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A Live Simulation-Based Investigation: Interactions with Clients and Their Effect on Audit Judgment and Professional Skepticism

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SUMMARY: Threats to professional skepticism are embedded in the social relationships and interactions between auditors and management. These can affect auditor skepticism and the extent of audit procedures performed. In this study, we conduct an experiment using live simulation to create a realistic audit setting to investigate the effect of these interactions on professional skepticism. Each participant (n = 49) completed a measure of trait skepticism and conducted an audit interview with a professional actor trained to play the role of a client controller. Findings indicate that, in general, participants who interview a friendly controller (rather than an intimidating controller) are less likely to determine questionable cash disbursements to be control exceptions and less likely to recommend more intensive follow-up. However, consistent with social psychology research on construct accessibility, planned contrasts indicate that participants who score low on trait skepticism are least likely to identify control exceptions and recommend more intensive follow-up when interviewing a friendly controller. This study advances research on professional skepticism by examining the impact that type of social interaction (friendly, intimidating) has on professional skepticism using a methodology (live simulation) that allows us to simulate a realistic audit environment. Use of this methodology increases external validity and generalizability of our findings. As a result, this study corroborates concerns that the social relationships/interactions between management and the auditor can be a threat to professional skepticism, and allows us to understand better how, when, and where these threats occur.

Keywords: professional skepticism; interview; live simulation; audit.

INTRODUCTION

Auditor-client interactions are key to obtaining audit evidence (Haynes 1999). However, the Public Company Accounting Oversight Board (PCAOB) has indicated that these interactions can affect audit judgment and threaten professional skepticism. For example, the PCAOB (2012) Staff Practice Alert No. 10 draws attention to overreliance on management inquiry (e.g., management interviews). The Practice Alert argues that, in contradiction with auditing standards, auditors have the tendency to accept less persuasive evidence because they believe management to be honest (PCAOB 2012, 1). Further, existing literature suggests that interacting with friendly, amicable, cooperative clients (versus unfriendly, intimidating, uncooperative clients) can affect auditor judgment and the auditor's professional skepticism (e.g., Bhattacharjee and Moreno 2002; Bhattacharjee, Moreno, and Riley 2012; Chung, Cohen, and Monroe 2008; Robertson 2010).

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In this study, we utilize a live simulation to examine the effect of the client's interpersonal style on auditor judgment (e.g., Trotman, A. Wright, and S. Wright 2005; Bennett and Hatfield 2013). Specifically, we use the auditor-client interview as our institutional setting, because it provides a unique setting to study the interaction between the auditor and client and how that interaction can affect auditor judgment.

Prior research has considered many of the cognitive (Nelson 2009) and non-cognitive (Hurtt, Brown-Liburd, Earley, and Krishnamoorthy 2013) factors that can affect an auditor's level of professional skepticism. However, little research has focused explicitly on how specific features of the auditor-client interview impact auditor skepticism. While there has been little work that specifically targets the auditor-client interview, existing research has provided evidence into how features of the interpersonal nature of the auditor-client relationship might affect auditor behavior. For example, a client's cooperation with the auditor (Wolfe, Mauldin, and Diaz 2009; Hatfield, Houston, Stefaniak, and Usrey 2010; Brown-Liburd and Wright 2011; Gibbins, McCracken, and Salterio 2010; Fu, Tan, and Zhang 2011) and client personality characteristics (Bhattacharjee and Moreno 2002; Bhattacharjee et al. 2012; Chung et al. 2008; Robertson 2010; Blay, Kadous, and Sawers 2012) have been found to affect auditor judgment. These studies manipulate key features of hypothetical auditor-client interactions using written narratives. The results from these studies provide a high degree of internal validity and provide support for hypotheses suggesting that a client's interpersonal style can affect auditor decisions.

However, while the above studies utilize written narratives to represent auditor-client interactions, actual face-to-face communication provides a richer communication environment (e.g., including non-verbal communication, vocal intonation), as described by information richness theory (Daft and Lengel 1984, 1986), that can affect the outcome of auditor-client interaction (Saiewitz and Kida 2017). Further, dyadic oral communication, such as the auditor-client interview, can produce significant fear and anxiety (McCroskey 1984; Bennett and Hatfield 2013) that is not easily duplicated in a pencil-and-paper task. Thus, the *a priori* knowledge of whether a client interviewee is generally friendly or unfriendly does not necessarily elicit the same emotional response and contribute the same information as interacting with a friendly or unfriendly person in an interview setting. This argues for the use of a dynamic interactive interview setting.

