>
<td>PMSO-Vignette</td>
<td>.06</td>
<td>.15</td>
</tr>
</tbody>
</table>

The significance levels for the regressions noted in Table 10 are for the models where all four components of authenticity were run together as independent variables.
However, when the individual components (Transparency, Moral/Ethical, Balanced Processing, SE) were examined, only one of the independent variables (Moral/Ethical) displayed statistical significance, and this variable was found to be significant in only three of the 11 regression models where all four variables were used: when the dependent variables were Weak Explain, Reduce Work, or Fail to Research. These models' coefficients are shown in Tables F.4 through F.6.

To understand why only one of the four measures of authentic leadership displayed statistical significance in these regression models, further analysis was needed. As discussed in the previous section on correlation coefficients, and highlighted in Table 8, most of the individual components of authentic leadership were negatively correlated, at a statistically significant level, with the dysfunctional behaviors used as dependent variables. In fact, only nine out of these 44 correlations were not statistically significant. In order to highlight which of the components of authentic leadership have the strongest effect on the dependent DAB variables, stepwise regressions were run. To then provide further support for the relationships indicated by the aforementioned negative correlations, principal components analysis was employed. The results of both of these additional tests are discussed next.

*Step-wise regression with authentic leadership components as independent variables and DAB as dependent.* Stepwise regression models were run using the four components of authentic leadership as the independent variables and the 11 DABs as the dependent variables. Results of these regressions are shown in Table 11.

The results of the stepwise regressions shown in Table 11 indicated that the significance level improved for each regression model when selected independent
variables were excluded. It is interesting to note that only four of the 11 DABs used as dependent variables in the regressions retained a variable other than Moral/Ethical as the independent variable. Each of these four DABs have been shown in prior research (e.g., Shafer, et al., 2001; Shapeero, 2003) to be behaviors that are given less ethical consideration than the other DABs. DABs shown by earlier work to be considered more ethically-oriented in decision-making are premature sign-off and related types of behavior such as superficial review of documents, accepting weak client explanations, reducing work below what would be considered reasonable, and failure to research accounting principles when needed.

Table 11. Stepwise regressions between measures of authentic leadership and DAB

<table>
<thead>
<tr>
<th>DAB</th>
<th>Retained predictor variable</th>
<th>R-square</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>URT-InCharge</td>
<td>Transparency</td>
<td>.09</td>
<td>.00</td>
</tr>
<tr>
<td>URT-Staff</td>
<td>Transparency</td>
<td>.09</td>
<td>.00</td>
</tr>
<tr>
<td>URT-Vignette</td>
<td>Balanced Processing</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>PMSO-InCharge</td>
<td>Moral/Ethical</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>PMSO-Staff</td>
<td>Moral/Ethical</td>
<td>.05</td>
<td>.01</td>
</tr>
<tr>
<td>PMSO-Vignette</td>
<td>Moral/Ethical</td>
<td>.03</td>
<td>.05</td>
</tr>
<tr>
<td>Poor Doc. Review</td>
<td>Moral/Ethical</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>Weak Explain</td>
<td>Moral/Ethical</td>
<td>.20</td>
<td>.00</td>
</tr>
<tr>
<td>Reduce Work</td>
<td>Moral/Ethical</td>
<td>.18</td>
<td>.00</td>
</tr>
<tr>
<td>Fail to Research</td>
<td>Moral/Ethical</td>
<td>.15</td>
<td>.00</td>
</tr>
<tr>
<td>Charge Other Code</td>
<td>Transparency</td>
<td>.06</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note: a. Only one of the four components of authentic leadership (Transparency, Moral/Ethical, Balanced Processing, Self-Awareness) was retained in each of the stepwise regressions. The remaining three components (variables) were excluded from the analysis.
As noted, when stepwise regression was run on each of the more ethically-oriented dependent variables (PMSO-InCharge, PMSO-Staff, PMSO-Vignette, Poor Doc. Review, Weak Explain, Reduce Work, and Fail to Research) with the four constructs of authentic leadership (Transparency, Moral/Ethical, Balanced Processing, and Self-Awareness) as independent variables, the only retained predictor variable was Moral/Ethical representing the perceptions of the moral or ethical perspective of the leaders. Another interesting finding is that Self-Awareness is never retained in these regressions.

### Table 12. Correlations among authentic leadership components (p-values)

<table>
<thead>
<tr>
<th>Translparency</th>
<th>Moral/Ethical</th>
<th>Balanced Processing</th>
<th>Self Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moral/Ethical</td>
<td>.71**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Balanced Processing</td>
<td>.71**</td>
<td>.62**</td>
<td>1</td>
</tr>
<tr>
<td>Self Awareness</td>
<td>.73**</td>
<td>.61**</td>
<td>.78**</td>
</tr>
</tbody>
</table>

Notes: ** Correlation is significant at the 0.01 level (2-tailed).  
* Correlation is significant at the .05 level (2-tailed).

Principal components analysis of authentic leadership components. To provide further support of the relationships existing between the four constructs of authenticity and auditors' dysfunctional behavior, principal components analysis (PCA) was conducted on the authenticity constructs and the resulting variables used to run further regression analysis. The four separate components of authentic leadership were highly correlated, as illustrated in Table 12 (correlations range from .61 to .78, all significant at
the .01 level). As such, the four correlated factors were first reduced to two principal and perfectly uncorrelated (orthogonal) components, and then further reduced for analysis to just one component. See Table 13 and Figure 3 for results of PCA.

Table 13. Variance in ALQ measures explained through principal components analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial eigenvalues</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>1</td>
<td>3.08</td>
</tr>
<tr>
<td>2</td>
<td>.44</td>
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<tr>
<td>3</td>
<td>.26</td>
</tr>
<tr>
<td>4</td>
<td>.22</td>
</tr>
</tbody>
</table>

Figure 3. Scree plot of principal component analysis of ALQ factors

In order to determine the number of factors to extract, there are two primary theories. Cattrell (1966) suggests finding, on a scree plot, where the smooth decrease in eigenvalues level off to the right of the plot and to exclude remaining factors. As shown in Figure 3, this occurs after the second factor is extracted, thus two PCA factors were used as independent variables in the regression analyses. As indicated in Table 13, these
two factors account for over 88 percent of the variance in the correlation matrix. Table 14 provides the results of the regression analysis using two principal components of authentic leadership. Kaiser (1960) suggests using only those factors with eigenvalue greater than 1.0 to determine the retained variables for analysis. Per Table 13, only the first component has an eigenvalue greater than 1.0 and accounts for over 77 percent of the variance of 4.00. The analysis was run a final time, using this single principal component. Results of these regressions are shown in Table 15.

Table 14. Regression with two authentic leadership principal component factors as independent variables

<table>
<thead>
<tr>
<th>DAB</th>
<th>R-square</th>
<th>p-value of model</th>
<th>p-value of Factor 1</th>
<th>p-value of Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>URT-InCharge</td>
<td>.11</td>
<td>.00</td>
<td>.01</td>
<td>.02</td>
</tr>
<tr>
<td>URT-Staff</td>
<td>.07</td>
<td>.01</td>
<td>.16</td>
<td>.01</td>
</tr>
<tr>
<td>URT-Vignette</td>
<td>.08</td>
<td>.01</td>
<td>.02</td>
<td>.03</td>
</tr>
<tr>
<td>PMSO-InCharge</td>
<td>.08</td>
<td>.01</td>
<td>.31</td>
<td>.00</td>
</tr>
<tr>
<td>PMSO-Staff</td>
<td>.05</td>
<td>.04</td>
<td>.56</td>
<td>.01</td>
</tr>
<tr>
<td>PMSO-Vignette</td>
<td>.03</td>
<td>.20</td>
<td>.20</td>
<td>.21</td>
</tr>
<tr>
<td>Poor Doc. Review</td>
<td>.09</td>
<td>.01</td>
<td>.05</td>
<td>.01</td>
</tr>
<tr>
<td>Weak Explain</td>
<td>.19</td>
<td>.00</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>Reduce Work</td>
<td>.20</td>
<td>.00</td>
<td>.10</td>
<td>.00</td>
</tr>
<tr>
<td>Fail to Research</td>
<td>.14</td>
<td>.00</td>
<td>.02</td>
<td>.00</td>
</tr>
<tr>
<td>Charge Other Code</td>
<td>.07</td>
<td>.01</td>
<td>.26</td>
<td>.01</td>
</tr>
</tbody>
</table>

As shown in Table 14, the regression models' R-square values and statistical significances were mostly unchanged from the models run using multiple-regression with the four original measures of authentic leadership. This confirms that, while the
individual components were—for the majority of cases—not statistically significant in the multiple-regression models, when two principal composites of these factors were created, the factors gained significance.

