BEHAVIORAL RESEARCH IN ACCOUNTING
Volume 20, Number 1, 2008
pp. 45–74

Accounting Firm Culture and Governance: A Research Synthesis

J. Gregory Jenkins
Virginia Polytechnic Institute & State University

Donald R. Deis
Texas A&M University–Corpus Christi

Jean C. Bedard
Bentley College

Mary B. Curtis
University of North Texas

ABSTRACT: This paper summarizes research related to accounting firm culture and governance. While perennially important, this topic has immediacy due to the intention of the Public Company Accounting Oversight Board (PCAOB) to consider revisions of the current U.S. interim auditing standards on quality control. Our purposes are to bring together several disparate lines of research on this broad topic in order to identify specific areas of insufficient research. We review literature related to the roles of culture and subcultures within audit firms, and the relation between culture and audit quality. We also consider governance and control mechanisms, including policies related to consultation, independent monitoring boards, ethics training, and acculturation. Throughout the paper, we offer suggestions for future research based on the current status of the literature and the recent environmental changes in the auditing profession.

Keywords: organizational culture; governance; ethics; audit firm management; audit firm quality control; culture assessment.

INTRODUCTION

> Called "The Firm" by everyone who worked there, Arthur Andersen felt like the real-life version of John Grisham's famous novel. The prestigious name was being used to justify behavior that never would have been tolerated in the past, behavior that was wrong.
>
> —Toffler and Reingold (2003, 3)

In light of recent well-documented audit failures and the ensuing change in regulatory structure of the profession, the purpose of this paper is to synthesize the extant literature on audit firm culture and governance to stimulate research regarding implications for

We acknowledge the helpful comments received from Nancy Bagranoff, Michael Bamber, Joe Brazel, Jeff Cohen, Mark Covaleski, Mark Dirsmith, Gary Holstrum, James Hunton, Steve Kaplan, Tan Hun Tong, Paul Williams, conference participants of the 2007 PCAOB symposium, Bryan Church (the editor), and two anonymous reviewers.

audit quality. The Sarbanes-Oxley Act of 2002 (SOX) and the demise of Arthur Andersen LLP serve as reminders of the consequences of fostering a culture that values revenue generation over quality service. Indeed, the Public Oversight Board's (POB) Panel on Audit Effectiveness (the "Panel") made several recommendations about audit firm culture and "tone at the top" (POB 2000).

As part of its investigation, the Panel conducted quasi-peer reviews (QPR) at 28 offices of the eight largest accounting firms.[1] The Panel observed that audit senior and manager focus group participants frequently indicated that "engagement partners and firm leaders treat the audit negatively—as a commodity" (POB 2000, 99). The Panel encouraged audit firms to "hold high the banner of objectivity, independence, professional skepticism and accountability to the public" (POB 2000, xi). Moreover, the Panel indicated it was important that "audit firms ensure that the performance of high-quality audits is recognized as the highest priority in their professional development activities, performance evaluations, and promotion, retention and compensation decisions" (POB 2000, xi). The Panel warned that the tone at the top has a major effect on the audit firm's culture in determining whether the firm is quality-oriented or revenue-oriented, and in establishing the role of the audit as either for the public good or as a commodity. Sadly, the Enron-Andersen debacle demonstrates the results of failure to heed the Panel's warning.

The PCAOB's intention to consider revisions to accounting firm quality control (AFQC) standards, including new requirements related to audit firm culture and governance, provides additional motivation for our paper.[2,3] Existing AFQC standards require firms to establish policies and procedures to provide reasonable assurance that their personnel comply with all applicable professional standards, but do not include specific requirements related to firm culture or governance. Nevertheless, the PCAOB (2004b) recognizes that firm culture and firm governance are important overarching aspects of AFQC. While there has been some research related to accounting firm culture and governance, anecdotal evidence suggests that important changes in the regulatory and business environment (e.g., the enactment of SOX) lead to questions about the continuing external validity of reported findings. The purpose of this paper is to provide an overview of the literature relevant to culture and governance as that literature relates to AFQC as a stimulus for further research. This paper is restricted in scope to issues pertaining to firm culture and governance, and their possible effects on risk of violation of professional standards and the public interest. Hence, other issues including auditor tenure and withdrawals, auditor rotation, engagement quality assurance, specific reduced audit quality acts (e.g., premature sign-off), and auditor independence are not covered here.

---

[1] The eight largest firms were: Arthur Andersen, BDO Seidman, Deloitte & Touche, Ernst & Young, Grant Thornton, McGladrey & Pullen, KPMG, and PricewaterhouseCoopers. The QPR process included in-depth reviews of 126 audits of SEC registrants, focus groups with audit seniors and audit managers, and in-depth interviews with the partner-in-charge of the office's audit practice.

[2] To facilitate the development of auditing standards and to inform regulators of insights from the academic literature, the auditing section of the American Accounting Association (AAA) has agreed to provide a series of literature syntheses to the Public Company Accounting Oversight Board. This paper results from one of those syntheses, and is based on a separate report issued to the PCAOB. The views expressed in this paper are those of the authors and do not reflect an official position of the AAA or its auditing standards committee. In addition, the paper does not purport to reflect the views of the PCAOB or its staff, and the author team was not selected or managed by the PCAOB. While our synthesis was informed by conversations with audit partners, these individuals preferred not to be quoted.

[3] The PCAOB adopted, as its interim AFQC standards, the quality control standards of the American Institute of Certified Public Accountants (AICPA 2006c) in effect as of April 16, 2003.

The remainder of the paper is presented in three sections. The next section provides an overview of audit firm culture, addressing formal definitions of culture. Subsections consider the roles of culture within organizations, conflicts between organizational and individual goals, the existence of subcultures, social influence pressure, mentoring, communicating culture outside of the organization, and the measurement of culture. The second section describes the rather limited state of knowledge related to governance mechanisms within accounting firms. Subsections consider control mechanisms within firms, policies related to consultation, ethics training, and the use of independent monitoring boards by firms. Throughout the paper, at the end of each subsection, we present a research agenda for the current environment of professional auditing, based on prior literature. The final section of the paper presents overall conclusions of our review of the literature.

CULTURE WITHIN PUBLIC ACCOUNTING FIRMS

In this section, we draw on the literature of organization culture to consider the concept of culture within the professional context of auditing. Culture is an intuitively appealing concept. Most people recognize that various groups (e.g., religious, social, national, and corporate) have fundamentally different ways of interacting internally and with the outside world, yet culture is difficult to define in precise terms. Culture is often understood to comprise shared basic assumptions, customs, myths, and ceremonies that communicate underlying beliefs, and is evidenced by values reflected in individual and group behaviors (Reigle 2001).[4] Essentially, culture establishes the parameters of acceptable and unacceptable behavior. In the audit firm context, the firm's culture and "tone at the top" establish whether the audit is a high quality service or a mere commodity (POB 2000, 99–100). Visible symbols of culture represent integration into the organization. For example, standards of dress, membership in civic, professional and religious organizations, and expectations regarding work hours and workplace behavior all communicate an organization's culture and expectations regarding behavior (Reigle 2001). Culture "establishes recognized and accepted premises for decision making" (Hood and Koberg 1991, 12). That is, expected behaviors, or norms, result from culture.

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.[5] This struggle has touched almost every aspect of the profession. Even the fundamental issue of whether a code of conduct is necessary was hotly debated as far back as the early 1900s (Previts and Merino 1998). The recent spate of corporate scandals at companies such as Enron and WorldCom has focused debate on the significant changes in business models and cultures within the profession and in public accounting firms specifically. According to Wyatt (2004, 49), "greed became a force to contend with in the accounting firms. In essence, the *cultures* of the firms had gradually changed from a central emphasis on delivering professional services in a professional manner to an emphasis on growing revenues and profitability" (emphasis added).

---

[4] Another point worth noting is the distinction between organizational climate and organizational culture (Denison 1996). Culture is the deep structure that is rooted in values, beliefs, and assumptions, while climate is temporary in nature and subject to change by those with power and influence. While an organization's culture tends to be somewhat stable across time, the organization's climate can and does change. Factors affecting climate include personal self-interest, firm profitability, operating efficiency, team interests, friendships, social responsibility, personal morality, rules, laws, and professional codes (Sims 1992). An appreciation for this distinction is important because understanding and assessing culture should be made in light of the factors that might affect culture on a more temporary basis.

[5] See *A History of Accountancy in the United States* by G. J. Previts and B. D. Merino (1998) for an in-depth discussion of the profession's history.

The auditing profession has historically viewed firm culture as unique and proprietary, the very essence of the firm. Moreover, firms have established and nurtured their cultures more or less freely within the boundaries set by the marketplace and regulators. The American Institute of Certified Public Accountants' (AICPA) Code of Professional Conduct (CPC) and its predecessor codes of ethics, as well as quality control standards (AFQC), have been vital boundary-setting forces. The CPC is built on a framework of six principles (AICPA 2006a), embodying the guidance and rules that all members of the AICPA must follow in fulfilling their professional responsibilities. While each of the six principles is foundational, the *Public Interest* principle is particularly relevant to consideration of culture, as this principle clearly enunciates the manner in which members should carry out their responsibilities. The principle states "Members should accept the obligation to act in a way that will serve the public interest, honor the public trust, and demonstrate commitment to professionalism" (AICPA 2006b). This principle, along with the remaining five principles, establishes the fundamental importance of professionalism and serving the public interest. The PCAOB interim standards encompass the Auditing Standards Board's quality control standards (AFQC). The first element, *Independence, Integrity, and Objectivity*, is similarly relevant to firm culture. Specifically, the standard states "Policies and procedures should be established to provide the firm with reasonable assurance that personnel maintain independence (in fact and in appearance) in all required circumstances, perform all professional responsibilities with integrity, and maintain objectivity in discharging professional responsibilities" (PCAOB 2003). However, the CPC and AFQC are just two of many factors that influence the culture of public accounting firms.

Firms use formal and informal mechanisms to help achieve their objectives, including the principles embodied in the CPC, as well as such goals as profitability and growth. Formal policies and procedures, organizational structure and other practices are incorporated into firm governance. These practices are developed within the firm's culture, which is a set of beliefs and values at once more informal, yet more pervasive than policies and procedures. In the following subsections, we explore culture by considering its roles, methods employed to acculturate employees, and threats to the effectiveness of acculturation.

The Roles of Culture

Organizational culture can lead to positive outcomes such as the creation of social order and continuity, creation of communal identity and commitment, and management of collective uncertainties (Trice and Beyer 1993). Successful acculturation of employees influences an organization's financial performance. For instance, a close match between organizational values (as evidenced by the organization's culture) and individual values leads to increased job satisfaction (Wallach 1983; Lovelace and Rosen 1996). Communicating and successfully acculturating new employees is of utmost concern to accounting firms because employees generally become more productive and cost-effective as they gain experience. Consequently, employees who fit well with a firm's culture likely remain with the firm longer (Ponemon and Gabhart 1993) and contribute more to the firm's financial success. Conversely, those who are a poor fit either leave voluntarily, or are not promoted by the firm (Benke and Rhode 1984). Fogarty (1992, 130) refers to this as a socialization process in which individuals are molded by the organization to which they seek membership, a phenomenon that he calls "role acquisition."