Thus, we utilize live simulation to study this critical auditor-client interaction (e.g., Trotman et al. 2005; Bennett and Hatfield 2013). Live simulation is the use of actors trained in interactive performance, which moves the non-actors with whom they interact from a detached cognitive level to an emotional level at which the impact of attitudes on behavior can best be simulated (Cossa, Ember, Glass, and Russell 2013). Thus, it can be used to create realistic manipulations of the environment that allow the researcher to more directly examine the interpersonal relationship between the auditor and client personnel, and evaluate how that relationship might affect professional skepticism. As a result, we are able to provide evidence that is higher in external validity to complement the work of others who have tested similar theories using more traditional narrative methodologies.

We use live simulation to conduct an experiment to examine the extent to which skeptical judgments and actions resulting from client interviews are affected by (1) interaction with client personnel who, by design, have different interpersonal styles, and (2) an individual's inherent level of skepticism (i.e., trait skepticism). Specifically, controlling for the level of individual trait skepticism, we examine how interviewing a friendly versus an intimidating client can affect an auditor's skeptical judgements. Further, relying on decades of social psychology research into personality traits and environment-specific factors (i.e., the interpersonal style of specific client personnel; see Kihlstrom [2013] for a discussion of "trait versus state" research), we also consider the extent to which the interaction between these two factors might affect auditor judgment.

This study is grounded in existing literature (Nelson 2009; Hurtt 2010; Hurtt et al. 2013) that acknowledges the importance of an individual's inherent level of trait skepticism. It is guided by a conceptual framework that draws upon implicit personality theory, the halo effect, and chronic accessibility theory.[1]

The study was conducted in two phases. First, approximately two weeks prior to the live simulation phase, participants completed the Hurtt Professional Skepticism Scale (Hurtt 2010). In the second phase, using a live simulation method, participants interviewed a trained actor (playing the role of client controller) to determine the nature of several cash disbursements that had been identified as potential internal control exceptions. Participants were randomly assigned to a setting in which the actor played the role of either a friendly or intimidating client. Following the interview, the participants assessed, for each cash disbursement in question, whether it represented a control exception and the extent to which additional audit effort was required.

Our results demonstrate that client interpersonal style (friendly versus intimidating) and trait skepticism both affect auditor behavior. In particular, participants who interviewed a friendly client were less likely to judge questionable disbursements to be control exceptions and less likely to recommend more extensive additional testing. Further, participants with lower levels of trait skepticism were less likely to judge questionable disbursements to be control exceptions and less likely to recommend

[1] Our use of live simulation is informed by information richness theory (see the "Methods" section).

more extensive additional testing. Interestingly, analyzing the interaction with planned contrast suggests that personality and situational factors have unique and separate influences on audit judgment and decision making—either can result in heightened professional skepticism. However, auditors with lower levels of trait skepticism were more susceptible to decreasing their professional skepticism when interviewing a friendly client.

This paper contributes to the study of professional skepticism by examining social interactions in auditor-client interviews as a threat to professional skepticism using a realistic audit environment that increases external validity and generalizability. As a result, this study corroborates concerns that the social relationships/interactions between management and the auditor can be a threat to professional skepticism. The generalizability of the findings provides a contribution to the literature on client intimidation, as described by regulators (Institute of Chartered Accountants in England and Wales [ICAEW] 2003) and research (Bennett and Hatfield 2013).

LITERATURE REVIEW AND HYPOTHESES

Auditor-Client Interactions and Client Interpersonal Style

Auditor-Client Interactions

Client inquiry is a common form of auditor-client interaction, and it is used extensively throughout the audit, frequently as a complement to other audit procedures (PCAOB 2010, AU 326).[2] Client inquiry is a necessary source of evidence because the client may be the only reasonable source of information, thus impacting audit efficiency (Anderson, Koonce, and Marchant 1994). As a specific form of client inquiry, audit interviews play a critical role in the audit (American Institute of Certified Public Accountants [AICPA] 2012; Bhattacharjee et al. 2012; Nelson and Tan 2005).[3]