Table 15. Regression using one ALQ principal component as independent variable

| DAB            | R-square | p-value of model and Factor 1
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>URT-InCharge</td>
<td>.11</td>
<td>.00</td>
</tr>
<tr>
<td>URT-Staff</td>
<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>URT-Vignette</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>PMSO-InCharge</td>
<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>PMSO-Staff</td>
<td>.03</td>
<td>.04</td>
</tr>
<tr>
<td>PMSO-Vignette</td>
<td>.03</td>
<td>.07</td>
</tr>
<tr>
<td>Poor Doc. Review</td>
<td>.08</td>
<td>.00</td>
</tr>
<tr>
<td>Weak Explain</td>
<td>.14</td>
<td>.00</td>
</tr>
<tr>
<td>Reduce Work</td>
<td>.14</td>
<td>.00</td>
</tr>
<tr>
<td>Fail to Research</td>
<td>.13</td>
<td>.00</td>
</tr>
<tr>
<td>Charge Other Code</td>
<td>.06</td>
<td>.01</td>
</tr>
</tbody>
</table>

Using eigenvalues greater than 1.0 to extract principal components, the regression models were run again using a single principal component. Results of these regressions are reported in Table 15. As seen in this table, the single component that accounted for over 77 percent of the variance in the ALQ components' correlation matrix, when retained as a predictor variable, is statistically significant at the $p = .05$ level for all but one regression model. The one model that fails to be significant at this level is when PMSO-Vignette is the dependent variable. As discussed earlier in this chapter, it is
possible that participants did not view the vignette that resulted in this response item to be illustrating a dysfunctional behavior.

Concluding remarks on regressions for $H_0.1$. In sum, several different regression models were run using the components of authentic leadership as independent variables with the 11 DABs as dependent variables. While each of the analytic techniques (multiple-regression using individual components of authenticity as independent variables; stepwise regression; multiple-regression using two principal components as independent variables; and simple regression with a principal component independent variable) provided somewhat different results, the majority of these regressions implied that there is a significant relationship between selected measures of authenticity and dysfunctional behavior of auditors. These findings are discussed further in Chapter Five.

Results from Testing $H_0.2$

$H_0.2$: Perceptions of firms' ethical cultures are not related to the frequency of dysfunctional audit behaviors.

Correlation testing $H_0.2$. Table 8 shows that there is significant negative correlation between the participants' perceptions about the ethical firm culture (CEV) and each dysfunctional behavior studied for this dissertation. The null hypothesis ($H_0.2$) must therefore be rejected, and it can be assumed that CPA firms' ethical cultures may have some influence over DAB frequency; in fact, as firms were perceived to be more ethical, auditors believed the frequency of dysfunctional behavior diminished.

Regression testing $H_0.2$. Simple regression models were run using ethical firm culture (measured by CEV) as the independent variable and the 11 DABs tested by this study as dependent variables. The significance of the models is the same as that reported
in the correlation testing, however, the regression models provided further information to interpret this data. Table 16 reports the R-square for each of these models, along with the correlation coefficient and the models' statistical significance, presented in order of magnitude of the coefficient.

Table 16. Regression Models with Ethical Firm Culture as Independent Variable

<table>
<thead>
<tr>
<th>DAB</th>
<th>R-square</th>
<th>Correlation Coefficient</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak Client Explain</td>
<td>.26</td>
<td>-.51</td>
<td>.00</td>
</tr>
<tr>
<td>Reduce Work</td>
<td>.25</td>
<td>-.50</td>
<td>.00</td>
</tr>
<tr>
<td>Fail to Research</td>
<td>.21</td>
<td>-.46</td>
<td>.00</td>
</tr>
<tr>
<td>PMSO-InCharge</td>
<td>.12</td>
<td>-.34</td>
<td>.00</td>
</tr>
<tr>
<td>PMSO-Staff</td>
<td>.09</td>
<td>-.31</td>
<td>.00</td>
</tr>
<tr>
<td>Poor Doc. Review</td>
<td>.07</td>
<td>-.26</td>
<td>.01</td>
</tr>
<tr>
<td>URT-Staff</td>
<td>.06</td>
<td>-.24</td>
<td>.01</td>
</tr>
<tr>
<td>Charge Other Code</td>
<td>.06</td>
<td>-.25</td>
<td>.01</td>
</tr>
<tr>
<td>URT-InCharge</td>
<td>.05</td>
<td>-.23</td>
<td>.01</td>
</tr>
<tr>
<td>PMSO-Vignette</td>
<td>.05</td>
<td>-.22</td>
<td>.02</td>
</tr>
<tr>
<td>URT-Vignette</td>
<td>.04</td>
<td>-.19</td>
<td>.03</td>
</tr>
</tbody>
</table>

As indicated in Table 16, three of the models have an R-square above .20, indicating that the perception of an ethical firm culture may account for at least 20 percent of the variance in (reduction in) the auditors' willingness to accept weak client explanations, to reduce work below reasonable levels, and to fail to research an accounting principle when knowledge is limited.
Testing $H_03$—Correlation Testing Only

$H_{03}$: Ethical reasoning orientation (position) of in-charge auditors is not related to frequency of dysfunctional audit behavior.

$H_{03a}$: Levels of idealism of in-charge auditor is not related to frequency of dysfunctional audit behavior.

$H_{03b}$: Levels of relativism of in-charge auditor is not related to frequency of dysfunctional audit behavior.

The null hypotheses, $H_{03a}$ and $H_{03b}$, were tested using bivariate test of correlation to determine the degree of correlation among the independent variables, the continuous variables of idealism and relativism, and the dependent DAB variables. The results of these tests are shown in the Appendix in Table F.2. None of the 11 DABs were significantly correlated with relativism. Idealism was significantly negatively correlated with PMSO-Vignette, Reduce Work, and Fail to Research at the $p=.05$ level, and with Weak Explain at the $p=.01$ level.

Due to these few significant correlations, however, the null hypothesis, $H_{03}$ must be rejected, and we conclude that there is a very minor correlation between the constructs of ethical position and dysfunctional audit behavior. Due to the limited correlations found in the data to exist between the participants’ ethical positions and frequency of DAB, regression analysis was not conducted on these relationships.

Testing $H_{04}$—Correlation Testing Only

$H_{04}$: Selected auditor characteristics are not related to frequency of dysfunctional audit behavior.
$H_04a$: The in-charge auditor’s type of firm (Big Four; non-Big Four) is not related to frequency of dysfunctional audit behavior.

$H_04b$: The sex of in-charge auditors is not related to frequency of dysfunctional audit behavior.

$H_04c$: The number of years an in-charge auditor has been in the auditing profession is not related to frequency of dysfunctional audit behavior.

$H_04d$: The age of in-charge auditors is not related to frequency of dysfunctional audit behavior.

$H_04e$: The state where in-charge auditors were educated is not related to frequency of dysfunctional audit behavior.

$H_04f$: In-charge auditors licensing as a CPA is not related to frequency of dysfunctional audit behavior.

$H_04g$: The ethical training of in-charge auditors is not related to frequency of dysfunctional audit behavior.

To test the hypotheses $H_04a$ through $H_04g$, the correlation between each of the 11 dysfunctional behaviors under review and selected auditor characteristics (firm type, age, sex, state educated, licensed as a CPA, level of college business ethics coursework, and level of college non-business ethics coursework), was tested and only six significant correlations were found in a table of 88 possible correlations. Table F.3 shows the results of these tests. We can conclude, as none of the correlations are consistent across dysfunctional behavior or auditor characteristics, that the auditors’ characteristics have minor influence on auditor behavior. However, due to the few significant correlations
that were found, the null hypothesis, $H_0.4$, must be rejected. Again, due to the limited correlations, these relationships were not subjected to regression analysis.

*Results of Testing Hypothesis in Figure 2: $H_0.5$- $H_0.7*

*Results from Testing $H_0.5*

$H_0.5$: Authentic leadership style is not related to perceptions of firm cultures as ethical.

**Correlation testing $H_0.5$.** Table 8 shows that there was significant positive correlation at the $p = .01$ level between all measures of authentic leadership and CEV, thus the null hypothesis $H_0.5$ was easily rejected. This correlation supports the literature (e.g., Schein, 2004) that suggests that perceptions of leadership will be related to perceptions of corporate culture. Authentic Leadership Theory, as discussed in Chapter Two, is a relatively new theory of leadership and the findings imply that leaders within the CPA firms were perceived to have traits of authenticity as defined by the theory, and that this perception may translate into perceptions of ethical firm cultures.

**Regressions testing $H_0.5$.** Similar to the tests examining the relationship between the components of authentic leadership and DAB, the relationship between the components of authentic leadership and CEV, modeled in the null hypothesis, $H_0.5$, was further developed through several regression analysis models. The first model ran all of the components together in a multiple regression analysis. Next, stepwise regression was run using the same model. The final two models utilized the factors derived from the PCA conducted for examining the null hypotheses, $H_0.1a$ through $H_0.1d$.