In this light, the POB (2000) encouraged firms to utilize acculturation processes to align the individual goals of audit team members with firm goals of high-quality audit work. The POB (2000, 100) recommended that firm leaders frequently deliver a "positive, constructive message" that applauds "taking difficult stands on earnings management issues, issues involving possible management fraud or illegal acts, or contentious accounting issues." The firm should stress the concepts of "integrity and objectivity, independence, professional skepticism and accountability to the public" to new hires, and this message should be reinforced in the firm's continuing education and employee training.

Research Agenda

Culture encapsulates the essence of an audit firm; however, relatively little empirical evidence exists about cultures within firms. The paucity of evidence is largely driven by the proprietary nature of the construct. For those researchers who are able to negotiate access to firm personnel, the questions are plentiful. For example, the fundamental issue of the causes and sources of culture within firms has not been sufficiently addressed. Surveys and longitudinal studies are particularly well suited to understanding the causes and sources of culture. Also of importance to the PCAOB and the public more generally is the link between culture and audit quality. Research finds that employees who fit well with a firm's culture remain with the firm longer and contribute more to the financial success of the firm (Ponemon and Gabhart 1993). Does this type of relation also hold for audit quality, such that identifying closely with a firm's culture leads to higher audit quality? Some have argued that in the recent past, firms overemphasized profitability to the detriment of quality (Wyatt 2004). In light of recent changes in the regulatory environment and anecdotal evidence suggesting that accounting firms are emphasizing audit quality, a critical issue that is worthy of investigation is how changes in culture or acculturation processes impact audit quality. Further, how quickly do these changes have an effect? A variety of research techniques is available to answer these questions and researchers should use them to aid our understanding of these issues.

Conflicts between Organizational and Individual Goals

Because culture serves as a means to control employees and reduce undesirable behavior (Neimark and Tinker 1986), firms employ acculturation to manage the quality of professional services provided by employees, and to ensure compliance with firm-wide policies, initiatives, and goals (Covaleski et al. 1998). Many techniques are used to transform individuals into professionals whose work goals, language, and lifestyle reflect the aspirations of the firm. Fogarty (1992) identifies the following three categories of techniques to influence organizational commitment among its employees: (1) coercive (i.e., economic, structural, and legitimization); (2) mimetic (i.e., role modeling and mentoring); and (3) normative (i.e., professionalization). Although these techniques are all well intentioned, the coercive management approach followed by some firms may result in conflict as individuals attempt to balance their professional autonomy and personal aspirations with firm programs and goals. For example, Covaleski et al. (1998) report that some partners comment that firms seek to control almost every aspect of their lives, even while on vacation.[6]

[6] A series of studies by Adrian Harrell and others consider how auditors with specific personality traits react differently to the work environments of the large public accounting firms. This research essentially indicates that there is variation across individuals in the ways in which they respond to acculturation. For instance, Snead and Harrell (1991) find that personality, work stress and career intentions all affect senior auditors' job satisfaction. Also, Donnelly et al. (2003) show that auditors with external locus of control, lower performance, and higher turnover intentions are more tolerant of quality-threatening behaviors in the workplace. Thus, attempts by firms to inculcate a culture of professionalism might have limited success with those individuals.

Recently, audit firms have made changes in the workplace designed to reduce the conflict between personal and organizational values, such as greater reliance on technology and flexible work arrangements to address the changing lifestyle preference of today's younger employees. Unfortunately, these changes may make it more difficult for employees to become and to remain acculturated (Hooks and Higgs 2002). Consequently, organizations may need to supplement traditional means of communicating culture, such as formalized training, on-the-job experiences, and observing the behaviors of others, to acculturate employees whose responsibilities do not require regular and meaningful interaction with other employees. Moreover, whereas in the past, less experienced employees looked to more experienced role models as a means of identifying behaviors that ensured their future success (Trice and Beyer 1993), such practices may become less available with the more flexible work arrangements.

Flexibility, it is argued, also reduces the opportunities to observe an auditor's contributions to the firm (Almer et al. 2005). Consequently, auditors who use more flexible work schedules perceive that, in doing so, their salary and promotion opportunities are lower (Almer and Kaplan 2000). Finally, flexible time and work assignment schedules make employee monitoring more complex. Accordingly, it is even more important in these circumstances to establish a culture that rewards professionalism and emphasizes quality.

An alternate view of flexibility, in the form of job autonomy, is proposed by Bamber and Iyer (2002). In a study of Big 5 public accountants, job autonomy was found to increase both professional and organizational identification, and reduce organizational-professional conflict. Given previous findings that professional identification is associated with increased professionalism (Norris and Niebuhr 1984; Fogarty and Kalbers 2000), it may be that job autonomy amplifies the professional attitude of an auditor, thus, decreasing undesirable behavior and the need to monitor.

Research Agenda

Acculturation is a primary mechanism audit firms use to manage the quality of their audit services. However, it is unclear whether the various techniques (i.e., coercive, mimetic, and normative) used to acculturate employees are equally effective. Furthermore, researchers have not established whether changes in the audit environment (e.g., greater reliance on technology and flexible work schedules) have altered the effectiveness of traditional acculturation mechanisms such as formal training, on-the-job experiences, and modeling the behaviors of others. While there is some evidence regarding the effects of flexible work schedules on acculturation, additional research might consider how well firms are acculturating employees whose responsibilities do not require frequent interaction with other firm personnel. Also, researchers may wish to use surveys to more fully understand the personal characteristics associated with individuals' willingness to participate in flexible work arrangements. Given the significant constraints imposed by a tight employment market, audit firms can also benefit from such knowledge. Finally, the impact of flexible work schedules and job autonomy on professionalism, as well as professional and organizational identification, could be assessed using survey or experimental techniques.

The Roles of Subcultures within Organizations

Another complicating factor in research on organizational culture is the potential for subcultures within firms (McAleese and Hargie 2004). While a firm may have an overarching culture espoused at the national level, culture may also differ across functional areas such as tax, audit, and consulting (Wyatt 2004). Further, culture may differ across ranks within a firm and among the individual offices of large firms (e.g., Arthur Andersen's

Houston and Chicago offices). Hood and Koberg (1991) report on a survey of employees of eight large public accounting firms about firm culture. They report that partners perceive their firms to be more innovative and supportive than employees at lower levels (e.g., managers, seniors or staff accountants). This finding is important because young professionals frequently model behaviors of more senior personnel in an attempt to ensure success (McAleese and Hargie 2004). That is, young employees perceive their mentors' actions as communicating a great deal about acceptable and appropriate behaviors within the confines of their firm's culture. On the other hand, Hood and Koberg (1991) find no evidence that culture differs across functional areas.

A later study by Chow et al. (2002) also surveys public accounting employees about culture with the added consideration of the accounting firm's national culture (i.e., local firms were either affiliated with a U.S. firm or a Taiwanese firm). Consistent with Hood and Koberg (1991), there is evidence of culture differences across rank. However, differences are not found across functional areas. Chow et al. (2002, 358) suggest that the absence of cultural differences across functional areas may be explained by "commonality in the general backgrounds and training of accounting firm employees prior to functional specialization, or the over-arching nature of public accounting firm responsibilities and societal expectations." The absence of a culture difference across functional areas reported by Chow et al. (2002) and Hood and Koberg (1991) is inconsistent with observations by Wyatt (2004), who asserts that large firms have increasingly hired nonaccountants and other individuals who lack the same professional background and education as accountants. These nonaccountants are believed to change the cultures of large firms in significant ways by introducing a much more salient entrepreneurial and profit-driven approach to business (Wyatt 2004; Shafer et al. 2002).[7]

Mergers can also create subcultures within a firm (Cohen et al. 1993). Members of the new firm frequently become entrenched in groups based on their former firm affiliation. Consequently, the organizational identity of the new firm is slow to emerge and knowledge transfer and decision-making capabilities may be impaired (Empson 2001, 2004; Ferner et al. 1995). The problem is more acute when the cultures of the combining firms clash (Baskerville and Hay 2006). Two characteristics of the post-SOX environment pertinent to this issue are: (1) the downstream movement of SEC audit clients to smaller firms; and (2) increased merger activity among non-Big 4 firms to meet this demand (PAR 2006a, 2006b). Mergers motivated by such resource-driven needs can result in new challenges for the culture of the firm.

Large international accounting firms frequently seek to acculturate professionals into becoming members of a single firm (Covaleski et al. 1998). Moreover, there is evidence that firms have been at least partially successful in achieving this goal (Soeters and Schreuder 1988; Pratt et al. 1993; Chow et al. 2002). To the extent that acculturation achieves consistently high professional services quality and adherence to professional or firm practice standards, these efforts serve useful purposes. Ferner et al. (1995) suggest that the growth and internationalization of large firms have introduced strains on firms' "corporate glue" because cultural heterogeneity weakens the professional ethos, as do bureaucratization of the professional partnership and clashes between different management styles. Conversely, homogenization across national lines can also introduce tension, such as when there are substantial power imbalances between national partnerships (e.g., some national

[7] It is unclear from either Chow et al. (2002) or Hood and Koberg (1991) whether any of the professionals surveyed from the consulting functional area had different backgrounds or had transferred into the consulting area after first working in audit or tax.

partnerships may rely heavily on referral work from more powerful partnerships) and when there are diverging interests between the global firm and national partnerships (Ferner et al. 1995).

National legislative and public policy differences may also introduce cultural complexities. For example, Sikka (2004) points out that serving the public interest is not a universal maxim. As an example, he points to the U.K. Companies Act, which he states does not require auditors to serve the public interest or to owe a "duty of care" to parties other than management, a position at odds with practice in the U.S. Early evidence of potential effects of national legislative differences was provided in a study of U.S. and German auditors, which illustrated how different interpretations of independence rules issued by the Securities and Exchange Commission may lead to significant problems for large international firms (Dykxhoorn and Sinning 1981). Further, different legal requirements, such as those that prohibit anonymous whistle-blowing in the European Union, also require firms to be adaptable.

Research Agenda

Notwithstanding firms' efforts to establish a single culture (Covaleski et al. 1998), there is evidence that subcultures exist across ranks (Hood and Koberg 1991; Chow et al. 2002). And while Wyatt (2004) suggests that the growing numbers of firm professionals with nonaccounting backgrounds (e.g., consultants with marketing backgrounds) has contributed to a shift in firm culture, there is no evidence to support this contention. Further, there is no evidence that culture differs across functional areas such as audit, tax, and consulting (Hood and Koberg 1991; Chow et al. 2002). However, the evidence on culture in professional accounting firms is sparse and all of it was obtained prior to the enactment of SOX, so research that investigates the influence of nonaccounting professionals is warranted. Questions that could be investigated include: Have nonaccountants hired by public accounting firms experienced the same acculturation as accountants hired by the firms? How have nonaccountants hired by public accounting firms affected the firm's culture (by level of experience and functional area)?