One salient aspect of the auditor-client interaction is the client's interpersonal style. Prior research has shown that a client's interpersonal style affects the extent to which the auditor is skeptical of the client in certain contexts, but not others. For example, prior work reports that auditors are less critical of cooperative clients' IT controls (but not of manual controls; Wolfe et al. [2009]); more likely to accept smaller asset write-offs (Hatfield et al. 2010; Brown-Liburd and Wright 2011); and less committed to the goal of reducing reported earnings (Gibbins et al. 2010). However, Fu et al. (2011), using a sample of partners and managers in a negotiation setting, report that more experienced auditors may be less affected by the extent to which the client cooperates.[4]

Prior work has also examined how different client characteristics (e.g., condescending, mean, unhelpful, discourteous, friendly, ingratiating, helpful, courteous) affect auditor judgment (Bhattacharjee and Moreno 2002; Bhattacharjee et al. 2012; Chung et al. 2008; Robertson 2010). In general, these studies have found auditors to be less critical (e.g., require smaller inventory write-downs) of clients who are friendly and helpful.[5] These prior studies tend to use written descriptions of the client rather than actual interactions with client personnel, and it is unclear how well behaviors and judgments occurring in response to manipulations based on written descriptions translate to actual audit practice. For example, experiencing a face-to-face interaction with a client may not be equivalent to reading a written narrative that describes a client, because it is possible that the actual interview setting provides a great deal of additional information (e.g., non-verbal communications; see Daft and Lengel 1984, 1986) and/or can trigger emotional states that have an impact on judgments and decisions (Lowenstein and Lerner 2000). Thus, due to the unique challenges presented by interactive face-to-face dialogues, we contend that researchers should employ interactive face-to-face methodologies to better understand their impact on audit decision making.

To this point, Bennett and Hatfield (2013) considered how the extent of evidence collection and the quality of documentation might be affected by the need to interview an intimidating client versus a neutral client versus simply contacting the client via email. The results suggest that intimidating clients can threaten professional skepticism to the extent that they deter sufficient accumulation of audit evidence. These findings seem to contradict the written narrative-based affect literature cited above that suggests that intimidating clients may enhance skepticism.

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[2] Auditing standards (AS) describing inquiry as an audit procedure include AS Nos. 5, 12, 13, and 15.

[3] Although auditing standards require interviewing, they do not specify how to conduct interviews. In this paper, we do not teach our participants effective audit interview skills (an information-gathering technique used to obtain audit evidence or a type of audit evidence). Rather, we rely on the interview skills that they have learned from their existing experience, education, and training. There are different skills that can be learned from interviewing (which are different than skills used by fraud investigators or law enforcement in interrogation that, in nature, seek to gain an admission).

[4] The different inferences from these studies could be a result of the experience level of participants (e.g., more experienced participants are less affected by the behavior of the client) or the decision context (audit judgments are inherently different than negotiations).

[5] However, Blay et al. (2012) find that risk, auditor motivation, and task complexity may mitigate such findings. Specifically, they provide evidence that client affect impacts the auditor's search for information such that negative affect improves efficiency when risk is high, but not when risk is low, and positive affect decreases search efficiency when risk is low, but not when risk is high.

To further examine this issue, we conduct a live simulation study of the client interview situation in which we manipulate client interpersonal style (friendly versus intimidating). We address the issue in this manner for three reasons. First, this methodology extends previous work by placing a greater focus on external validity. Second, it addresses an issue raised by Bennett and Hatfield (2013), who suggest that intimidating clients may limit the auditor's effort to ask for critical evidence. This suggests that intimidating clients can negatively affect evidence collection and, thus, potentially reduce audit quality.[6] Third, adding a friendly personality style builds on social cognition research that identifies a judgment bias: "nice people do not do bad things" (O'Donnell and Schultz 2005). This body of research, as discussed in the next section, suggests that we might actually see less asking for critical evidence in the friendly condition, relative to the intimidating one. Thus, it may be the case that interacting with friendly clients, rather than intimidating ones, leads to less skeptical behavior and lower audit quality.