When all four components of authentic leadership measured by the ALQ (Transparency, Moral/Ethical, Balanced Processing, and Self-Awareness) were included in the first multiple-regression model as independent variables with the measure of
ethical firm culture (CEV) used as the dependent variable, the *p-value* for the model was .00 and R-square equaled .41. When stepwise regression was conducted, Transparency, Balanced Process, and Self-Awareness were excluded from the analysis and only Moral/Ethical was retained as an independent variable; significance remained at the 99 percent confidence level and R-square dropped to .39. These findings indicate that there is a significant relationship between the constructs of authenticity and ethical culture, and that the perception of the moral/ethical component of authentic leadership helps to explain 39 percent of the variation in perceptions of firm cultures as ethical.

When the two factors derived from principal components analysis of the measures of authentic leadership were utilized as independent variables, R-square equaled .39. The model’s *p-value* was .00 as was the statistical significance of both factors used as independent variables. When the one principal component model was run with CEV as dependent variable, the significance remains at the 99 percent confidence level, however R-square drops to .30.

The statistically significant impact of authentic leadership on ethical organizational culture is implied by these regression analyses, and as such, the null hypothesis, *H₀₅*, is easily rejected. These findings are discussed further in Chapter Five.

*Considering H₀₆ and H₀₇*

Figure 2 was developed in order to model the interaction or moderating effect that the participants’ own ethical position or demographic or other characteristics might have on the relationship between their perceptions of ethical firm culture and frequency of dysfunctional auditor behaviors. Regression analysis was used to estimate the extent of dependent relationships modeled in the resultant null hypotheses, *H₀₆* and *H₀₇*. Both of
these hypotheses build upon the correlations tested between ethical firm culture
(measured by CEV) and DAB (see results of testing $H_{o2}$ presented earlier in this chapter).

$H_{o6}$ examines the interaction effect of ethical reasoning orientation on the model, and
$H_{o7}$ examines the same type of effect from selected auditor characteristics. A discussion
of the testing of these models follows.

Results from Testing $H_{o6}$

$H_{o6}$: The variance in the frequency of DABs related to ethical firm cultures will not be
moderated by ethical reasoning position of the in-charge auditors.

To test the null hypothesis, $H_{o6}$, regressions were run with each of the 11 DABs
selected as dependent variables, CEV selected as the independent variable, and idealism
and relativism added as co-variants. With two minor exceptions, no significance
differences were made to the models by adding these co-variants. The exceptions were
the models with URT-InCharge (under-reporting by in-charge auditors) and Weak
Explain (accepting weak client explanations) as the dependent variables.

In the model where perceptions of ethical firm culture (CEV) was the independent
variable and the frequency of under-reporting of time by in-charge auditors (URT-
InCharge) was the dependent variable, as noted in the discussion of $H_{o2}$, there was
significance at the .05 level and R-square for this model was .05. However, when
idealism and relativism were added as co-variants in the model, significance increased to
the .01 level and R-square became .10.

When the model was run using Weak Explain as the dependent variable, minor
increases in significance were again affected by adding idealism and relativism to the
model. Significance was found in both models at the .01 level, however R-square increased from .26 to .29 when the co-variants were added.

Obviously, the variance in the frequency of DABs related to ethical firm cultures was, in these two limited models, slightly moderated by the ethical reasoning position of the in-charge auditors. As a result of these two modifications, the null hypothesis, $H_06$, was rejected. However, due to the inconsistent modification across all DABs, no inference should be made from this rejection of the null hypothesis. These findings are consistent with earlier research (e.g., Forsyth, 1980; Douglas, et al., 2001) that shows limited relation between ethical reasoning position and behavior.

**Results from Testing $H_07$**

$H_07$: The variance in the frequency of DABs related to ethical firm cultures will not be moderated by selected in-charge auditor characteristics (e.g., sex, firm type, age, ethical training experiences).

As previously indicated, $H_07$, similar to $H_06$, is associated with the modification of the model that regresses CEV on the various DABs, however, in this model the co-variants were auditor characteristics. The co-variants tested in these models included the in-charge auditors': firm type; sex; years in auditing profession; age; state where received higher education; CPA license status; college business ethics course experience; and college non-business ethics course experience.

These characteristics were examined for correlation with each of the 11 DABs in testing the null hypothesis, $H_04$, and limited correlations were found. Using regression, the impact that auditor characteristics had in modifying the relationship between perceptions of ethical firm culture (CEV) and frequency of dysfunctional behavior of
auditors was tested. Although there were limited cases of improved significance of the relationship by modifying the model with the auditors' characteristics, there was no consistency in the results. For instance, while the auditors' sex and licensing as a CPA improved the model for the regression of CEV on URT-InCharge ($p$ value changed from .01 to .00, and R-square moved from .05 to .20), sex had no effect on any other model and CPA only slightly modified one other model (when URT-Vignette was the dependent variable).

Once again, due to the limited findings of modification by selected auditor characteristics, the null hypothesis, $H_07$, is rejected. However, because of the inconsistency in the findings, no assumptions should be made regarding the impact of auditor characteristics on the relationship between ethical firm culture and auditor behavior.

Conclusion

The data collected for this study revealed several statistically significant findings and provided support for the study's theorized relationships. When these theorized relationships were translated into null hypotheses, the null hypotheses were rejected. The chapter began with a review and discussion of the sample participants followed by details of the frequency of response items and other descriptive statistics to help inform the analysis and provide answers to Research Question 1. The results of hypotheses testing were provided to answer Research Question 2 and to support the proposed models that were discussed and modeled in Chapter 1 as Figures 1 and 2. These models illustrated the hypothesized effects of perceptions of authentic leadership, perceptions of ethical firm cultures, individual ethical position (orientation), and selected sample demographic
information on the frequency of dysfunctional auditor behavior. The data analysis supports the existence of the relationships modeled in these figures. Consequently, Figures 4 and 5, presented next, repeat the models from Chapter 1, illustrating that the null hypotheses related to the modeled effects were rejected.

To summarize, this chapter provided a presentation of the survey data and results of analysis that support the relationships theorized in this study. Specifically, and perhaps most importantly, the findings suggest that there is an inverted relationship between subordinate perceptions of selected leader qualities (transparency, moral/ethical perspective, balanced processing, and transparency) and behavior by auditors that will impair audit quality. Further, the findings imply a direct relationship between perceptions of these same leader qualities and perceptions of the ethical culture of organizations. The findings also suggest that perceptions of ethical culture, like perceptions of authentic leadership, are also inversely related to auditors' dysfunctional behaviors—that is, those behaviors that impair audit quality. These and selected other findings presented in this chapter will be reviewed further in Chapter Five where the implications and limitations of the study also will be discussed.
Figure 4. Results of null hypotheses testing of model of authentic leadership, ethical culture, in-charge auditor’s ethical reasoning, and in-charge auditor characteristics relating to in-charge auditors’ dysfunctional audit behaviors.
Figure 5. Results of null hypotheses testing of integrated model of authentic leadership, ethical culture and dysfunctional audit behaviors.

* Null hypotheses rejected by data analysis
CHAPTER FIVE
DISCUSSION OF FINDINGS AND CONCLUSIONS

The purpose of this study was to explore the relationships that might exist between (a) perceptions of levels of authenticity in auditing firms' leadership, (b) perceptions of the ethical organizational culture within these firms, (c) the individual auditors' own ethical reasoning positions, i.e., orientations, and (d) perceptions of the frequency of dysfunctional auditor behavior occurrence. While past research, summarized in Chapter Two, has focused on each of these issues separately, no empirical research to date had examined the relationships among the constructs of authenticity, ethical organizational culture of audit firms, auditors' ethical positions, and dysfunctional auditor behavior. This dissertation attempted to fill this gap while also adding to the growing body of Authentic Leadership Theory (ALT) literature by answering the study's two primary research questions, repeated below:

Research Question 1: What are the perceptions that in-charge auditors have about their firms' ethical culture; about the level of authentic leadership exhibited within the firm; and about the frequency of selected dysfunctional audit behaviors by most in-charge auditors, specifically relating to under-reporting of time and other audit quality reduction acts such as premature sign-off of audit procedures; and what are the ethical attitudes of these in-charge auditors?

Research Question 2: To what extent are variations in the frequency of dysfunctional audit behaviors of in-charge auditors related to (1) in-charge auditors' perceptions about the authentic leadership within their firms; (2) auditors' perceptions about the audit firms' ethical cultures; (3) the in-charge auditors' personal ethical
attitudes; and (4) selected auditor characteristics (e.g., age, sex, ethics training, and commitment to auditing profession)?