In addition, there is ample opportunity for researchers to investigate the implications of globalization and mergers. Globalization can affect the audit client, the audit firm, or both. As Sikka's (2004) work makes clear, audit firm culture does not seamlessly transition across national borders. Researchers could investigate the role of national legislative, political, and public policy differences on the operations of large audit firms. Further, it is unclear whether the globalization of clients has resulted in cultural shifts within firms across national lines. Interview-based studies reveal that mergers influence the employee's level of commitment to the new firm (Baskerville and Hay 2006; Empson 2004). While future mergers among the larger firms are unlikely, smaller firms seem to be constantly engaging in mergers. Researchers could investigate the effects these mergers have had on organizational identity, commitment, and decision making. In light of the continuing trend toward globalization and heightened merger activity, these and related research questions are worthy of investigation.

Social Influence

Beyond its role in establishing boundaries for acceptable and unacceptable behavior, culture also lays the foundation for the ways in which firm employees interact. Culture manifests itself through techniques such as engagement time budgets, engagement performance reviews, workpaper reviews, formal counseling sessions, peer reviews, and formal mentoring programs that establish the context in which individuals interact with one another

(Covaleski et al. 1998). Adding to the complexity of these interactions is the hierarchical nature of the profession in which superiors evaluate the work of subordinates and wield considerable influence and power over subordinates' future prospects.

Subordinates are susceptible to social influence pressures and power from accounting firm superiors (DeZoort and Lord 1994; Ponemon 1992) and they expect superiors to set the tone for professional behavior (Finn and Munter 1991; Otley and Pierce 1996). Thus, the ways in which superiors and subordinates interact significantly influence the audit environment. As the ensuing discussion reveals, the extant accounting literature provides evidence of this influence.

Lord and DeZoort (2001) examine the effects of inappropriate social influence pressures on auditors' willingness to accept materially misstated financial statements. They investigate two forms of social influence pressure: obedience pressure (from commands made by superiors) and conformity pressure (from examples set by peers). Ouchi (1980) terms these socialization-based control mechanisms as "clan controls." Experimental results indicate that obedience pressure significantly increases auditors' willingness to accept materially misstated financial statements, but conformity pressure does not. Moreover, individuals with higher levels of commitment to their firms (i.e., higher organizational commitment [OC]) are less likely to sign off on significantly misstated account balances than auditors with lower levels of commitment, suggesting that OC moderates the effect of client pressure. Similarly, Otley and Pierce (1996) find that audit seniors are less likely to engage in premature sign-off and other forms of audit quality-threatening behavior (QTB) when OC is high.[8] However, OC's negative influence on QTB is eliminated when social influence pressures are introduced. Furthermore, neither high levels of professional commitment nor high moral development are sufficient to overcome these social influence pressures. Lord and DeZoort (2001, 229) state that "(the) findings that auditors are susceptible to social influence pressure, even in situations where professionals know such pressure can lead to material misstatement and audit failures, is important for understanding and managing contemporary professionals' work environment."

In their interviews of Big 4 audit partners, Pierce and Sweeney (2005) find that clan controls (Ouchi 1979, 1980) are used extensively within large international accounting firms. According to Macintosh (1985), clan controls promote efforts by staff to work toward the firm's goals (Covaleski et al. 1998) and are likely present in extreme forms in accounting firms. Pierce and Sweeney's results support Macintosh's contention. In addition to formalized controls instituted through audit methodology and operating procedures, less formal clan controls based on experience and intuition are widely used to monitor the performance of subordinates and ensure audit quality. Many of these clan controls become embedded in the procedures and routines over time, and influence the conduct of the audit and the interactions among engagement team members. These informal controls allow highly experienced individuals (e.g., managers and partners) another avenue to exercise their power.

A more recent study by Fedor and Ramsay (2007) finds that reviewers can use power to positively or negatively affect the work efforts of subordinate auditors. For example, a reviewer's use of referent power (i.e., the power that accrues to the superior by making subordinates feel valued) is positively related to performance improvement efforts and feedback seeking from the reviewer (Otley and Pierce 1996). On the other hand, a reviewer's

[8] Interestingly, Bamber and Iyer (2002) found that that perceived effectiveness of the firm's audit process is a determinant of OC. Together, this research suggests that perceptions of firm process quality impacts OC, which, in turn, impacts quality-threatening behavior.

use of coercive power is negatively related to performance improvement efforts and feedback seeking from the reviewer. Interestingly, expert power (i.e., the power that originates from superior knowledge and information) positively influences feedback seeking, but does not influence either performance improvement efforts or efforts at impression management. Additionally, subordinate performance is affected less by coercive power as the superior's perceived expertise increases. In sum, Fedor and Ramsay's (2007) results suggest that the appropriate use of referent and expert powers are critical to establishing an environment in which there is a healthy dialogue between superiors and subordinates.

Research Agenda

To recap, research finds evidence that social influence pressures affect auditors' performance. In light of this prior research, an important question is, how common are social influence pressure and the potential negative effects of power in the audit environment? Otley and Pierce (1996) find that a majority of seniors report having been asked either directly or indirectly by their managers to under-report time, and more than one-third report that they responded to tight budgets by reducing the quality of audit work. Moreover, in Lord and DeZoort's (2001) study, almost one-quarter of the participants report being subjected to either obedience or conformity pressures from someone within the firm. Still other evidence suggests that such pressures and negative consequences occur at all levels and across accounting firms of all sizes (e.g., DeZoort and Lord 1994; SEC 1993).

Additional academic research is needed to establish how different levels of social influence pressure affect audit quality, client relationships, and employee retention. Most of the existing evidence in this area predates SOX and it is unclear whether social influence pressures have been altered by the new regulatory environment. In light of anecdotal evidence about new emphasis on audit quality, research on the steps audit firms are taking to combat the negative effects of social influence pressures and power, and ensure audit quality, may be instructive. Furthermore, research investigating how firm culture exacerbates or moderates social influence pressures in the audit environment is needed. Also, we are unaware of research that has studied whether training can affect social influence pressure in the auditing context. Research in these areas could be accomplished through surveys, experiments, and archival methodologies.

Mentoring

Mentoring is a mechanism to apply social influence pressure, as illustrated by the following quote:

> Mentoring thus appears as a technique by which junior members absorb, imbibe, and interiorize the more subtle, tacit, and noncodifiable aspects of an organization's goals, which are embodied in superiors and with which they develop their new identity as firm members. (Covaleski et al. 1998, 302)

Mentoring naturally occurs in professional organizations where clan controls are commonly found (Ouchi 1980). In professions, there is a high degree of dependence among the individuals in the organization. Due to the high ambiguity in performance evaluation found in professions, mentoring serves as a mechanism to achieve goal congruence among its members.

Mentors serve many purposes, such as providing role models so that protégés may transform their identities through avowal or identification with others (Covaleski et al. 1998), as well as through the overt direction and input of the mentor (Rose 1988). Mentoring can also serve as an evaluation and governance tool (Viator and Pasewark 2005).

Because informal mentoring occurs inconsistently and without design, some firms have established formal programs in an attempt to improve job performance and socialize employees into organizational roles (Burke and McKeen 1989; Viator 1999).

In an important study on mentorship based on survey data from the then-Big 6 accounting firms, Covaleski et al. (1998) report that informal mentoring is common and largely effective, while formal mentoring programs are largely ineffectual and of short duration. Furthermore, every partner in a prominent position reports having at least one mentor who proved critical to his or her advancement in the firm. In a large study contrasting formal and informal mentorships, Viator (2001) finds that informal mentoring provides traditional career development (similar to the findings of Covaleski et al. [1998]), while formal mentoring programs provide limited effects. In contrast, Viator and Pasewark's (2005) investigation of mentorship termination finds evidence of dysfunctional outcomes when mentoring relationships continue beyond their natural spans, and from individuals who have terminated mentorships but continue to work in close physical proximity with their mentors.

Research Agenda

The studies on mentoring cited in this section tend to support the value of mentoring as a technique for acculturation. However, there is relatively little research directly concerning this topic, and, with few exceptions, these studies were published prior to 2000. Further academic research is needed to more closely document how firms use mentorships to acculturate employees in the current environment and what aspects of firm culture influence the establishment and form of mentoring relationships. While some evidence is available regarding the effectiveness of various forms and methods of mentorship for other purposes, additional research might compare different forms of mentorship for cultural inculcation purposes in the audit environment. Such research is probably best accomplished using a survey approach. However, tests of mentoring effectiveness over extended periods of time might also be accomplished through a longitudinal study of employees involved in mentoring relationships.

Communicating Culture to the Outside

Communicating a firm's culture to clients and other third parties increases the likelihood that important relationships will be more sustainable and productive (McAleese and Hargie 2004). A study by Holmes and Marsden (1996) finds that firms communicate their cultures to external parties through documents such as client bulletins and recruiting materials, but the culture portrayed in these documents often differs from the culture communicated to internal parties. Holmes and Marsden (1996) conclude that the impact of this difference on the firm and its various constituencies is unclear. Extending this line of inquiry, a recent study suggests that the extent to which actual job experiences are consistent with pre-employment expectations is an important factor in job performance (Padgett et al. 2005).

Research Agenda

Little is known about the ways in which audit firms communicate their culture to those outside of the organization. Holmes and Marsden (1996) studied this issue, but their work is now more than ten years old, and recent changes in the regulatory and professional environments may call into question some of their findings. Researchers could utilize surveys to learn what methods firms are using to communicate culture to external parties and to assess the effectiveness of those methods. It is also possible that linguistic analysis software, such as LIWC, + Diction, or PCAD, could be useful for this purpose (Gottschalk

1995). Furthermore, Holmes and Marsden (1996) suggested several research topics they believed important, including how cultural communications influence employee behavior, job satisfaction, and employee retention.

Measuring Culture

As the above review of the literature shows, culture is a complex concept that can be defined in a variety of ways. If researchers want to study culture, and if regulators such as the PCAOB want to utilize culture to assess and manage the ways in which accounting firms fulfill their public responsibilities, then care must be taken in identifying assessment techniques. In this subsection, we consider three fundamental issues arising from the literature on assessment of culture: the importance of the definition of culture applied, evaluation of measurement considerations (e.g., items to measure, measurement level, and data collection method), and selection of measurement tools.

The first consideration in measuring culture relates to the determination of *what* aspects of this construct are to be measured. Values (Key 1999; Hofstede et al. 1990) and workplace behaviors (Hofstede et al. 1990; Hofstede 1998; Van den Berg and Wilderom 2004) are common foci of culture measurement, and some argue that assessment should be based on both (Hofstede et al. 1990). Assessment methodologies include surveys, archival materials, observations, experimentation, and interviews (Van den Berg and Wilderom 2004).[9] A related consideration is the measurement level. As Hofstede (1998) states, researchers must "decide *a priori* what represents a culturally meaningful organizational unit." There should be reasonable homogeneity in the cultural characteristics of the organizational level chosen for study (Sinclair 1993). However, Van den Berg and Wilderom (2004) argue that accurate assessments are most effectively captured through team-level assessments, as employees are aware of the behaviors of others in a shared workplace. One challenging aspect of cultural assessment in public accounting is that "teams" are fluid, as employees transition through specific engagement teams, client portfolio teams, industry teams, etc.