Friendly Clients

When individuals present themselves as friendly or likeable, they create a positive affect that can impact judgment and behavior with others (Forgas 1995). Such findings are consistent with the implicit personality theory and the related "halo effect" (O'Donnell and Schultz 2005), which argue for a heuristic bias in evaluation of risk. This heuristic describes a tendency to use global evaluations to make judgments about specific traits (e.g., the logical fallacy that nice and attractive people do not do bad things; see Thorndike 1920; Nisbett and Wilson 1977). Thus, social psychology research suggests that positive affect, derived from friendly communications between auditors and clients, could have a profound negative impact on auditors' professional skepticism, resulting in reduced audit quality. For example, in an interview setting, this could suggest that client affect may cause auditors to trust management and reduce the extent to which the auditor deems additional information is necessary to corroborate management representations. Conversely, negative affect derived from intimidating communications between auditors and clients could enhance an auditor's professional skepticism, resulting in increased audit quality (Nisbett and Wilson 1977). In the next section, we describe accounting research that supports this impact for intimidating clients.

Intimidating Clients

In contrast to friendly or helpful clients, intimidating individuals can be seen as being "gruff, austere, and impatient with shoddy performance" (Bolino and Turnley 2003a, 238) and not suffering fools. Intimidation is described as a threat to audit quality (Bennett and Hatfield 2013; ICAEW 2003, 6). For example, the ICAEW (2003) states that intimidation occurs when an audit team member is deterred from "acting objectively and exercising professional skepticism," and notes that dominant personalities in senior positions can cause such intimidation when dealing with auditors. Bennett and Hatfield (2013) describe intimidation as occurring when clients question the auditor's knowledge or experience, make condescending remarks, and express remarks indicating frustration with being interrupted.

Like Bennett and Hatfield (2013), we utilize a live simulation design that creates a here-and-now interaction between the auditor and client. This allows us to explicitly examine how direct interactions with client personnel, who vary in interaction styles, affect professional skepticism. Given the findings of prior studies, we state the following hypothesis concerning auditor judgments and decision making:

H1: Auditors who interview client personnel displaying an intimidating interpersonal style exhibit more skepticism. Specifically, these auditors will be more likely to classify questionable disbursements as control exceptions and recommend more extensive follow-up audit procedures than auditors who interview client personnel displaying a friendly interpersonal style.

Inherent (Trait) Professional Skepticism

Both Nelson (2009), in his review of auditor skepticism literature, and Hurtt (2010), in her development of the Hurtt Professional Skepticism Scale (HPSS), have shaped our understanding of professional skepticism. Based on his review, Nelson (2009) proposes a theoretical model in which differences in auditors' personality traits and background (e.g., experience, knowledge) are among the multiple factors that affect auditor skepticism. Hurtt (2010) acknowledges that audit engagement-specific variables are important in driving skeptical behavior. However, the primary thrust of Hurtt's (2010) work was to develop an instrument to measure skepticism as a personality trait. Trait skepticism (as reflected by scores on the HPSS) is defined as a trait propensity to engage in skeptical thought or behavior during the conduct of an audit.

[6] Similarly, the concern is expressed by the ICAEW (2003), which states that intimidation can have a negative impact on professional skepticism.

Consistent with Nelson (2009) and Hurtt (2010), experimental studies indicate that individuals who score at the high end of the HPSS (i.e., have a score consistent with the presence of trait skepticism) tend to identify more contradictions when reviewing work papers, and generate a greater number of alternative explanations than do individuals who score lower on the HPSS (Hurtt, Eining, and Plumlee 2014). Also, Quadackers, Groot, and Wright (2014) find more skeptical individuals to be less reliant on management explanations than less skeptical individuals.[7] Further, individuals with high HPSS are more likely to focus on fraud cues (Popova 2013). These findings suggest that more skeptical auditors are likely to conduct more thorough examinations of audit evidence and more willing to question potentially troubling audit findings. Given the prior work in the area, we present the following hypotheses:

H2: After interviewing client personnel about questionable disbursements, more skeptical auditors will be more likely to classify questionable disbursements as control exceptions and recommend more extensive follow-up audit procedures than less skeptical auditors.