Answering Research Question 1 involved measuring in-charge auditors’ perceptions regarding authentic leadership, ethical firm culture, and frequency of dysfunctional auditor behavior in their firms, as well as soliciting information about the participants, including their own ethical reasoning position and selected demographic data and other characteristics. Answering Research Question 2 entailed exploring relationships that existed among the data collected to answer Research Question 1.

This chapter begins by providing a brief review of the study’s methodology, described in much greater detail in Chapter Three, and a summary of the study’s key findings presented in Chapter Four. The next section will consider implications for policy and practice followed by a section noting suggestions for future research. The final section of the chapter will conclude the dissertation by examining its relevance to the current state of the auditing profession and to the development of theory about authentic leadership in the Leadership Studies field.

Methodology and Findings of the Study

A Brief Review of the Study’s Methodology

This study, as discussed fully in Chapter Three, used a survey methodology to gather data from in-charge auditors at CPA firms. The data were used to answer the study’s two overarching research questions repeated in the introduction to this chapter.

Previously published and validated scales were used to design portions of the survey instrument employed in this study. To assess the auditors’ perceptions of authenticity of leaders within the firms, the Authentic Leadership Questionnaire (ALQ),
developed by Avolio, et al. (2005) was used. To determine the participants' assessment of their corporate ethical cultures, the study employed the Corporate Ethical Values (CEV) scale created by Hunt, et al. (1989). Individual ethical positions were identified during data analysis, using responses to items in Forsyth's (1980) Ethical Position Questionnaire (EPQ). Questions were developed, using prior research as a guide, and included in the survey to gather the participants' perceptions of frequency of selected dysfunctional behaviors of in-charge auditors. Finally, selected demographic and other participant characteristic data were collected via the survey instrument.

In-charge auditors were chosen as the target sample for this study because they have typically been with firms between two and five years, a period long enough to have knowledge necessary for answering the survey's response items. Responses were submitted anonymously through the SurveyMonkey website, downloaded into SPSS statistical software, and analyzed primarily using simple and multiple-regression.

Discussion of the Study's Primary Findings

Chapter Four presented the results of analyses of the in-charge auditors' responses. Seven hypotheses and 17 sub-hypotheses were created and tested according to the criteria set forth in Chapter Three. This study produced a number of seemingly important findings for the auditing profession as well as the academic fields of auditing and leadership studies. While all of the null hypotheses proposed for the study were rejected, implying that relationships between the study's variables do exist, the three selected findings discussed in this section were much more robust than the others; they also address areas that are under-researched. In fact, two of the findings related to authentic leadership have not been previously researched or reported on in any form.
Authentic Leadership and Auditor Behavior

One of the most seemingly important findings of this dissertation is that in-charge auditors’ perceptions of audit firm leadership as authentic appear to have a statistically significant negative relationship with the frequency of dysfunctional auditor behaviors. Results of simple regression and bivariate tests of correlations indicated that as the participants perceived their leadership to be more transparent, more moral or ethical, more balanced in the processing of information, and more self-aware, they also perceived the frequency of every dysfunctional behavior studied in this dissertation to diminish.

Results of more sophisticated analyses (e.g., multiple-regression, principal components analysis) provided further support for the relationships that were suggested by correlation testing and simple regression models. These more complex analyses suggested that, while the moral and ethical component had the strongest influence over auditor behavior, all of the other constructs of authenticity (transparency, balanced processing, and self-awareness) were also influential. As in-charge auditors perceived that these qualities of authentic leadership were exhibited by their firms’ leaders, either individually or in conjunction with one another, they perceived the frequency of every dysfunctional behavior included in this study to be reduced.

Authentic Leadership and Ethical Firm Culture

The findings presented in Chapter Four further suggest that as auditing firm leaders are perceived to be more authentic, auditing firm cultures also are perceived to be more ethical. Results of correlations showed that there is statistically significant positive correlation between each component of authentic leadership, as defined for this study, and ethical firm culture. Also, the analyses suggest that all four constructs of authentic
leadership, whether taken individually or in combination, have influence over the employee’s perception of the ethical content of a firm’s organizational culture.

Ethical Firm Culture and Auditor Behavior

Next, the study’s findings indicated that, just as perceptions of ethical firm leadership were negatively correlated with dysfunctional auditing behaviors, perceptions of ethical firm cultures also have a statistically significant negative relationship with dysfunctional auditor behavior. These findings support work of researchers such as Schein (2004) who have suggested that the underlying values and beliefs of an organization’s culture may influence the behavior of its individual members.

Primary Findings Concluded

Each of these findings provided relevant, timely, and needed information for the audit profession. The findings also lend empirical support for the utility of a relatively new theoretical construct in the Leadership Studies field, the construct of authentic leadership. The implications for policy and practice—both in auditing and in the field of Leadership Studies—of the relationships exhibited among authentic leadership, ethical culture, and auditor behavior, as well as suggestions for future research, will be discussed in the following sections.

Implications of the Study

As indicated above, this discussion of implications will focus on the two sets of findings that were highly significant and address issues that are under-discussed in the literature. These findings relate to (a) the negative relationships between in-charge auditors’ perceptions of ethical leadership and perception of the frequency of dysfunctional auditor behaviors and (b) the negative relationship between in charge-
auditors' perceptions of ethical firm culture and perceptions of the frequency of dysfunctional auditor behaviors. Further, implications of the implied relationship among the four constructs of authentic leadership and ethical firm culture will also be considered.

Setting the Stage for Understanding the Study's Most Significant Results

Prior research has indicated that audit firms need to consider leadership issues in order for the firms to succeed (Hermanson et al., 1985; Jiambalvo et al., 1982). Studies looking at the impact of leadership within the accounting firms on auditor behavior, however, have been limited (Kelley and Margheim, 1990; Otley and Pierce, 1996) and these studies primarily focused on the audit senior (or in-charge) as the leader and audit staff as subordinate. Hopwood (1974) introduced the idea that leaders in the audit firms can make a difference in the outcome of the audit. The study that has been discussed in this dissertation differed from previously published studies, including the work of Hopwood, because it considered, for the first time, the in-charge auditors' perceptions of leadership qualities of those who hold formal authority within the audit firms, i.e., the partners and managers.

Further, this study used the new Authentic Leadership Theory from the field of Leadership Studies as the basis for understanding the participants' perceptions of their firms' leaders (i.e., the firm's managers and partners). This study, in fact, extends the literature by determining the relationship between the perceptions of the leaders and the firm's ethical culture, and how each of these relates to the instances of dysfunctional behavior of auditors. In the process, the study also provided empirical support for the utility of what researchers have characterized as authentic forms of leadership.
Many articles have been written about a need for change within the audit profession and some, like the article by Wyatt (2003), have called for auditing firms' leaders to make significant changes in the culture of their firms. This study provides empirical support for Wyatt's call. Regulators and clients of the firms may benefit from this study indirectly because it provides empirical support for examining auditing firms' leadership practices and their organizational cultures. The most direct beneficiary of the study, however, should be the auditing firms, themselves. These firms, after looking at their leadership and organizational cultures, will perhaps be motivated to undertake improvement efforts—if what they find suggests the need for such efforts.

The study also provides support for those who laud the value of what they characterize as authentic forms of leadership. Because of the empirical support this study provides for the utility of the construct of authentic leadership, the study also may be useful for individuals in other fields who are concerned with the selection and professional development of their leaders.

Specific Implications for Policy and Practice in Auditing

Herb Rubenstein, the CEO of Growth Strategies Inc., spoke to the issue of unethical behavior in leaders in light of this new century's accounting scandals:

A significant part of the world is destroyed every day by unethical behavior. The billions of dollars of lost asset value of Enron, Anderson, WorldCom, Ardelphia, Global Crossing, MicroStrategy ....all take a huge toll on the world. Until we develop a solid theory of ethical leadership, begin to monitor leadership from an ethical perspective, and begin to define ethical leadership in positive terms as opposed to today's set of "don't do's", we can not generate the consensus and political will to demand that all leadership consist of ethical leadership" (Ethical Leadership: The State of the Art, http://growthstrategies.com/subpages/articles/069.html).
Authentic Leadership Theory could very well be the sort of "solid, ethical leadership" Rubenstein has called for. Further research and practical application of the theory are needed for confirmation, but it is encouraging to find that the participants of this study did, indeed, perceive a relationship between authentic leadership and an ethical organizational culture in accounting firms—and between each of these constructs and auditor behavior.