One goal of culture measurement is to assess the parity between employees' perceptions about values and/or workplace behaviors with an organization's desired culture. Culture is frequently assessed by collecting survey data which are then subjected to factor analysis. For example, in evaluating factors affecting the success of Big 8 firm mergers, Ashkanasy and Holmes (1995) employed a "triangulation" technique. Following this approach, qualitative data are collected using observation and a mixture of informal and formal interviews, while quantitative data on individuals' perceptions of organizational ideology are measured with surveys. Convergence of data derived from these two sources provides greater depth of understanding than either methodology alone. The challenge for researchers, regulators, and accounting firms alike is to identify items (e.g., value statements or workplace behaviors) that accurately reflect firm culture.

The cultural assessment literature identifies several tools which may be useful, including the Organizational Culture Profile (OCP), the Ethical Culture Questionnaire (ECQ), and Hofstede et al.'s (1990) culture measure. The OCP is one of only a few culture measures to report details regarding reliability and validity and is one of the major measures in current use (O'Reilly et al. 1991; Sarros et al. 2005). Several of the items underlying the OCP appear closely related to the concepts of professionalism and serving the public interest. Another scale, the ECQ, was developed by Trevino et al. (1995, 1998) to assess the ethical

[9] Surveys are one of the most popular assessment techniques. See Kaptein and Avelino (2005) for recommendations to increase the effectiveness of surveys.

dimension of culture. Key (1999) argues that the ECQ may not measure an organization's ethical culture, but individual *perceptions* of ethical culture instead. If these perceptions of culture influence individual behavior, however, such assessments can be beneficial in predicting the effectiveness of governance mechanisms, such as whistle-blower hotlines (Patel 2003; Curtis 2006). Hofstede et al. (1990) develop an organizational culture measure that is widely cited in the literature. Their study finds that organizational culture differences generally result from varying perceptions of workplace behaviors and are correlated with task, structural, and control-related characteristics. Chan et al. (2003) find a strong link between Hofstede's cultural dimensions and the magnitude of accounting errors. Similarly, Smith and Hume (2005) report that auditor ethical decision making is linked to Hofstede's framework. Clearly, each of these attributes is salient in accounting firms.

Research Agenda

Given the PCAOB's interest in understanding culture and how it affects accounting firms' efforts to fulfill their public responsibilities, research is needed to determine appropriate assessment levels and techniques. Any assessment research must begin with the critical decisions of defining what to assess (e.g., values or workplace behaviors) and determining the meaningful organizational unit (e.g., engagement team, practice office, industry group, or national firm) on which to assess culture. Research investigating relationships among cultures of various organizational units and AFQC could provide regulators with important insights as to appropriate assessment levels. More specifically, what is the appropriate assessment level for determining whether a firm is fulfilling its responsibilities to the public? An additional area that may be fruitful for future research in the auditing context relates to culture measures. At this point in time, it is unclear whether the various culture measures (e.g., the OCP, the ECQ, and the Hofstede et al. [1990] measure) appropriately reflect public accounting firm culture. Future research would be useful that compares and contrasts these measures and links them to outcomes (e.g., work performance, job satisfaction, retention, audit effectiveness, and efficiency, etc.).

GOVERNANCE MECHANISMS

Most accounting firms are private partnerships, so little is known about the nature of firm governance structures by non-firm personnel. In general, firm governance consists of the rules, regulations, policies, and practices through which goals and objectives are established and monitored by the firm to ensure that responsibilities to stakeholders are fulfilled. Additionally, while corporate governance typically recognizes stockholders as the primary stakeholder, the public interest principle found in the CPC suggests that accounting firm governance should recognize a diverse set of stakeholders (e.g., investors, regulators, clients, and employees). Firm governance is critical because these stakeholders often have different interests and firm personnel must operate in a highly complex environment.

Professionals, such as accountants, perform complex tasks and solve problems using their accumulated experience and expertise (Derber and Schwartz 1991). Because teamwork is common and task performance is highly ambiguous, the evaluation of individual contributions is difficult in professional settings (Ouchi 1979). The key issue, then, is how to achieve goal congruence among the individuals and the organization. Generally, attempting to evaluate individual performance solely against a formal set of rules that specify qualitative and quantitative standards (i.e., bureaucratic controls) is considered problematic and costly (Ouchi 1979, 1980). Consequently, professional organizations frequently resort to lengthy periods of socialization, such as those discussed in the previous section, to instill organizational values and to maximize goal congruence. Covaleski et al. (1998) suggest that the traditional view of control within organizations (i.e., bureaucratic versus professional controls) fails to recognize that elements of each form of control are present within contemporary organizations such as accounting firms. While social and self-controls (i.e., professional controls) may be effective in many instances, accounting firms implement traditional management control (i.e., bureaucratic control), or governance structures, to foster consistency and firm-wide policies and initiatives. Accounting firm governance consists of mechanisms and procedures such as authority structures, rules, policies, standard operating procedures, and reward and incentive systems (Hopwood 1976). The elements of governance are collectively a significant determinant of a firm's culture because they establish boundaries for acceptable and unacceptable behaviors (Deshpande and Webster 1989).

Because the largest accounting firms operate as private partnerships, relatively little is known about their governance structures. While there is a significant body of literature on governance structures within corporations, much of the findings reported in that literature are not applicable because of the distinct operating and ownership characteristics of accounting firms. However, we do have some limited knowledge about certain aspects of accounting firms' governance structures. For example, researchers have studied selected control techniques, including compensation and rewards, policies related to consultation within firms, and independent monitoring boards. It is to these areas of understanding that we now turn our attention.

Control Mechanisms within Firms

> Progress and the accomplishment of what we are trying to accomplish has a price. The price is for existing partners to give up some of their control, power and freedom for the greater good. On balance they tend to resist doing this. The one area that constantly plagues me in my day-to-day management is the difficulty in managing a business composed of owners, professional *prima donnas*, if you like—where everything involves strong consensus building. (Covaleski et al. 1998, 316)

The preceding quote brings into focus the tensions between those who deliver client services (i.e., practice partners) and those charged with managing accounting firms (i.e., administrative partners). An ethnographic study reported in Covaleski et al. (1998) and Dirsmith et al. (1997) explores these tensions and identifies management by objectives and mentoring as two commonly used control techniques. Spanning more than 15 years and including interviews with 180 individuals, that study underscores the challenges of managing large, complex organizations such as international accounting firms.

Management by objective (MBO) is a process in which performance objectives (e.g., revenue growth, realization rates, etc.) are set as benchmarks to evaluate future performance. According to Covaleski et al. (1998), MBO is used to instill financial performance goals in practice partners and to increase their commitment to these goals. The comments of practice and administrative partners related to MBO reveal differences of opinion as to the technique's intended and perceived use. Administrative partners state that they view MBO as useful in reminding practice partners that they work *for* an organization and are not operating as autonomous professionals. On the other hand, practice partners view MBO as distracting and secondary to their client service responsibilities. In effect, these differing views illustrate the conflict created when professionals who are accustomed to acting autonomously in their capacity as partners within the firm become subjected to formal bureaucratic controls (Abernethy and Stoelwinder 1995).

Another control trend in the large firms is that of centralization (Greenwood et al. 1990; Ferner et al. 1995). Certainly, MBO reflects a move toward centralization as the national or even international office establishes performance objectives. However, centralization also involves strategic, marketing, financial, and operating aspects of the practice (Greenwood et al. 1990). For instance, auditing professionals note their firms' desire to achieve a "one firm" status (Hoeksema and de Jong 2001; Thornbury 1999). There are two major forces behind this objective. First, because client operations are becoming so geographically dispersed, firms are increasingly organizing their people around client industries, as opposed to offices to improve service (Thornbury 1999). Anecdotal evidence suggests that at least one of the Big 4 is currently reorganizing its professionals into industry-based, client-portfolio teams. It is unclear what this type of realignment might mean for these professionals' ability to be acculturated (Covaleski et al. 1998). Second, firms are pursuing homogenization of worldwide audit practices and related policies to better manage risks and increase consistency throughout the organizations (Morris and Empson 1998). One international partner noted that his firm had even initiated a process under which he would personally approve each audit proposal submitted to new, large clients. After various national office partners realized the potential for undesired power shifts (i.e., firm personnel recognized the potential loss in autonomy) within the firm, this plan was abandoned (Covaleski et al. 1998).

The manner in which a firm structures its compensation and reward systems is also used for control purposes. As previously noted, Dirsmith et al. (1997) and Covaleski et al. (1998) cite attempts by national offices of large firms to exercise greater control over incentives of local office partners through such techniques as MBO. Although a recent study indicates that these efforts continue (Dirsmith et al. 2005), Zeff (2003) argues that excessive emphasis on profitability and competition has caused partners in large accounting firms to lose their focus on audit quality. Thus, it is important for research to continue to consider issues around incentives induced by compensation and reward systems in audit practice.

In general, the literature on long-term alignment of incentives suggests that the compensation basis of individual partners should not be based on revenue generation alone, but, also, on the risk borne by the partnership for the specific partner's client portfolio and the audit quality of the engagements he/she supervises (Almer et al. 2005; Liu and Simunic 2005). This implies that client portfolio risk, partner expertise, and engagement activity directed toward limiting risk must be measured and used in personnel management—a difficult task. Within the area of revenue-based compensation, research shows that incentives for audit quality are more effective when compensation is based on a larger "pool" of revenue (Trompeter 1994; Carcello et al. 2000) because each individual partner has less at stake in such an arrangement. While anecdotal evidence from large firms suggests that partner compensation schemes may have changed since passage of SOX (e.g., greater focus on technical expertise), we are unaware of empirical evidence of these changes. A related matter involves such practices as charging engagement partners for calling in a specialist and "gatekeeper" fees for work done in a geographic area when local personnel are not involved. While research on these practices would be very helpful, we are unaware of any relevant published studies.

Just as with partner compensation schemes, little is known about the details of audit staff reward systems. For example, the precise balance between audit efficiency and effectiveness in staff reward systems is a key topic. A few studies report meaningful numbers of quality-threatening behaviors associated with various forms of on-the-job pressure (e.g., DeZoort and Lord 1997; McNair 1991; Sweeney and Pierce 2004; Ettredge et al. 2005). The presence of such behaviors suggests stronger incentives for audit efficiency than for effectiveness. While the business of auditing certainly requires that engagement activity be performed efficiently, the reward systems of audit firms should explicitly recognize audit quality contributions and encourage an open dialogue regarding budgetary pressures (Buchheit et al. 2003). If not, audit quality may suffer. Because all of the above compensation and reward systems studies were performed prior to SOX, the extent to which firms have modified their systems and the effects of those modifications are unknown.