Trait Skepticism by Client Interpersonal Style Interaction

Research in personality and clinical psychology sheds light on how the trait of skepticism operates in the context of situational influences, such as client interpersonal style, and enhances understanding of the mechanism underlying the influence of the trait of skepticism on audit judgment and behavior. In brief, this research suggests that (1) highly skeptical auditors have structures (e.g., schemas) that link errors/fraud and various types of audit evidence together with specific audit judgments and action tendencies, and (2) these structures are chronically accessible in memory (Eysenck, MacLeod, and Mathews 1987; Martin, Ward, and Clark 1983; Mayer and Volanth 1985). This chronic accessibility results in a consistency in skeptical judgment and behavior that can be observed across time and across situations (i.e., types of clients and types of interactional styles; Bargh, Lombardi, and Higgins 1988; Bargh and Pratto 1986; Fazio, Powell, and Williams 1989). Alternatively, individuals who score low on the trait of skepticism do not have such structures chronically accessible in memory and, therefore, will not demonstrate consistency in skeptical judgment across time and situations. This lack of consistency will manifest in variability related to environmental cues—in particular (as is relevant to this study), client personal style.

Consistent with this theoretical explanation for the effect of trait skepticism on audit judgement and behavior, Popova (2013) found an interactive effect of trait skepticism and client type (cooperative versus argumentative and potentially dishonest client) on auditor behavior whereby high HPSS auditors were more skeptical in performing the audit task regardless of type of client. However, low HPSS auditors were only more skeptical when they were provided information that the client was argumentative and potentially dishonest.

We extend Popova's (2013) work by having participants engage in a live one-on-one auditor-client interview task that closely resembles a real-world auditor-client encounter with an intimidating or a friendly client. Specifically, we test the following hypothesis:

H3: Individuals with low levels of trait skepticism who interview a client with a friendly interpersonal style will be least likely to classify questionable disbursements as control exceptions and recommend less extensive follow-up audit procedures, in contrast with those with high levels of trait skepticism, whose audit judgments and recommendations will vary little regardless of client interpersonal style.

METHODS

Sample

All study participants were enrolled in a graduate accounting program at a single large state university.[8] Master's students were used because live simulation demands a significant time investment from participants and the use of a specific research location with research resources. Further, they have a strong accounting education background and limited work experience and, therefore, as a population, can proxy for early career staff (see Abdolmohammadi 1999). Accordingly, in interactive experiments in audit research, Master's students have been viewed as an appropriate convenience sample (Bennett and Hatfield 2013). This work argues for students being an appropriate population for our study. Finally, given the specific nature of the experimental tasks (i.e., reviewing signatures and initials, determining that controls were operating, and

[7] This is consistent with findings in social psychology research that link traits with behaviors (e.g., Bargh and Pietromonaco 1982).

[8] Approval for this experiment's use of human subjects was approved by the university's Institution Review Board (IRB).

TABLE 1

Univariate Descriptive Statistics of Dependent Variables by Client Personality Style

	Client Interpersonal Style		
	Friendly (n = 26)	**Intimidating (n = 23)**	**p-value**
Mean Skepticism (HPSS)	133.60 (13.56)	138.00 (11.25)	0.21
Experience:			
Mean Years of Post-HS Work Experience	5.24 (4.46)	5.39 (5.08)	0.91
% Experience Working for Accounting Firm	41%	87%	0.001
% Experience Auditing Cash	22%	39%	0.18
% Experience Testing Controls	15%	30%	0.19

Experience variables are dichotomous and are tested using a Chi-square test. Years of work experience and HPSS are continuous variables and tested using a t-test.

client inquiry), inexperienced personnel are appropriate participants in accordance with Abdolmohammadi's (1999) audit task taxonomy.

Approximately two weeks prior to the study, students were given the opportunity to earn extra course credit by completing a preliminary survey assessing work experience and skepticism. All students who completed the preliminary survey were invited to participate in the current study. Fifty-one participants (40 percent [51/126] of those who completed the initial survey) were randomly assigned to one of two client interpersonal style conditions (i.e., friendly or intimidating).[9] Of these 51 participants, the responses from two participants were excluded because they were either unable to complete the audit judgment portion of the study or they failed to supply a complete set of usable answers. This resulted in a final sample of 49 for data analysis. Twenty-four of the 49 were female.[10] Sixty-three percent of the study sample had experience working for an accounting firm, and 31 percent had experience auditing cash. Most participants had significant classroom experience in auditing: 53 percent had completed one auditing course; 42 percent had more than one auditing courses.