**Authentic Leadership and the Frequency of DAB**

This study, in fact, showed that there is significant negative correlation between perceptions of authentic leadership and dysfunctional behavior by in-charge auditors. This implies that as leaders are perceived by subordinate as being more authentic—and, primarily, more moral/ethical in their orientations—the frequency of dysfunctional auditor behavior declines. Recognizing the relationship that the perception of leader authenticity has with employee behavior should move audit firm leadership to try and understand the constructs of authenticity. Understanding these constructs (transparency; moral/ethical perspective; balanced processing of information; and self-awareness), as defined for this study (see Table E.1 in Appendix E), may allow leaders, to the extent the qualities do not already exist, to cultivate and display these characteristics.

**Authentic Leadership and Firm Ethical Culture**

Further, this study showed that there is a significant relationship between perceptions of ethical culture, on the one hand, and all of the constructs associated with the notion of authentic leadership, on the other. While the moral/ethical (ME) measure of authentic leadership is closely aligned to the measure of ethical culture used in the study, the three other constructs of authentic leadership are not so obviously linked with ethical
culture; hence, the study's finding about a relationship between authentic leadership and ethical culture appears to be more than a tautology. Thus, the findings suggest that to the extent that leaders are perceived to be moral and ethical; transparent and open; willing and able to listen to others and engaged in the processing of information—from whatever source—in a balanced manner; and aware of their own strengths and weaknesses, their followers will perceive their firms to be more ethical.

Perceptions of Firms' Ethical Cultures

As previously reported, this study found that most of the surveyed in-charge auditors believe their firms' cultures to be ethical. An examination of most CPA firms' websites will show that they have, in recent years, increased their rhetoric about the ethical conduct of auditors and the emphases their firms are placing on ethical behavior. Further evidence of commitment to ethical firm culture is found in the hotlines established by audit firms to allow for anonymous reporting of unethical auditor behavior, and the firms' increased emphases on ethical training. Recent scandals could be responsible for increasing the ethical awareness of firm leadership and the resultant perceptions of ethical firm cultures, if for no other reason than the leaders' understanding of the consequences of improper audits (e.g., lawsuits, regulatory reprimands and fines, loss of license to audit).

The Relationship between Culture and Behavior

The study also found that a significantly statistical relationship between firm culture and auditor behavior. As the auditors perceived their firms to be more ethical, they perceived that fewer instances of dysfunctional behavior occurred. However, as reported in Chapter Four, the means for some of the dysfunctional behaviors were as high
as 3.24 (out of 5.0). The question posed by the study for the auditing profession and firms to consider, then, is: Why were the frequencies of certain dysfunctional behaviors so high if the firm cultures are, for the most part, perceived as being highly ethical?

Perhaps the answer to this question lies in the relationship between organizational and individual ethics. Brief, et al. (1991) have suggested that leaders can influence subordinate belief systems by creating and fostering more appropriate cultural values for dealing with ethical dilemmas. While the in-charge auditors participating in this study may view their firms’ cultures as ethical and see this translating into reductions in dysfunctional behavior, there were still perceptions of high frequencies of certain of the studied behaviors. These higher frequencies also seem to indicate that—for certain types of behaviors—policy is not translating into practice and perhaps audit firm leaders should do more to affect appropriate values within their firms. Firms need to consider how to transform the in-charge auditors’ perceptions of an ethical firm culture into all of the efficient and effective behaviors that maintain or increase audit quality.

One example of the firms’ stated policies not translating into regular practice relates to the behavior viewed by the participants to happen most frequently out of all dysfunctional behaviors studied for the dissertation: the under-reporting of time. As discussed in Chapter Two, firms may actually reduce audit quality by evaluating auditors on the basis of meeting time budgets (Lightner, et al., 1986; Kelley and Margheim, 1990), so even though auditors hear leadership state that under-reporting of time is not an acceptable behavior, they are still rewarded for doing so. These types of confusing messages will, more likely than not, lead to continued ethical dilemmas for the subordinate auditors and encourage acts of self-interest.
Premeaux (2004), for example, noted, in a study looking at management behavior, that “when managers are confronted with maintaining personal employment or behaving ethically, remaining employed is most important to many” (p. 277). I propose that when auditors are confronted with increasing their performance evaluations or behaving ethically, performance evaluation might be most important to many. When developing systems for inculcating ethical behavior, firms may have to think seriously about current reward systems.

Revised Model of Relationships between Authentic Leadership and Ethical Culture and DAB

As just discussed, when the in-charge auditors participating in this study perceived their leaders to be more authentic, they also perceived their firm cultures to be more ethical. And, as seen in the analysis of the null hypothesis, $H_{o2}$, as firms are perceived to be more ethical, dysfunctional auditor behavior appears to diminish. The findings, in short, support a non-moderated version of the second model (see Figure 5 in Chapter Four) that was tested in this study. Figure 6 represents an amended theoretical model illustrating the implied relationships between the four constructs of authentic leadership and audit firm ethical culture; and between audit firm ethical culture and the frequency of dysfunctional auditor behavior. This model removes the hypothesized moderating effects of the individual auditors’ ethical reasoning positions and other personal characteristics (e.g., age, sex) because, while the null hypotheses associated with these relationships were rejected, the strength of the relationships were not clearly supported by the majority of the data.
Figure 6. Revised integrated model of authentic leadership, culture and dysfunctional audit behaviors.

Conclusion to Implications for Auditing

The good news from this study is that leaders and firm cultures seem to be considered highly ethical. The bad news is that, while there were statistically significant relationships between perceptions of leadership and culture, and each of these and auditor behavior, the effect may not be sufficient to materially diminish dysfunctional behavior. Firms may need to modify, for example, their hiring and retention practices; reward systems; training programs; and communication systems, in order to fully address the apparent continuance of dysfunctional behavior. As Dillard and Yuthas (2002) stated, “research … suggests that firms adopt processes that promote the firms’ ethical goals” (p. 61) but that the firms do not consider the “process by which ethical structures evolve and change” (p. 61) or how they influence behavior. This needs to change. If the firms are truly committed to ethics in accounting and auditing, the findings suggest that they should attempt to capitalize upon the in-charge auditors’ perceptions of leaders and culture as ethical in order to generate policies and practices that discourage the types of DABs studied in this dissertation.

Implications for Leadership Studies

Leaders and Behavior

As noted in the previous section, leaders in organizations should ask if and how the values held by leaders are being translated into appropriate behaviors within the
organization (Shacklock & Lewis, 2007). This study attempted to answer the if part of this question—within the specific context of the auditing profession—using Authentic Leadership Theory (ALT) as the framework for examining leader values. This study’s findings add to the existing Leadership Studies literature as they imply a statistically significant inverse relationship between the subordinates’ perceptions of the four leader values that make up ALT (transparency, moral/ethical perspective, balanced processing, and self-awareness) and the frequency of dysfunctional auditor behaviors. These findings support earlier research that suggests there is a correlation between the perception of leaders as ethical and the behavior of subordinates or followers (e.g., Baumbart, 1961; Posner & Schmidt, 1992; Brown & Trevino, 2006).

Leaders and Culture

In addition to influencing behavior of subordinates, earlier scholars have implied that leaders have a significant influence on organizational ethical culture. Trevino, et al. (2000) suggested that leaders often underestimate their own influence. Results of this study provide support for the notion that corporate or firm leaders do, in fact, have a significant impact on their subordinates’ perceptions of their firms’ ethical cultures.

The ALT theoretical framework suggests that those with positional authority do not simply act as political actors attempting to maximize their own self interest. Practitioners to recognize that leadership is more than simply holding a positional authority role. According to Zhu, et al. (2004), authentic ethical leaders “transcend their self-interest and focus on what is good for their group and organization” (p. 23). This study implies that at least one sub-set of subordinates in auditing firms do generally see their leaders as authentic ethical leaders and their firms’ cultures as ethical.
Understanding the strategies that these kinds of professional services firms have employed in order to cultivate these perceptions could have benefit for other professions or organizations facing leadership crises or conflicts.

A Final Caveat

Finally, findings from this study indicate that while leaders may be considered ethical and firm cultures may be considered ethical, this does not always translate into ethical behavior on the part of subordinates. While the study showed that there was a possible reduction in the frequency of selected behaviors considered both dysfunctional and unethical because of subordinate perceptions of their leaders and cultures, other influences must continue to be considered and studied in order to understand—to the extent feasible—why subordinates act in an unethical manner.

Conclusion of the Implications for Leadership Studies Section

Although a concern for the auditing profession was front and center in this dissertation, the study that has been reported here also adds empirical support to the emerging theory of authentic leadership within the Leadership Studies field. The study suggests that the theory and the instrument that the theory generated are useful for making sense of what is happening in organizations.