Research Agenda

Limited research on organizational control and compensation/reward systems in audit firms suggests that these incentive structures affect partner and employee behavior. However, further study is needed of the specific ways in which control mechanisms operate in the current auditing environment. Particularly, descriptive research would be welcome on how the large firms are organizing their practices around geographical, industry, or functional lines of service in the current post-SOX environment. This information could help researchers devise studies to examine the effects of variation in practice on the audit and other services offered by these firms. For example, surveys could investigate partners' views of the balance of centralization versus professional autonomy, associated with specific control mechanisms (Ferner et al. 1995; Covaleski et al. 1998). Also, researchers could examine the effects of different degrees of balance of industry versus geographical audit-team alignment on audit and service quality. A further topic of international interest is the extent to which individual firm practices are consistent worldwide, and whether reactions to organizational control attempts differ across countries.

Regarding compensation/reward systems specifically, research is needed to back up current anecdotal evidence that the balance of rewards has shifted toward audit effectiveness from revenue generation (for partners) and efficiency or meeting budget (for employees). Cultural change in firms as a result of shifts in reward systems should be evidenced by reduced levels of quality-threatening behaviors, which survey research could document.

Policies Related to Consultation

Since knowledge and expertise are unevenly distributed among the personnel in audit firms, it is vital for these organizations to devise methods for knowledge sharing. To some extent, information technology facilitates knowledge sharing. For example, past work experiences, best practices, survey and statistical study results, standard processes, prior year workpapers, and other forms of explicit knowledge can be "codified" and searchable in an IT-based, expert knowledge system (Vera-Muñoz et al. 2006). However, it is not easy to codify tacit knowledge derived from an individual's intuitions, beliefs, or values. This knowledge (i.e., "know-how") is shared through socialization, which we have already discussed, or through consultation, which we discuss next.

As business and financial reporting become increasingly complex and negotiation with management more commonplace, consultation within the audit firm is more prevalent (Nelson et al. 2002; Gibbins et al. 2001). While informal consultation occurs frequently within engagement teams and among colleagues across teams, accounting firms also enable more formal consultation processes through the establishment of specialized internal groups referred to as central research units (CRU) and accounting consultation units (ACU) (Salterio 1994). These groups fulfill practice support roles by providing research support and information to local practice partners, and conducting research often with the goal of providing a practice partner with a "best solution" (Salterio and Denham 1997).

To some extent, a firm's use of research and consultation units is influenced by its culture. For example, Salterio and Denham (1997) classify firms as either discovering or conditioned-viewing organizations, based on Daft and Weick's (1984) organizational memory typology, and determine that firm classification is closely aligned with the use of consultation. More specifically, discovering firms rely heavily on consultation and are characterized by efforts to stress consultation at the earliest possible time, promotion of consultation resources via periodic newsletters from the consultation unit to practice office personnel, and the use of firm-wide, peer-review systems. Alternatively, conditioned-viewing firms are characterized by little to no emphasis on the importance of early consultation, few efforts to promote the use of the consultation unit by practice offices, and limited sharing of knowledge across consultations (i.e., each consultation was viewed as a unique event). Not surprisingly, Salterio and Denham (1997) report that there are different levels of financial support, required consultation, documentation, and reliance on research and consultation units across the accounting firms studied.

There are governance benefits that accrue to firms that utilize centralized research and consultation units. For example, managers who rotate through assignments in these units become more proficient at conducting research (Salterio 1994). Also, after completing their short-term rotations, they return to local practice offices where they are able to share their knowledge and information about the firm's research resources (Salterio and Denham 1997), which potentially improves others' research abilities (Danos et al. 1989). Another significant benefit is the creation of an organizational memory. These units create a vast database of research that can be drawn on to address similar issues on future engagements (Morris and Empson 1998; Salterio and Denham 1997). Not only do such databases create efficiencies for a firm, but they also improve the potential for consistency of accounting treatments recommended to clients, a matter of past concern (Schuetze 1994). Although it is unclear from the research, more structured firms might be better able to achieve this consistency.

Research Agenda

Audit firms use research and consultation units for various purposes including training, knowledge transfer among firm professionals, and consistency in the application of professional and firm standards and guidelines. Because the studies in this area are more than ten years old and the audit environment has changed so greatly, researchers should consider surveying practices related to the use of research and consultation units. Research that examines how extensively practice partners are using consultation and research units in the post-SOX era would be instructive. Have the circumstances that require the use of these types of internal resources changed since the enactment of SOX? Also, researchers could investigate how the use of a consultation unit or a research unit affects audit quality. Are there differences in the audit quality of firms using a consultation unit compared to a research unit?

Ethics Training

Training, particularly ethics training, is another formal mechanism employed by firms to direct and alter the behavior of employees. Among auditing ethics researchers, ethics training is considered essential for achieving the changes in culture necessary to prevent future accounting scandals similar to those of the past few years (Dellaportas 2006). Extant research explores two basic issues: where and how accounting professionals receive ethics training, and whether ethics training is capable of achieving the desired changes.

The first issue concerns the nature, location, and timing of ethics training received by accounting professionals. Although firms exert significant effort in evaluating their clients' ethics training (Deloitte 2003), insufficient information is available regarding their own internal ethics training programs. A search of the practitioner literature provides little insight into the firms' activities in this regard. One approach to ethics training may be the use of outside continuing professional education (CPE) providers. The AICPA and state societies frequently offer CPE courses on professional ethics, and, at one time, *Professional Ethics for CPAs* was one of the AICPA's most popular self-study courses (*Journal of Accountancy* 1989). However, this demand may be driven more by the ethics component of CPA certification than by firms' desire to employ ethics training for governance purposes. In a series of interviews with partners from several large CPA firms, Warth (2000) finds that all but one firm interviewed relies primarily on colleges to educate their members on the ethical behavior expected in the profession. With few minor exceptions, in-house training programs did not include coverage of ethics topics.

While it seems likely that ethics training is occurring in public accounting, there are no recent reports of such activities in the literature. Thus, the nature and extent of ethics training in public accounting remains unknown. We do know that large firms have established chief learning officers (CLO) who design firm training for various purposes, and these CLOs report that all of their training programs were still very much linked to performance on the job, making their employees engagement-ready (CPA Personnel Report 2004). Teaching ethics outside of this engagement orientation may cause employees to view the training as something the firm does for outside reasons, divorced from what is important to management (Master 2002).

The second issue regarding ethics training concerns its effectiveness. On this topic, academic research follows two general paths: (1) study of how ethics training programs should be designed, and (2) the assessment of moral reasoning among those who have had ethics training. In regard to the design of ethics training programs, Kerr and Smith (1995) suggest approaches to ethics training and report that students feel such training is important. Langenderfer and Rockness (1989) provide a step-by-step approach to the teaching of ethics cases. Loeb (1988, 1991) proposes goals for ethics education, and Geary and Sims (1994) stress the role of assessment in any ethics educational program.

In evaluating the effectiveness of ethics training, most studies have found a significant increase in some aspect of ethical behavior after exposure to ethics training. The most common theory employed is Kohlberg's (1964) Levels of Moral Development, as measured by Rest's (1979) Defining Issues Test. For example, Abdolmohammadi and Reeves (2000), Earley and Kelly (2004) and Welton et al. (1994) all find that training increased the level of moral development in college students.

A few studies provide insight into the relationship between the behavior of professionals and ethics training. Thomas et al. (1998) provide evidence of an association among poor results of quality review, low levels of continuing professional education, low levels of experience, and incompetence among public accounting practitioners. Specifically, they found that CPAs who violate ethics rules related to technical issues have fewer relevant CPE hours than CPAs in a randomly selected control sample. Shaub (1994) shows that, overall, professionals who have taken an ethics course are higher in moral development. In a survey of business school graduates, Delaney and Sockell (1992) find that the existence of an ethics training program: (1) lowers perceptions that respondents have to behave unethically to get ahead in their organizations, and (2) is positively associated with refusal to take unethical action in the most serious ethical dilemma faced by study participants.

There is some evidence of limitations in ethics training, as well. For example, Hiltebeitel and Jones (1991) report that, while students change the manner in which they resolve professional ethical dilemmas after completing ethics modules, there is no corresponding change in the way they solve ethical dilemmas of a personal nature, and no improvement in the relative ease of resolving ethical dilemmas. Lampe (1996) assesses the moral development of a large sample of accounting students before and after ethics training. He finds that the average student moral development score does not increase from the ethics training provided, and, in some cases, post-training development scores are lower than pre-training scores. Possible explanations include: (1) student self-selection into the accounting profession results in overly rules-driven professionals; (2) merely including a limited amount of ethics training in a class designed for other purposes cannot achieve the results of ethics immersion in a stand-alone ethics class; and/or (3) the job market sends a subtle but effective message that technical excellence and strict obedience to firm policy are the most important determinants of success in public accounting. Similarly, Abdolmohammadi et al. (2003) propose that selection or socialization effects may be associated with weaker ethical reasoning among accountants.

Finally, extant research suggests deterioration in the positive effects of ethics training over time. Eynon et al. (1997) find that completion of an ethics course in college has a positive impact on moral reasoning abilities, although age is negatively related to accountant's moral reasoning.[10] This may suggest that moral reasoning ability decays over time or that our memory for the details of our profession's code of conduct grows dim over time, reinforcing the notion that ethical behavior cannot be achieved merely through employee selection and college curriculum, but instead requires ongoing ethics training and acculturation. Similar results are obtained by Shaub (1994) and LaGrone et al. (1996).

Research Agenda

In sum, limited evidence to date generally supports the ability of ethics training to enhance ethical decision making, although there are lessons to be learned from unsuccessful ethical intervention exercises (Earley and Kelly 2004; Lampe 1996; Ponemon 1993). Where positive results have been found, they tend to be transitory (LaGrone et al. 1996), suggesting the need for periodic reinforcement. Due to the lack of current information on ethics training in public accounting, an important first step in a research agenda is descriptive research on when and how firms engage in training to address the ethical development of their personnel. While descriptive research would be valuable, this documentation process might also provide information on the linkages between firm-based ethics training and organizational culture. In regard to ethics training, in general, inconsistent findings on the effectiveness of ethics training in modifying ethical behavior suggest the need for considerably more attention to this basic question. Research directly contrasting various forms of ethics training is also needed to resolve the methodological differences that may underlie those conflicting results (Lampe 1996). Further, the studies cited here suggest certain limitations in ethics training, such as the effects of ethics training degrading over time. Additional research is needed to more fully understand the limitations of such training and the testing of methods of overcoming identified limitations.

[10] This appears to be contrary to the pattern observed in the general population (Eynon et al. 1997).

Independent Monitoring Boards

In a June 21–22, 2004, memo to its Standing Advisory Group (SAG), the PCAOB asked the SAG to consider whether the PCAOB should require, or strongly encourage, firms to establish independent monitoring boards as part of their formal governance mechanisms (PCAOB 2004a). While we are unaware of the existence of monitoring boards at any of the Big 4 firms, some firms are experimenting with advisory boards that would serve some of the same roles as an independent monitoring board. The primary difference is that the advisory board has no management authority. We are aware of only two major accounting firms, Moss Adams and BKD, which have established independent monitoring to oversee their firms' ethics functions (Telberg 2004). These firms view the independent monitors as complementing their existing quality control programs. Moss Adams utilizes a single individual to serve in this function, while BKD utilizes a committee to oversee the ethics function.