Chi-square tests indicated that there were no significant differences between participants assigned to the friendly and intimidating client conditions with respect to professional skepticism ($p = 0.21$). Further, they did not differ with respect to work experience involving auditing cash or testing controls ($p = 0.18$, $p = 0.19$, respectively). The two groups did differ with respect to experience working for an accounting firm ($p = 0.001$): Those in the friendly condition (41 percent) were less likely to report working for an accounting firm than those in the intimidating condition (87 percent; see Table 1).

Experimental Task Design

The experimental materials require the participant auditors to perform internal control testing over cash disbursements. Internal control testing was chosen as the experimental task to be consistent with the tasks performed by auditors with an equivalent experience level to our participants. Specifically, the materials include six checks (i.e., cash disbursements; see Table 2 for a description) for consideration. Participants were told that these checks were identified by another staff auditor as being related to transactions that may be control exceptions that warrant additional explanation from the client's controller. These potential exceptions relate to testing of various controls, including checks being signed by authorized signers within their approval limits, vendors being located in vendor master files, and a requirement for two signers for checks over $10,000. To complete the task, the participants were also provided with a complete list of internal control procedures to be tested, a vendor master file, and the company's signature authorization limits.

[9] We note a high level of attrition; many students who completed the first part of the study did not elect to participate in the second part. We surmise that the significant time cost on the part of the students outside of class is the reason for the large attrition.

[10] In additional analyses, gender was included as a control variable. However, it was not significant and, therefore, was not included in the reported analyses.

TABLE 2

Description of the Six Checks Given to Participants in the Study

Check Number	Description
1	Payee was not on auditee's approved vendor list.
2	The signature on the check did not match the signature on file. (During live simulation phase, participant learns that the check signer broke his hand and signed with left hand.)
3	Controller's secretary signed on behalf of controller, and controller initialed check.
4	Check amount exceeded signer's approved disbursement level by $0.10.
5	Check signer signed above authorized amount, but the disbursement was caught and initialed by controller.
6	A check over $10,000 had two required signatures, but only one of the signers was approved for a disbursement above $10,000.

Checks are presented in the order of presentation to participants and do not correspond to the degree with which they may represent a control deficiency.

The six checks/cash disbursements were designed to represent various levels of severity of control deficiency.[11] We consulted with a panel of 11 experts on the design of materials.[12] These experts provided an assessment of the extent to which each disbursement represented a control deficiency. The experts were provided with a description of the transactions in question. They were also provided with the explanations that would be used by the client controller, when questioned in the live simulation interview, to explain to the participant why the transaction did not represent a control exception. Four of the checks (checks 1, 3, 5, and 6) were assessed to be control exceptions by over 70 percent of the experts. Alternatively, for checks 2 and 4, less than 50 percent of the experts deemed them to be likely control exceptions.

Further, we pre-tested the checks with 39 students during the academic year prior to conducting the experiment. This population is similar to the participants described in this paper with respect to educational background and level of work experience. These students assessed whether disbursements were control exceptions and recommended an audit follow-up response. The results from the expert panel and the student pre-test are consistent with agreement of which disbursements were exceptions. Over 67 percent of students assessed each of checks 1, 3, 5, and 6 to be control exceptions, while less than 45 percent believed checks 2 or 4 to be control exceptions.

Procedure

After obtaining informed consent, participants received experimental materials. They then watched an instructional video about testing the client's control system and six questionable cash disbursements that had been noted by another member of the engagement team. After this video, they were informed that they would be meeting with Peter, the client controller, to gather additional information on these cash disbursements and to determine whether each check represented a control exception. Participants were then given time to review the materials and ask questions. Typically, participants took approximately ten minutes to review the materials and ask questions. However, some took longer, taking time to draft questions to ask the controller and repeatedly going over the materials. All participants were given as long as needed, but after 15 minutes, a research assistant directed them to let him know when they were "ready" as a verbal prompt to finish their preparation.

Next, participants were escorted to an office where the live simulation would be conducted. At the door, a research assistant instructed them to knock and introduce themselves to "Peter," the controller. At the end of the live simulation, the participant left the office and was escorted by a member of the research team (who did not allow participants to talk with one another) to another private office space to complete the audit judgment measures. When these measures were completed, participants were debriefed, given a $25 gift card in exchange for their participation, and instructed to not discuss their experiences until after they had been notified that the data collection had been finished.