Suggestions for Future Research

The research for this dissertation provided a dataset that allowed for analyses of the hypotheses posed by the study. After reviewing the study’s findings, however, other potential areas of research were revealed—some that could be completed with or in conjunction with the existing dataset and others that would require new data to explore. For instance, future research might seek distinctions between Big Four and non-Big Four
firms in answering the study's primary research questions. Due to the anonymous nature of data collection for this study, this type of analysis was not possible. Other possibilities that could be undertaken with the existing data set would be to explore subsets of the sample, such as those who scored high on the ethical position of idealism or to determine differences among the male and female responses through the use of sensitivity analysis. Additional research that might be considered—either using or not using the data collected for this study—is discussed next.

Further Research Using or Based on Study Dataset

This research study did not gather data from any auditor group other than the in-charge auditors. Follow-up studies could examine firm leaders' (as defined for this study, firm managers and partners) perceptions and compare those findings with this study's findings generated from surveying in-charge auditors. Alternately, specific questions raised by this study could be addressed. For instance, one study could examine under-reporting of time dysfunctional behavior and its very high association with the authentic leadership component of transparency. What is it about transparency of leaders that might lessen the possibility of under-reporting time?

Additional research using the data from this dissertation could include a qualitative follow-up to this study. Qualitative data could provide a means of more fully understanding its findings. The findings from this study could be provided to members of the profession at all levels but primarily to partners, managers, and non-surveyed in-charge auditors. The researcher could ask for opinions about the findings from the study and hopefully gain a richer and more complete picture of auditor behavior within the context of authenticity of leaders and ethical firm culture.
Further Research Suggestions

As reported in Chapter Two, earlier research has looked at reasons for dysfunctional behavior and primarily determined that time pressure and employee incentives associated with appearing to work efficiently were two possible causes of dysfunctional behavior. This study examined the mitigating effect that authenticity of leaders and ethical firm cultures might have on the frequency of dysfunctional auditor behavior. Future studies should focus more specifically on the impact that leadership and firm cultures have on such variables as time pressure and incentives for appearing to be efficient. Such studies, for instance, could ask whether ethical leaders minimize time concerns or whether they are less likely to provide incentives that appear to lead to dysfunctional auditing behaviors. By examining all of these variables in a comprehensive study, a fuller understanding of relationships might come to light.

Further, this study was designed to find antecedents of dysfunctional auditor behavior and was not designed to be prescriptive in nature. Thus, it looked at the influence of authentic leadership on behavior. However, given the findings suggest that perceptions of authenticity in leaders can lead to diminishment of undesirable behaviors, audit firms and other types of organizations should be interested in developing authentic leaders. Other studies could use more action-research designs to examine ways and means for auditing firms and other types of organizations to inculcate the characteristics associated with authentic leadership into their formal authority figures.

Finally, as noted earlier in this chapter and in Chapter Four, the findings of this study implied a strong relationship between auditing firms’ subordinates perceptions of leadership ethics and firm ethical culture. Both inside and outside of the auditing
profession, the results of this study suggest the need for researchers to also continue to explore *the means by which* organizational leaders influence an organization's ethical culture.

**Conclusion**

Recent headlines (e.g., Beck, 2008; Timmons & Wassner, 2009) have shown the topic of my dissertation to be both timely and essential. Audit firms today, more than ever, need to understand how the behavior of the firms' leadership relates to the development of an ethical organizational culture. The firms are yet again being accused of conducting less than quality audits. As discussed in Chapter One, one of the measures of the quality of an audit is auditor behavior, which was measured in this study by examining the frequency of dysfunctional audit behavior. As alluded to earlier in this chapter, firm leaders need to understand how they and the ethical culture of the firms are perceived by their subordinates. Further, they should be aware of how this perception relates to the frequency of dysfunctional behaviors.

Gardner (1990) states that "leaders cannot be thought of apart from the historic context in which they arise, the setting in which they function..., and the system over which they preside. ...They are an integral part of the system (p. 1). Leaders—partners and managers—within the audit divisions of public accounting firms have been working in a turbulent period comprised of corporate scandals and failures and, if Gardner is correct, cannot be thought of apart from this environment. These leaders preside over the audit function within their firms and are responsible for the opinions relied upon by users of financial statements."
It would be wonderful to be able to say that we are operating in an historic context of ethical behavior, to suggest that unethical behavior and the types of accounting scandals that rocked the early part of this century are behind us. Unfortunately, this is not the case. As I write this conclusion to the dissertation, headlines are once again reminding us that corporate fraud and unethical behavior continue unabated. The chairman of Satyam Computer Services, an Indian outsourcing company which serves more than one-third of the Fortune 500 companies, has resigned after disclosing that he had falsified accounts. Over $1.04 billion of non-existent cash and bank loans were listed as assets in September 2008, representing 94% of these types of assets on the company's balance sheet. Fingers are already pointing at the company's auditor firm, which was replaced immediately following disclosure of the fraud. Suggestions of the auditing firm's involvement in the fraud have already been made (Kundu, 2009) and police have arrested two partners in the firm's engagement office (Arakali and Chatterjee, 2009).

The scandal at Satyam occurred in a foreign country, one that does not have the types of corporate governance and auditor regulations that have been implemented in the United States. Calls are already being made to implement the same types of changes in that country that the U.S. Congress delivered with the passage of the Sarbanes-Oxley Act of 2002 (Timmons & Wassener, 2009). Perhaps the changes brought about by this Act have produced results.

While the findings of this study indicate that dysfunctional auditor behavior is likely still a problem for auditing firms, they also suggest that the auditing firms' leaderships are being perceived as striving to set an appropriate tone for the conduct of the audits. The in-charge auditors seem, on average, to view their leadership as ethical,
transparent, self-aware, and able to process information in an unbiased manner. These are the attributes of authentic leaders and if the majority of the participants in this study are to be believed, leaders of many audit firms are engaging in this type of authentic behavior and creating ethical cultures in the CPA firms. If these findings are accurate, this is good news for the profession and for the public it serves.

The study also has had a great deal to say about the utility and legitimacy of Authentic Leadership Theory. Authentic Leadership Theory is a relatively new construct in the field of Leadership Studies. This study has demonstrated that when followers perceive their leaders to possess the qualities of authenticity (transparency, ethical perspective, balanced processing of information, and self-awareness), both organizational culture and subordinate behavior can be influenced in a positive way. The study, in short, adds empirical heft to the notion of authentic leadership and support for the psychometric properties of the instrument used to measure the construct.

It is my hope that this dissertation will serve to highlight for the auditing profession—and all professions where the character and integrity of its leaders can impact the lives of others—Authentic Leadership Theory as a potential basis for consideration in leadership development and training. Leaders who possess the qualities of authenticity will, if the results of previous studies on leader selection and socialization (e.g., Ponemon, 1992a) can be believed, encourage the development of other authentic leaders in the future. This dissertation study suggests that this cadre of authentic leaders will, in turn, create ethical organizational cultures that promote ethical behavior.
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Hall.
Appendix A

Email Sent to Participants

Jan Taylor Morris is a doctoral student at the University of San Diego. You are invited to voluntarily participate in a doctoral dissertation study she is conducting exploring in-charge (senior) auditors' perceptions regarding the leadership and ethical culture of audit firms.

Participation entails completing an online survey about your work environment, your ethical attitudes, and your perceptions of the frequency of selected dysfunctional audit behaviors.

The time required to complete the questionnaire is approximately 10 minutes. The identity of those who choose to participate will not be known by the researcher or anyone else, and your responses to questionnaire items will be completely anonymous. SurveyMonkey.com offers encryption which has been added to this survey to provide further security and ensure anonymity of responses.

If you are willing to participate in this study, please click on the following link:

https://www.surveymonkey.com/JanTaylorMorris_survey

If you have any questions about this research or would like copies of the results of the study, please contact Jan Taylor Morris at 619-260-XXXX or via email at jmorris@sandiego.edu or Dr. Robert Donmoyer at 619-260-XXXX or via email at Donmoyer@sandiego.edu at the University of San Diego.

Thank you so much for considering giving your time and help with this study!
Appendix B

Five Selected Response Items from the
Authentic Leadership Questionnaire (ALQ) version 1 Rater Instrument

Instructions: The following survey items refer to your leader’s style, as you perceive it.

Judge how frequently each statement fits his or her leadership style using the following
scale:

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Once in a while</th>
<th>Sometimes</th>
<th>Fairly often</th>
<th>Frequently, if not always</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

My leader:

1. says exactly what he or she means.

2. demonstrates beliefs that are consistent with actions.

3. makes decisions based on his or her core values.

4. asks you to take positions that support your core values.

5. makes difficult decisions based on high standards of ethical conduct.