As noted by Telberg (2004), both firms make a number of important points regarding the effectiveness of their monitoring functions. First, similar to the Sarbanes-Oxley requirement related to audit committee budgetary discretion, Moss Adams and BKD executives quoted by Telberg (2004) suggest that there should be a meaningful budget under the control of the independent monitor. Second, the monitor should be an active participant in meetings of top management and have the authority to interview any member of the firm. Another, perhaps more sensitive suggestion, is the ability of the independent monitor to interview the firm's clients as deemed necessary. Each of these suggestions is consistent with findings reported by the Kalbers and Fogarty (1993) study of audit committee effectiveness. Kalbers and Fogarty (1993) find that effectiveness is improved when boards of directors provide a "meaningful designation" to the committee's work and institutional support, as well as perceived charisma and basic leadership of those who serve on the committee.

Research Agenda

Until auditing firms begin to establish independent monitoring boards of their own, research opportunities within the auditing profession are limited. However, there are possibilities for *ex ante* research. For instance, researchers could analyze the legal and regulatory implications of forming such boards. Also, it would be useful to survey stakeholders (e.g., audit firms, standard setters, and client personnel) regarding their views on the likely effectiveness of monitoring boards, and on their specific alternative organizational forms.

CONCLUSIONS

In this paper, we present an overview of the literature related to culture and governance within public accounting firms. Our findings and research agendas are summarized in Table 1. There are two primary purposes for providing this overview. First, this review was prepared for the PCAOB as part of an organized effort by the auditing section of the American Accounting Association to inform the board of research relevant to its accounting firm quality control standards. Second, this literature review is intended to provide a basis for future research in the areas of culture and governance within the accounting profession. While any literature review is necessarily limited in its scope, our goal is to review literature related to several specific areas, including the roles of culture and subcultures within firms, the relation between culture and audit quality, governance including control mechanisms, policies related to consultation, independent monitoring boards, ethics training and acculturation, and assessment of culture.

TABLE 1
Summary of Main Findings and Research Agenda

	Prior Research Findings	Research Agenda
Panel A: Culture Within Public Accounting Firms		
The Roles of Culture	• Culture establishes the parameters of acceptable and unacceptable behavior. • An audit firm's culture and "tone at the top" underlie audit quality. • Firms use formal and informal mechanisms to acculturate employees. • Successful acculturation of employees influences an organization's performance; employees become more productive with experience.	• What are the causes and sources of culture within auditing firms? • What are the links between culture and audit quality (extending prior work on cultural fit)? • How has the culture of auditing firms changed since SOX? • How do changes in culture impact audit quality? • How quickly do these changes have an effect on auditor behavior, and what are the factors associated with speed of acculturation?
Conflicts between Organizational and Individual Goals	• Acculturation is a primary mechanism audit firms use to manage the quality of their audit services. • A variety of techniques is used to transform employees into professionals: coercive, mimetic, and normative (Fogarty 1992). • Conflict may result from coercive methods (Covaleski et al. 1998). • Firms have adopted technology and flexible work schedules to reduce conflict. • Job autonomy has also been found to reduce conflict through increased professional and organizational identification.	• Have changes in the audit environment (e.g., greater reliance on technology and flexible work schedules) altered the effectiveness of traditional acculturation mechanisms such as formal training, on-the-job experiences, and modeling the behaviors of others? • Are coercive, mimetic, and normative techniques equally effective in influencing organizational commitment? • Does a firm's use of coercive, mimetic, and normative techniques result in different levels of conflict between firm and individual goals? • Are firm efforts to adopt technology and flexible work arrangements effective at reducing conflicts between firm and individual goals? • How well are employees with flexible work arrangements being acculturated? • What is the impact of flexible work schedules and job autonomy on professionalism, as well as professional and organizational identification? • What personal characteristics are associated with auditors' willingness to participate in flexible work arrangements?

(*continued on next page*)

TABLE 1 (continued)

	Prior Research Findings	Research Agenda
The Roles of Subcultures within Organizations	• While audit firms espouse an overarching culture, there is evidence of different subcultures across ranks and among individual offices. • There is no consistent evidence of subculture differences across functional areas. • Audit firm culture may not seamlessly transition across national borders (Sikka 2004), due to strains from different cultures and management styles. • Audit firm mergers influence the organizational commitment and knowledge transfer in the newly merged firm (Baskerville and Hay 2006; Empson 2004).	• Do subcultures exist among nonaccountants and across functional areas in today's post-SOX environment? • Have nonaccountants experienced the same acculturation as accountants hired by the firms? • Have nonaccountants hired by public accounting firms affected the firms' cultures? • What are the implications of international subcultures for audit firms (e.g., national legislative, political, and public policy differences)? • Has the globalization of clients resulted in cultural shifts within firms across national lines? • How have mergers among smaller firms affected the level of organizational commitment and ethical decision making within the new firm?
Social Influence	• Culture affects the way firm employees interact. • Prior research finds evidence that social influence pressure from superiors affects subordinates' performance, but peer pressure does not (Lord and DeZoort 2001). • Otley and Pierce (1996) find that social influence pressure is common among Irish audit seniors. • "Clan controls" are used to monitor subordinate performance (Pierce and Sweeney 2005). • DeZoort and Lord (1994) find negative consequences from social pressure in all levels and in different size firms. • Fedor and Ramsay (2007) find that reviewers use power for negative or positive influence.	• How do different levels of social influence pressure affect audit quality, client relationships and employee retention in the current post-SOX environment? • Have social influence pressures been altered by the new regulatory environment in the U.S.? • What steps are audit firms taking to combat the negative effects of social influence pressure on audit quality? • How does firm culture exacerbate or moderate social influence pressure? • Can training moderate the effects of social influence pressure in the auditing context?

(*continued on next page*)

TABLE 1 (continued)

Mentoring	• Mentoring can serve as both acculturation and control purposes (Viator and Pasewark 2005). • Both formal and informal mentoring is present in accounting organizations (Viator (2001). • Informal mentoring is common and largely effective, while formal mentoring programs are largely ineffectual and of short duration (Covaleski et al. (1998).	• How do firms use mentoring to acculturate employees? • What aspects of firm culture influence the establishment and form of mentoring relationships in public accounting? • How do the various forms of mentorship differ in effectiveness of acculturation?
Communicating Culture to the Outside	• Little is known about the ways in which audit firms communicate their culture to those outside of the organization. • Relevant research is dated, and recent changes in the regulatory and professional environments may call prior findings into question.	• What methods are firms currently using to communicate culture to external parties? • Are those methods effective? • How do cultural communications influence employee behavior, job satisfaction, and employee retention?
Measuring Culture	• Three key considerations are the definition of culture, evaluation of measurement considerations (e.g., items to measure, measurement level), and selection of measurement tools. • Assessment methodologies include surveys, archival materials, observations, experimentation, and interviews (Van den Berg and Wilderom 2004). • Assessment tools include the Organizational Culture Profile (OCP), the Ethical Culture Questionnaire (ECQ), and Hofstede et al.'s (1990) culture measure.	• What are the relationships among cultures of various organizational units and AFQC? • What is the appropriate level of culture measurement to assess whether a firm is fulfilling its public responsibilities? • Do existing tools such as the OCP and ECQ accurately reflect accounting firm culture? • Which culture measures are more closely related to outcomes of job performance and job satisfaction in auditing?

(*continued on next page*)

TABLE 1 (continued)

	Prior Research Findings	Research Agenda
Panel B: Governance Mechanisms		
Control Mechanisms within Firms	• Common control techniques include management by objectives and mentoring (Covaleski et al. 1998; Dirsmith et al. 1997). • Large firms are centralizing governance mechanism for control and coordination of global audits (Morris and Empson 1998). • Compensation and reward systems are also used for control purposes, to the potential detriment of audit quality (Dirsmith et al. 2005; Zeff 2003).	• How have SOX and other environmental factors changed the ways in which firms organize their practices? • What is the impact of centralization on audit quality? • How consistent are firm structure and practices worldwide and how do partners of differing culture react to changes aimed to increase organizational control? • How has the balance of rewards shifted for partners and employees in the post-SOX environment, and have these changes been effective in increasing audit quality?
Policies Related to Consultation	• Firms have various methods for knowledge sharing among personnel (Vera-Muñoz et al. 2006). • Central research units (CRU) and accounting consultation units (ACU) have become more prevalent, although firm policies regarding their use differ across firms (Salterio 1994).	• How do firms use CRU and ACU for training, knowledge transfer, and consistency? • How extensively do practice partners use CRU and ACU, and how does their use affect audit quality? • Have the circumstances requiring the use of these internal knowledge-sharing resources changed since SOX?
Ethics Training	• Firms may rely on colleges to educate employees on ethical behavior (Warth 2000). • Most studies find a significant increase in some aspect of ethical behavior after exposure to ethics training (Abdolmohammadi and Reeves 2000; Earley and Kelly 2004; Welton et al. 1994). • Similar to other types of training, the positive effects of ethics training may deteriorate over time (Eynon et al. 1997; Shaub 1994).	• When and how do firms engage in ethics training? • What are the linkages between firm ethics training and firm culture? • What are the most effective forms and methodologies for ethics training? • What are the limitations in ethics training at both the college and firm level?
Independent Monitoring Boards	• Evidence is mixed in the effectiveness of independent monitoring boards (Petra 2005). • Monitoring board effectiveness is more related to tasks than composition (Denis 2001). • Some firms are experimenting with advisory boards serving some same roles as independent monitoring boards (Telberg 2004).	• What are the legal and regulatory implications of independent monitoring boards in public accounting? • What are the views of stakeholders regarding the likely effectiveness and alternative organizational forms of monitoring boards?

In a June, 2004, memo to its Standing Advisory Group, the PCAOB included the following question: "What should the PCAOB quality control standard require with respect to a firm's culture, including a central focus on professionalism and the public interest?" (PCAOB 2004a). Historically, the profession has viewed firm culture as unique and proprietary, the very essence of the firm. Moreover, firms have established and nurtured their cultures more or less freely, but within the boundaries set by the marketplace and regulators. Nonetheless, recent corporate scandals have called into question whether accounting firms have nurtured cultures which emphasize an appropriate level of professionalism and commitment to serving the public interest. Given the current state of the literature, it is unclear whether firms have indeed nurtured such cultures successfully. Certainly, there is anecdotal evidence that firms have renewed their commitment to a culture that emphasizes audit quality, but is this truly a shift in firm culture, or merely a shift in firm climate? (Denison 1996; Sims 1992). Only with the passage of time and carefully performed research can we expect to arrive at an answer to this question.

The PCAOB (2004a) also included the following question regarding governance in its June, 2004, memo to the SAG: "What should the PCAOB quality control standard require with respect to a registered firm's governance?" Our review of the literature reveals that we know little about the governance of accounting firms. While firms, doubtless, have much in common with other large organizations, their unique ownership structures and operating characteristics make them an interesting subject for future research. To this end, we have suggested a variety of research issues that we hope will stimulate future research on this important topic.