Note: Copyright 2007 Authentic Leadership Questionnaire (ALQ) by Bruce J. Avolio, William L. Gardner, & Fred O. Walumbwa. All rights reserved in all medium. Distributed by Mind Garden, Inc. www.mindgarden.com. Reprinted with permission of the authors.
Appendix C

Corporate Ethical Values Scale $^{a,b}$

1. Managers in my company often engage in behaviors that I consider to be unethical. $^c$

2. In order to succeed in my company, it is often necessary to compromise one's ethics. $^c$

3. Top management in my company has let it be known in no uncertain terms that unethical behaviors will not be tolerated.

4. If a manager in my company is discovered to have engaged in unethical behavior that results primarily in personal gain (rather than corporate gain), he or she will be promptly reprimanded.

5. If a manager in my company is discovered to have engaged in unethical behavior that results primarily in corporate gain (rather than personal gain), he or she will be promptly reprimanded.

Notes: $^a$ Items are scored on the following scale: 1 = strongly disagree and 7 = strongly agree


$^c$ Item is reverse scored.
Appendix D

Forsyth's Ethics Position Questionnaire (1980)

This questionnaire was designed to measure your attitudes about a number of potentially related things. You will find a series of statements below. Each represents a commonly held opinion and there are no right or wrong answers. You will probably disagree with some items and agree with others. We are interested in the extent to which you agree or disagree with such matters of opinion. Please read each statement carefully and then indicate the extent of your disagreement/agreement with each item according to the following scale: 0 = strongly disagree; 1 = disagree; 2 = no opinion or neutral; 3 = agree; 4 = strongly agree

1. People should make certain that their actions never intentionally harm others even to a small degree.

2. Risks to another should never be tolerated, irrespective of how small the risks might be.

3. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.

4. One should never psychologically or physically harm another person.

5. One should not perform an action which might in any way threaten the dignity and welfare of another individual.

6. If an action could harm an innocent other, then it should not be done.

7. Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.

8. The dignity and welfare of people should be the most important concern in any society.

9. It is never necessary to sacrifice the welfare of others.

10. Moral actions are those which closely match ideals of the most "perfect" action.
11. There are no ethical principles that are so important that they should be part of any code of ethics.

12. What is ethical varies from one situation and society to another.

13. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.

14. Different types of moralities cannot be compared as to "rightness."

15. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.

16. Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others.

17. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.

18. Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.

19. No rule concerning lying can be formulated; whether a lie is permissible or not totally depends on the situation.

20. Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.

Appendix E

Definition of Study Variables

Table E.1. Definition of independent variables other than auditor characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparency</td>
<td>Transparency component of Authentic Leadership Theory (ALT): To what degree does the leader reinforce a level of openness with others that provides them with an opportunity to be forthcoming with their ideas, challenges and opinions?</td>
</tr>
<tr>
<td>Moral/Ethical</td>
<td>Moral / Ethical perspective component of ALT: To what degree does the leader set a high standard for moral and ethical conduct?</td>
</tr>
<tr>
<td>Balanced</td>
<td>Balanced processing component of ALT: To what degree does the leader solicit sufficient opinions and viewpoints prior to making important decisions?</td>
</tr>
<tr>
<td>Self-Awareness</td>
<td>Self-awareness component of ALT: To what degree is the leader aware of his or her strengths, limitations, how others see him or her and how the leader impacts others?</td>
</tr>
<tr>
<td>CEV</td>
<td>Corporate Ethical Values (see Appendix C) instrument mean score: The response items on the scale provide a composite of the individual ethical values of leaders and both the formal and informal policies on ethics of the organization.</td>
</tr>
<tr>
<td>Idealism</td>
<td>Idealism score</td>
</tr>
<tr>
<td>Relativism</td>
<td>Relativism score</td>
</tr>
</tbody>
</table>

Notes:  

a Derived from responses to Authentic Leadership Questionnaire portion of study survey instrument (see Appendix A for selected questions).  
b Derived from mean responses to items 1-10 of the Ethics Position Questionnaire portion of study survey instrument (see Appendix D for full instrument).  
c Derived from mean responses to items 11-20 of the Ethics Position Questionnaire portion of study survey instrument (see Appendix D for full instrument).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Response Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>URT-InCharge</td>
<td>On a typical financial statement audit (FSA), how often do you think typical audit seniors [in-charges] at your firm under-report chargeable time?</td>
</tr>
<tr>
<td>URT-Staff</td>
<td>On a typical FSA, how often do you think typical audit seniors at your firm allow audit staff to under-report chargeable time?</td>
</tr>
<tr>
<td>URT-Vignette</td>
<td>Taylor is a typical audit senior with your firm. The firm has recently acquired a new client with a very low bid. The engagement partner suggests the audit hour budget for inventory-related items will be 100 hours. Taylor’s experience with similar clients suggests that in order to have reasonable assurances of no material errors or irregularities, the audit will take a minimum of 150 hours. Performance evaluation is based in part on efficiency. Please indicate how likely it is that: Taylor accepts the budget and will do all necessary work to provide reasonable assurance. Taylor plans to underreport actual hours worked.</td>
</tr>
<tr>
<td>PMSO-InCharge</td>
<td>On a typical FSA, how often do you think typical audit seniors [in-charges] at your firm sign-off on audit procedures they have not completed?</td>
</tr>
<tr>
<td>PMSO-Staff</td>
<td>On a typical FSA, how often do you think typical audit seniors [in-charges] at your firm allow staff auditors to sign-off on audit procedures they have not completed?</td>
</tr>
</tbody>
</table>

*(table continues)*
<table>
<thead>
<tr>
<th>Variable</th>
<th>Response Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMSO-Vignette</td>
<td>Pat is another senior with your firm who is assigned to an engagement in which s/he is required to complete work related to market valuation of a client’s assets. Pat is not sure if the client is using the appropriate methodology for valuing the assets and feels the need to research the accounting treatment further. Upon discussing the issue with his/her manager, the manager suggests that Pat sign-off on the valuation step because s/he (the manager) is confident that the client has correctly valued the asset. How likely is it that Pat will sign-off on the audit step, even if s/he is not confident that the asset valuation is correct?</td>
</tr>
<tr>
<td>Poor Doc.</td>
<td>On a typical FSA, how often do you think typical audit seniors [in-charges] at your firm make superficial reviews of documents?</td>
</tr>
<tr>
<td>Review</td>
<td></td>
</tr>
<tr>
<td>Weak Explain</td>
<td>On a typical FSA, how often do you think typical audit seniors [in-charges] at your firm accepted weak client explanations?</td>
</tr>
<tr>
<td>Reduce Work</td>
<td>On a typical FSA, how often do you think typical audit seniors at your firm reduced work below what would be considered reasonable?</td>
</tr>
<tr>
<td>Fail to Research</td>
<td>On a typical FSA, how often do you think typical audit seniors at your firm fail to research an accounting principle when knowledge is limited?</td>
</tr>
<tr>
<td>Charge Other Code</td>
<td>On a typical FSA, how often do you think typical audit seniors at your firm shift time to a different charge code when time budget is unattainable?</td>
</tr>
<tr>
<td>DAB</td>
<td>DAB Variables</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Under-reporting of [chargeable] time</td>
<td>URT-InCharge URT-Staff URT-Vignette</td>
</tr>
<tr>
<td>Premature sign-off [of audit procedures]</td>
<td>PMSO- InCharge PMSO-Staff PMSO-Vignette</td>
</tr>
<tr>
<td>Superficial review of documents</td>
<td>Poor Doc. Review</td>
</tr>
<tr>
<td>DAB</td>
<td>DAB Variables</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Accept weak client explanations</td>
<td>Weak Client Explain</td>
</tr>
<tr>
<td>Fail to research accounting principles when knowledge is limited</td>
<td>Fail to Research</td>
</tr>
<tr>
<td>Reduce work below what would be considered reasonable</td>
<td>Reduce Work</td>
</tr>
<tr>
<td>Shift time to a different charge code</td>
<td>Charge other code</td>
</tr>
</tbody>
</table>
## Appendix F

### Additional Analysis Tables

**Table F.1. Mean and standard deviation for the IV and DV (N=120)**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Mean as a percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparency</td>
<td>4.18</td>
<td>.70</td>
<td>83.60</td>
</tr>
<tr>
<td>Moral/Ethical</td>
<td>3.88</td>
<td>.81</td>
<td>77.60</td>
</tr>
<tr>
<td>Balanced Processing</td>
<td>3.70</td>
<td>.72</td>
<td>74.00</td>
</tr>
<tr>
<td>Self-Awareness</td>
<td>3.54</td>
<td>.89</td>
<td>70.80</td>
</tr>
<tr>
<td>CEV</td>
<td>6.20</td>
<td>.95</td>
<td>88.57</td>
</tr>
<tr>
<td>Idealism</td>
<td>3.87</td>
<td>.66</td>
<td>77.40</td>
</tr>
<tr>
<td>Relativism</td>
<td>2.55</td>
<td>.73</td>
<td>51.00</td>
</tr>
<tr>
<td>URT-InCharge</td>
<td>3.24</td>
<td>.94</td>
<td>64.80</td>
</tr>
<tr>
<td>URT-Staff</td>
<td>2.74</td>
<td>.93</td>
<td>54.80</td>
</tr>
<tr>
<td>URT-Vignette</td>
<td>2.91</td>
<td>.95</td>
<td>58.20</td>
</tr>
<tr>
<td>PMSO-InCharge</td>
<td>1.97</td>
<td>.76</td>
<td>39.40</td>
</tr>
<tr>
<td>PMSO-Staff</td>
<td>1.87</td>
<td>.78</td>
<td>37.34</td>
</tr>
<tr>
<td>PMSO-Vignette</td>
<td>2.87</td>
<td>1.06</td>
<td>57.48</td>
</tr>
<tr>
<td>Poor Doc. Review</td>
<td>2.36</td>
<td>.88</td>
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</table>