REFERENCES

Abdolmohammadi, M., and M. F. Reeves. 2000. Effects of education and intervention on business students' ethical cognition: A cross-sectional and longitudinal study. *Teaching Business Ethics* 4 (3): 269–284.

———, W. Read, and D. P. Scarborough. 2003. Does selection-socialization help to explain accountants' weak ethical reasoning? *Journal of Business Ethics* 42 (1): 71–81.

Abernethy, M. A., and J. U. Stoelwinder. 1995. The role of professional control in the management of complex organizations. *Accounting, Organizations and Society* 20 (3): 1–17.

Almer, E., and S. E. Kaplan. 2000. Myths and realities of flexible work arrangements. *The CPA Journal* 70 (4): 14–19.

———, J. Higgs, and K. Hooks. 2005. A theoretical framework for the relationship between public accounting firms and their auditors. *Behavioral Research in Accounting* 17: 1–22.

American Institute of Certified Public Accountants (AICPA). 2006a. *Code of Professional Conduct.* New York, NY: AICPA.

———. 2006b. *Principles of Professional Conduct, Article II—The Public Interest.* New York, NY: AICPA.

———. 2006c. *Statements on Quality Control Standards.* New York, NY: AICPA.

Ashkanasy, N. M., and S. Holmes. 1995. Perceptions of organizational ideology following merger: A longitudinal study of merging accounting firms. *Accounting, Organizations and Society* 20 (1): 19–34.

Bamber, M. E., and V. M. Iyer. 2002. Big 5 auditors' professional and organizational identification: Consistency or conflict? *Auditing: A Journal of Practice & Theory* 21 (2): 21–38.

Baskerville, R., and D. Hay. 2006. The effect of accounting firm mergers on the market for audit services: New Zealand evidence. *ABACUS* 42 (1): 87–104.

Benke, R., and J. Rhode. 1984. Intent to turnover among higher level employees in large CPA firms. *Advances in Accounting* 1: 157–174.

Buchheit, S., W. R. Pasewark, Jr., and J. R. Stawser. 2003. No need to compromise: Evidence of public accounting's changing culture regarding budgetary performance. *Journal of Business Ethics* 42 (2): 151–164.

Burke, R. J., and C. A. McKeen. 1989. Developing formal mentoring programs in organizations. *Business Quarterly* 53 (3): 76–79.

Carcello, J., D. Hermanson, and H. Huss. 2000. Going concern opinions: The effects of partner compensation plans and client size. *Auditing: A Journal of Practice & Theory* 19 (1): 67–77.

Chan, K. H., K. Z. Lin, and P. L. L. Mo. 2003. An empirical study on the impact of culture on audit-detected accounting errors. *Auditing: A Journal of Practice & Theory* 22 (2): 281–295.

Chow, C. W., G. L. Harrison, J. L. McKinnon, and A. Wu. 2002. The organizational culture of public accounting firms: Evidence from Taiwanese local and U.S. affiliated firms. *Accounting, Organizations and Society* 27 (4/5): 347–360.

Cohen, J. R., L. W. Pant, and D. J. Sharp. 1993. Culture-based ethical conflicts confronting multinational accounting firms. *Accounting Horizons* 7 (2): 1–13.

Covaleski, M. A., M. W. Dirsmith, J. B. Heian, and S. Samuel. 1998. The calculated and the avowed: Techniques of discipline and struggles over identity in Big 6 public accounting firms. *Administrative Science Quarterly* 43 (2): 293–327.

CPA Personnel Report. 2004. Top learning organizations focus on performance. *CPA Personnel Report* 23 (5): 1–7.

Curtis, M. B. 2006. Whistle-blower mechanisms: A study of the perceptions of "users" and "responders." *Report of the Dallas Chapter of the Institute of Internal Auditors.* Available at: http://www.dallasiia.org.

Daft, R., and K. Weick. 1984. Toward a model of organizations as interpretation systems. *Academy of Management Review* 9 (2): 284–295.

Danos, P., J. W. Eichenseher, and D. L. Holt. 1989. Specialized knowledge and its communication in auditing. *Contemporary Accounting Research* 6 (1): 91–109.

Delaney, J. T., and D. Sockell. 1992. Do company ethics training programs make a difference? An empirical analysis. *Journal of Business Ethics* 11 (9): 719–727.

Dellaportas, S. 2006. Making a difference with a discrete course on accounting ethics. *Journal of Business Ethics* 65 (4): 391–404.

Deloitte LLP. 2003. Business ethics and compliance in the Sarbanes-Oxley era. Available at: http://deloitte.net/dtt/research/0,1015,cid%253D76940,00.html.

Denis, D. K. 2001. Twenty-five years of corporate governance ... and counting. *Review of Financial Economics* 10 (3): 191–212.

Denison, D. R. 1996. What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review* 21 (3): 619–654.

Derber, C., and W. A. Schwartz. 1991. New mandarins or new proletariat? Professional power at work. *Research in the Sociology of Organizations* 8: 71–96.

Deshpande, R., and F. E Webster, Jr. 1989. Organizational culture and marketing: Defining the research agenda. *Journal of Marketing* 53 (1): 3–15.

DeZoort, F. T., and A. T. Lord. 1994. An Investigation of obedience pressure effects on auditor judgments. *Behavioral Research in Accounting* 6 (Supplement): 1–30.

———, and ———. 1997. A review and synthesis of pressure effects research in accounting. *Journal of Accounting Literature* 16: 28–85.

Dirsmith, M. W., J. B. Heian, and M. A. Covaleski. 1997. Structure and agency in an institutionalized setting: The application and social transformation of control in the Big 6. *Accounting, Organizations and Society* 22 (1): 1–27.

———, M. J. Fischer, and S. Samuel. 2005. The socio-political constitution of expert systems and global knowledge expertise within Big 5 (4) public accounting firms. *The International Journal of Technology, Policy and Management* 5 (4): 361–387.

Donnelly, D., J. Quirin, and D. O'Bryan. 2003. Auditors' acceptance of dysfunctional auditor behavior: An exploratory model using auditors' personality characteristics. *Behavioral Research in Accounting* 15: 87–110.

Dykxhoorn, H. J., and K. E. Sinning. 1981. Wirtschaftsprufer perception of auditor independence. *The Accounting Review* 56 (1): 97–107.

Earley, C. E., and P. Kelly. 2004. A note on ethics education interventions in an undergraduate auditing course: Is there an Enron effect? *Issues in Accounting Education* 19 (1): 53–62.

Empson, L. 2001. Fear of exploitation and fear of contamination: Impediments to knowledge transfer in mergers between professional service firms. *Human Relations* 54 (7): 839–862.

———. 2004. Organizational identity change: managerial regulation and member identification in an accounting firm acquisition. *Accounting, Organizations and Society* 29 (8): 759–781.

Ettredge, M., J. Bedard, and K. Johnstone. 2005. An empirical test of audit budget ratcheting. Working paper, University of Wisconsin–Madison.

Eynon, G., N. T. Hill, and K. T. Stevens. 1997. Factors that influence the moral reasoning abilities of accountants: Implications for universities and the profession. *Journal of Business Ethics* 16 (12/13): 1297–1309.

Fedor, D. B., and R. J. Ramsay. 2007. Effects of supervisor power on preparers' responses to audit review: A field study. *Behavioral Research in Accounting* 19 (1): 91–105.

Ferner, A., P. Edwards, and K. Sisson. 1995. Coming unstuck? In search of the "corporate glue" in an international professional service firm. *Human Resource Management* 34 (3): 343–361.

Finn, D. W., and P. Munter. 1991. An empirical study of partner actions and ethical conflict. *OMEGA* 19 (6): 617–629.

Fogarty, T. J. 1992. Organizational socialization in accounting firms: A theoretical framework and agenda for future research. *Accounting, Organizations and Society* 17 (2): 129–149.

———, and L. P. Kalbers. 2000. An empirical evaluation of the interpersonal and organizational correlates of professionalism in internal auditing. *Accounting and Business Research* 1: 125–136.

Geary, W. T., and R. R. Sims. 1994. Can ethics be learned? *Accounting Education* 3 (1): 3–18.

Gibbins, M., S. Salterio, and A. Webb. 2001. Evidence about auditor-client management negotiation concerning client's financial reporting. *Journal of Accounting Research* 39 (3): 535–563.

Gottschalk, L. A. 1995. *Content Analysis of Verbal Behavior. New Findings and Clinical Applications*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Greenwood, R., C. R. Hinings, and J. Brown. 1990. P^2-form strategic management: Corporate practices in professional partnerships. *Academy of Management Journal* 33 (4): 725–755.

Hiltebeitel, K. M., and S. K. Jones. 1991. Initial evidence of the impact of integrating ethics into accounting education. *Issues in Accounting Education* 6 (2): 262–275.

Hoeksema, L., and G. de Jong. 2001. International coordination and management development: An application at PricewaterhouseCoopers. *Journal of Management Development* 20 (2): 145–158.

Hofstede, G., B. Neuijen, D. D. Ohayv, and G. Sanders. 1990. Measuring organizational cultures: A qualitative and quantitative across twenty cases. *Administrative Science Quarterly* 35 (2): 286–316.

———. 1998. Identifying organizational subcultures: An empirical approach. *Journal of Management Studies* 35 (1): 1–12.

Holmes, S., and S. Marsden. 1996. An exploration of the espoused organizational cultures of public accounting firms. *Accounting Horizons* 10 (3): 26–53.

Hood, J. N., and C. S. Koberg. 1991. Accounting firm cultures and creativity among accountants. *Accounting Horizons* 5 (3): 12–19.

Hooks, K. L., and J. L. Higgs. 2002. Workplace environment in a professional services firm. *Behavioral Research in Accounting* 14: 105–127.

Hopwood, A. 1976. *Accounting and Human Behavior*. Englewood Cliffs, NJ: Prentice Hall.

Journal of Accountancy (*JOA*). 1989. Update: The most popular continuing professional education courses. *Journal of Accountancy* 168 (5): 116.

Kalbers, L. P., and T. J. Fogarty. 1993. Audit committee effectiveness: An empirical investigation of the contribution of power. *Auditing: A Journal of Practice & Theory* 12 (1): 24–49.

Kaptein, M., and S. Avelino. 2005. Measuring corporate integrity: A survey-based approach. *Corporate Governance* 5 (1): 45–54.

Kerr, D. S., and L. M. Smith. 1995. Importance of and approaches to incorporating ethics into the accounting classroom. *Journal of Business Ethics* 14 (12): 987–995.

Key, S. 1999. Organizational ethical culture: real or imagined? *Journal of Business Ethics* 20 (3): 217–225.

Kohlberg, L. 1964. Development of moral character and moral ideology. In *Review of Child Developmental Research*, Vol. 1, edited by M. Hoffman, 383–431. New York, NY: Russell Sage Foundation.

LaGrone, R. M., R. E. Welton, and J. R. Davis. 1996. Are the effects of accounting ethics interventions transitory or persistent? *Journal of Accounting Education* 14 (3): 259–276.

Lampe, J. 1996. The impact of ethics in accounting curricula. *Research on Accounting Ethics* 2: 187–220.

Langenderfer, H. Q., and J. W. Rockness. 1989. Integrating ethics into the accounting curriculum: Issues, problems, and solutions. *Issues in Accounting Education* 4 (1): 58–69.

Liu, X., and D. Simunic. 2005. Profit sharing in an auditing oligopoly. *The Accounting Review* 80 (2): 677–702.

Loeb, S. E. 1988. Teaching students accounting ethics: Some crucial issues. *Issues in Accounting Education* 3 (2): 316–329.

———. 1991. The evaluation of "outcomes" of accounting ethics education. *Journal of Business Ethics* 10 (2): 77–84.

Lord, A. T., and F. T. DeZoort. 2001. The impact of commitment and moral reasoning on auditors' responses to social influence pressure. *Accounting, Organizations and Society* 26 (3): 215–235.

Lovelace, K., and B. Rosen. 1996. Differences in achieving person-organization fit among diverse groups of managers. *Journal of Management* 22 (5): 703–722.

Macintosh, N. B. 1985. *The Social Software of Accounting and Information Systems*. Chichester, NY: Wiley.

Master, M. 2002. The disconnect in ethics training. *Across the Board* 39 (5): 51–52.

McAleese, D., and O. Hargie. 2004. Five guiding principles of culture management: A synthesis of best practice. *Journal of Communication Management* 9 (2): 155–170.

McNair, C. 1991. Proper compromises: The management control dilemma in public accounting and its impact on auditor behavior. *Accounting, Organizations and Society* 16 (7): 635–653.

Morris, T., and L. Empson. 1998. Organization and expertise: An exploration of knowledge bases and the management of accounting and consulting firms. *Accounting, Organizations and Society* 23 (5/6): 609–624.

Neimark, M., and T. Tinker. 1986. The social construction of management control systems. *Accounting, Organizations and Society* 11 (4/5): 369–396.

Nelson, M. W., J. Elliott, and R. Tarpley. 2002. Evidence from auditors about managers' and auditors' earnings-management decisions. *The Accounting Review* 77 (4) (Supplement): 175–202.

Norris, D., and R. Niebuhr. 1984. Professionalism, organizational commitment and job satisfaction in an accounting organization. *Accounting, Organizations and Society* 9 (1): 49–59.

O'Reilly, C. A., J. Chatman, and D. F. Caldwell. 1991. People and organizational culture: A profile comparisons approach to assessing person-organization fit. *Academy of Management Journal* 34 (3): 487–516.

Otley, D., and B. Pierce. 1996. The operation of control systems in large audit firms. *Auditing: A Journal of Practice & Theory* 15 (2): 65–84.

Ouchi, W. G. 1979. Conceptual foundation for the design of organizational control mechanisms. *Management Science* 25 (9): 833–848.

———. 1980. Markets, bureaucracies, and clans. *Administrative Science Quarterly* 25 (1): 129–141.

Padgett, M., K. P. Gjerde, S. B. Hughes, and C. J. Born. 2005. The relationship between pre-employment expectations, experiences, and length of stay in public accounting. *Journal of Leadership & Organizational Studies* 12 (1): 82–102.
Patel, C. 2003. Some cross-cultural evidence on whistle-blowing as an internal control mechanism. *Journal of International Accounting Research* 2: 69–96.
Petra, S. T. 2005. Do outside independent directors strengthen corporate boards? *Corporate Governance* 5 (1): 55–64.
Pierce, B., and B. Sweeney. 2005. Management control in audit firms—Partners' perspectives. *Management Accounting Research* 16 (3): 340–370.
Ponemon, L. A. 1992. Auditor underreporting of time and moral reasoning: An experimental-lab study. *Contemporary Accounting Research* 9 (1): 171–189.
———. 1993. The influence of ethical reasoning on auditors' perceptions of management's competence and integrity. *Advances in Accounting* 11: 1–29.
———, and D. R. L. Gabhart. 1993. *Ethical Reasoning in Accounting and Auditing*. Vancouver, BC, Canada: CGA Canada Research Foundation.
Pratt, J., L. C. Mohrweis, and P. Beaulieu. 1993. The interaction between national and organizational culture in accounting firms: An extension. *Accounting, Organizations and Society* 18 (7/8): 621–628.
Previts, G. J., and B. D. Merino. 1998. *A History of Accountancy in the United States: The Cultural Significance of Accounting*. Columbus, OH: The Ohio State University Press.
Public Accounting Report (PAR). 2006a. Firms ring in new year with mergers: Seven deals involve PAR top 100 firms. *Public Accounting Report* (January 15): 1–4.
———. 2006b. SEC clients continue downstream moves: Non-Big 4 take larger percentage from Big 4; regional firms scoop up more national firm clients. *Public Accounting Report* (January 31): 6.
Public Company Accounting Oversight Board (PCAOB). 2003. *Interim Standards*. Available at: http://pcaob.org/Standards/Interim_Standards/index.aspx.
———. 2004a. *Standing Advisory Group Meeting*. Potential standard—Quality control standards. Available at: http://www.pcaobus.org/News_and_Events/Events/2004/06-21-22.aspx.
———. 2004b. *Standing Advisory Group Meeting*. Potential standard—Elements of quality control. Available at: http://www.pcaobus.com/Standards/Standing_Advisory_Group/Meetings/2004/11-17/Quality_Control.pdf.
Public Oversight Board (POB). 2000. *The Panel on Audit Effectiveness: Report and Recommendations*. Available at: http://www.pobauditpanel.org/download.html.
Reigle, R. F. 2001. Measuring organic and mechanistic cultures. *Engineering Management Journal* 13 (4): 3–8.
Rest, J. R. 1979. *Development in Judgment Moral Issues*. Minneapolis, MN: University of Minnesota Press.
Rose, N. 1988. Calculable minds and manageable individuals. *History of Human Sciences* 1 (1): 170–200.
Salterio, S. 1994. Researching for accounting precedents: Learning, efficiency, and effectiveness. *Contemporary Accounting Research* 11 (1): 515–542.
———, and R. Denham. 1997. Accounting consultation units: An organizational memory analysis. *Contemporary Accounting Research* 14 (4): 669–691.
Sarros, J. C., J. Gray, I. L. Densten, and B. Cooper. 2005. The organizational culture profile revisited and revised: An Australian perspective. *Australian Journal of Management* 30 (1): 159–182.
Schuetze, W. 1994. A mountain or a molehill? *Accounting Horizons* 8 (1): 69–75.
Securities and Exchange Commission (SEC). 1993. *In the matter of K. Clark Childers, CPA, and Paul J. Arguy, CPA*. Accounting and Auditing Enforcement Release Number 455. Washington, D.C.: Government Printing Office.
Shafer, W. E., D. J. Lowe, and T. J. Fogarty. 2002. The effects of corporate ownership on public accountants' professionalism and ethics. *Accounting Horizons* 16 (2): 109–124.

Shaub, M. K. 1994. An analysis of the association of traditional demographic variables with the oral reasoning of auditing students and auditors. *Journal of Accounting Education* 12 (1): 1–26.

Sikka, P. 2004. Some questions about the governance of auditing firms. *International Journal of Disclosure and Governance* 1 (2): 186–199.

Sims, R. R. 1992. The challenge of ethical behavior in organizations. *Journal of Business Ethics* 11 (7): 505–513.

Sinclair, A. 1993. Approaches to organizational culture and ethics. *Journal of Business* 12 (1): 63–73.

Smith, A., and E. C. Hume. 2005. Linking culture and ethics: A comparison of accountants' ethical belief systems in the individualism/collectivism and power distance contexts. *Journal of Business Ethics* 62: 209–220.

Snead, K., and A. Harrell. 1991. The impact of personality factors on the job satisfaction of senior accountants. *Behavioral Research in Accounting* 3: 85–96.

Soeters, J., and H. Schreuder. 1988. The interaction between national and organizational cultures in accounting firms. *Accounting, Organizations and Society* 13 (1): 75–85.

Sweeney, B., and B. Pierce. 2004. Management control in audit firms: A qualitative examination. *Accounting, Auditing & Accountability Journal* 17 (5): 779–812.

Telberg, R. 2004. Two firms launch new ethics programs. *Journal of Accountancy* 198 (1): 13–16.

Thomas, C. W., C. E. Davis, and S. L. Seaman. 1998. Quality review, continuing professional education, experience and substandard performance: An empirical study. *Accounting Horizons* 12 (4): 340–362.

Thornbury, J. 1999. KPMG: Revitalizing culture through values. *Business Strategy Review* 10 (4): 1–15.

Toffler, B. L., and J. Reingold. 2003. *Final Accounting: Ambition, Greed, and the Fall of Arthur Andersen.* New York, NY: Random House.

Trevino, L. K., K. D. Butterfield, and D. L. McCabe. 1995. Contextual influences on ethics-related outcomes in organizations: Rethinking ethical climate and ethical culture. Working paper presented at the annual Academy of Management meeting, Vancouver, BC, Canada, August.

———, ———, and ———. 1998. The ethical context in organizations: Influences on employee attitudes and behaviors. *Business Ethics Quarterly* 9 (3): 447–476.

Trice, H. M., and J. M. Beyer. 1993. *The Cultures of Work Organizations*. Englewood Cliffs, NJ: Prentice Hall.

Trompeter, G. 1994. The effect of partner compensation schemes and generally accepted accounting principles on audit partner judgment. *Auditing: A Journal of Practice & Theory* 13 (2): 56–68.

Van den Berg, P. T., and C. P. M. Wilderom. 2004. Defining, measuring, and comparing organizational cultures. 2004. *Applied Psychology: An International Review* 53 (4): 570–582.

Vera-Muñoz, S. C., J. L. Ho., and C. W. Chow. 2006. Enhancing knowledge sharing in public accounting firms. *Accounting Horizons* 20 (2): 133–155.

Viator, R. E. 1999. An analysis of formal mentoring programs and perceived barriers to obtaining a mentor at large public accounting firms. *Accounting Horizons* 13 (1): 37–53.

———. 2001. The association of formal and informal public accounting mentoring with role stress and related job outcomes. *Accounting, Organizations and Society* 26 (1): 73–93.

———, and W. R. Pasewark. 2005. Mentorship separation tension in the accounting profession: The consequences of delayed structural separation. *Accounting, Organizations and Society* 30 (4): 371–387.

Wallach, E. J. 1983. Individuals and organizations: The cultural match. *Training and Development Journal* 37 (2): 29–36.

Warth, R. J. 2000. Ethics in the accounting profession: A study. *The CPA Journal* 70 (10): 69–70.

Welton, R. E., R. M. LaGrone, and J. R. Davis. 1994. Promoting the moral development of accounting graduate students: An instructional design and assessment. *Accounting Education* 3 (1): 35–50.

Wyatt, A. R. 2004. Accounting professionalism—They just don't get it. *Accounting Horizons* 18 (1): 45–53.

Zeff, S. 2003. How the U.S. accounting profession got where it is today: Part II. *Accounting Horizons* 17 (4): 267–286.