**Notes:**
- Originally administered on a scale of 0-4 in to honor usage agreement with publisher (see Appendix B), but for consistency in presentation of data, responses were recoded on a 1-5 scale, with 1= Not at all and 5 = Frequently, if not always.
- Originally administered on a scale of 0-6 (see Appendix C), but for consistent presentation of data, responses were recoded on a 1-7 scale.
- 10 items originally administered on a scale of 0-4 in to honor usage agreement with publisher (see Appendix D), but for consistency in presentation of data, responses were recoded on a 1-5 scale, with 1= Completely disagree and 5 = Completely agree.
- Originally administered on a 0-4 scale (see Appendix E), but for consistency in presentation of data, recoded on a 1-5 scale, with 1= Never and 5 = Nearly always.
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<th></th>
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</thead>
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<td>Relativism</td>
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<tr>
<td>URT-InCharge</td>
<td>.126</td>
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<td>(.169)</td>
</tr>
<tr>
<td></td>
<td>(.813)</td>
<td>(.545)</td>
<td></td>
</tr>
<tr>
<td>URT-Staff</td>
<td>-.022</td>
<td>.056</td>
<td>(.487)</td>
</tr>
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<td>(.190)</td>
<td>(.189)</td>
<td></td>
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<td>URT-Vignette</td>
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<td>.061</td>
<td>(.487)</td>
</tr>
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<td>(.254)</td>
<td>(.112)</td>
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</tr>
<tr>
<td>PMSO-InCharge</td>
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<td>(.024)</td>
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<td></td>
<td>(.254)</td>
<td>(.112)</td>
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</tr>
<tr>
<td>PMSO-Staff</td>
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<td>.121</td>
<td>(.190)</td>
</tr>
<tr>
<td></td>
<td>(.254)</td>
<td>(.112)</td>
<td></td>
</tr>
<tr>
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<td>-.013</td>
<td>(.393)</td>
</tr>
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<td>(.884)</td>
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<tr>
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<td>.060</td>
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<td>Charge Other Code</td>
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<td>(.672)</td>
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</table>

Notes: ***, Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
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<td>(.684)</td>
<td>(.407)</td>
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<td>-.145</td>
<td>-.074</td>
<td>-.060</td>
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<td>-.016</td>
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<td>(.263)</td>
<td>(.461)</td>
<td>(.892)</td>
<td>(.185)</td>
<td>(.114)</td>
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Notes: **. Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
Table F.4. Multiple-regression model displaying significance: Authentic leadership (IV) and Weak Explain (DV)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>T</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.59</td>
<td>.42</td>
<td>.42</td>
<td>11.00</td>
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<tr>
<td>Transparency</td>
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<td>.16</td>
<td>-.03</td>
<td>-21</td>
</tr>
<tr>
<td>Moral/Ethical</td>
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<td>.14</td>
<td>-.43</td>
<td>-3.51</td>
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<tr>
<td>Balanced Processing</td>
<td>-.00</td>
<td>.14</td>
<td>-.00</td>
<td>-.03</td>
</tr>
<tr>
<td>Self Awareness</td>
<td>.01</td>
<td>.13</td>
<td>.01</td>
<td>.10</td>
</tr>
</tbody>
</table>

Note: **. Correlation is significant at the 0.01 level (2-tailed).
Table F.5. Multiple-regression model displaying significance: Authentic leadership (IV) and Reduce Work (DV)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Moral/Ethical</td>
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<td></td>
<td>Balanced Processing</td>
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<tr>
<td></td>
<td>Self Awareness</td>
<td>.11</td>
</tr>
</tbody>
</table>

Note: **. Correlation is significant at the 0.01 level (2-tailed).
Table F.6. Multiple-regression model displaying significance: Authentic leadership (IV) and Fail to Research (DV)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.14</td>
<td>.43</td>
</tr>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparency</td>
<td>.06</td>
<td>.16</td>
</tr>
<tr>
<td>Moral/Ethical</td>
<td>-.37</td>
<td>.14</td>
</tr>
<tr>
<td>Balanced Processing</td>
<td>.01</td>
<td>.15</td>
</tr>
<tr>
<td>Self Awareness</td>
<td>-.15</td>
<td>.13</td>
</tr>
</tbody>
</table>

Note: **. Correlation is significant at the 0.01 level (2-tailed).
Copyright Material Usage Permission for ALQ

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Permission for Jan Taylor Morris

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material:

Instrument: Authentic Leadership Questionnaire (ALQ)
Authors: Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa

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for his/her thesis research.

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

Vicki Jaimez
Mind Garden, Inc.
www.mindgarden.com
APPENDIX H

Copyright Material Usage Permission for CEV

Hunt, Shelby <shelby.hunt@ttu.edu>  Mon, Nov 10, 2008 at 8:29 AM
To: "jmorris@sandiego.edu" <jmorris@sandiego.edu>

Jan
Yes.
Best wishes,

Shelby D. Hunt
The Jerry S. Rawls and P.W. Horn Professor of Marketing
Rawls College of Business Administration
Texas Tech University
Box 42101
Lubbock, TX 79409
Office Phone: (806) 742-3436

From: jmorris@sandiego.edu On Behalf Of Jan Taylor Morris
Sent: Sunday, November 09, 2008 3:52 PM
To: Hunt, Shelby
Subject: Re: Permission to use instrument

Dr. Hunt:
Thank you again for your permission to use the CEV in my dissertation research. I am at the data analysis stage of my work and am beginning to create tables, etc. for the Appendix. I should have asked earlier, but may I also have permission to reprint the scale in my dissertation?

Jan

Jan Taylor Morris, CPA

On Mon, May 5, 2008 at 7:11 AM, Hunt, Shelby <shelby.hunt@ttu.edu> wrote:
Dear Ms. Morris,
Please consider this email my permission to use our Corporate Ethical Values Scale in your dissertation research.
Best wishes to you for much success in your dissertation.

Shelby D. Hunt
The Jerry S. Rawls and P.W. Horn Professor of Marketing
Rawls College of Business Administration
Dr. Hunt,
I am a Ph.D in Leadership Studies candidate at University of San Diego, in an interdisciplinary track with an emphasis in accounting.

My doctoral dissertation topic is: Perceived leadership style, organizational ethical values, and auditor behavior.

I would like permission to use the Corporate Ethical Values instrument developed by you and Drs. Wood and Chonko as one of my research instruments. Research participants will be audit seniors at several CPA firms (Big Four, national, and regional) in the U.S.

I hope to gather research data in June - August of this year. If you need further information, please let me know.

Thank you for your time and consideration,
Jan Taylor Morris
Hi Jan,
Sure thing. Or, more officially.
I grant permission to use the Ethics Position Questionnaire in your research, and for the reprinting of the items in your dissertation.

Don Forsyth

Also, I'll attach a recent study on the questionnaire, which has some information about cutoff points and what not.
Good luck in your work.

Don F.

Donelson R. Forsyth, Ph.D.
Professor, The Leo K. and Gaylee Thorsness Chair in Ethical Leadership
The Jepson School of Leadership Studies
University of Richmond
28 Westhampton Way
Richmond, Virginia 23173
dforsyth@richmond.edu
804-289-8461
http://facultystaff.richmond.edu/~dforsyth/

Dr. Forsyth:
I am a Ph.D in Leadership Studies candidate at University of San Diego, in an interdisciplinary track with an emphasis in accounting.
My doctoral dissertation topic is: Perceived leadership style, organizational ethical values, individual ethical position, and dysfunctional auditor behavior.
I need written permission for use of the Ethical Position Questionnaire as one of my research instruments. Research participants were audit seniors at several CPA firms (Big Four, national, and regional) in the U.S.
I also ask for permission to reprint the EPQ in my dissertation.
If you need further information, please let me know.

Thank you for your consideration,
Jan Taylor Morris, CPA