[11] Disbursements were constructed at various levels of gray areas in which each disbursement could be considered a control exception. For example, the client breaking an arm and signing with his opposite hand was a low violation; having one of the signers' approval limits under $10,000 for a large check was a bigger violation.

[12] This panel included seven auditing educators and four professionals. The four professionals were all auditors, including three partners and one senior manager of global accounting firms.

Live Simulation

The study of the auditor-client interview necessitates the use of an interactive method (e.g., live simulation). A written narrative, although high in internal validity, still does not replicate the social interaction of a conversation between auditors and clients. Live simulation is an interactive research methodology that adds an element of realism not possible with traditional experimental instruments or the use of other media, such as videos.[13] Therefore, in this study, we use professional actors to conduct a live simulation-based experiment to examine skepticism as a function of the auditor-client interview process.

The use of professional actors trained in improvisation and interactive performance to portray individuals in live simulations has substantial benefits when attempting to study "real world" interactions. This training enables actors to play the role of a particular character, in our case, a controller for a client, and engage a non-actor in an acting experience (Wirth 1994). Due to the experience and training of the actor, the non-actor cannot help but become engaged in interaction with the actor and the experience is described as realistic (Norris, Aroian, Warren, and Wirth 2012). This experience moves the non-actors from a detached cognitive level to an emotional level at which attitudes and behaviors can best be simulated (Cossa et al. 2013). For example, Norris, Hughes, Hecht, Peragallo, and Nickerson (2013) used interactors acting as puppeteers to provide the voices, gestures, and other movements of avatars as they talked with early adolescent girls as part of a simulation of peer pressure experiences. Girls left this experience talking about specific characters they interacted with as if they were real people, even though the avatars themselves are designed to resemble cartoon versions of other adolescents. Similar effects are observed in TeachLivE (Hayes, Straub, Dieker, Hughes, and Hynes 2013), which uses interactors as part of a middle school classroom simulation that trains teachers and student teachers in classroom management. For example, teachers request additional time because they are confident they know what to do to reach one of the acting-out student characters. Here, we combine the benefits of using professional actors with extensive training in improvisation and interactive performance without the costs of creating avatars and using digital puppetry to create a live and real-feeling simulation of what entry-level auditors would experience in the course of performing an audit. Thus, our use of simulation allows actual face-to-face communication, increasing the "information richness" (Daft and Lengel 1984, 1986) of the auditor-controller encounter and more closely approximating real-life encounters.

While live simulation can increase the external validity of an experiment, steps must be taken to ensure that internal validity is not needlessly sacrificed. In the current study, the internal validity of the simulation manipulation is analogous to concerns in intervention research regarding the fidelity of the intervention involved (Shelestak and Voshall 2014). In intervention research, one needs to establish that the intervention is delivered as it is designed and intended to be delivered to have support for the internal validity (i.e., fidelity) of the intervention. Protocols, training, and supervision are required, but not sufficient to support fidelity (Dumas, Lynch, Laughlin, Smith, and Printz 2001). Evaluation of actual intervention delivery is required to determine whether fidelity is present. In the present study, we met both of these requirements. First, we used protocols, training, and supervision. The protocols and training were developed by the authors in collaboration with the director of the interactors involved in our simulation, who also provided supervision of the simulation delivery using standard techniques. Second, delivery of the simulation was evaluated by determining whether all interactors were consistent in their delivery of critical information, as recommended in health care simulation research (Shelestak and Voshall 2014). This evaluation indicated that the interactors were consistent for 98 percent of the simulations. The following text provides additional detail on the design of the manipulations.

We train professional actors, who already have extensive training in improvisation and interactive performance, in audit terms and practices and provide them a set of actions to follow (e.g., how to discuss why a particular check was approved when, according to internal control practices, it should not have been) to enable them to act as a controller in our live simulation. Using a description of the affect (friendly, intimidating) and the role of a controller, these actors develop a character ("Friendly Peter," "Intimidating Peter") with a personality. They then use their improvisational skills to bring this character to life with particular voice qualities, non-verbal mannerisms, facial expressions, etc. Thus, we are able to simulate and manipulate an interaction with a controller by varying the "personality" of the controller.

During the live simulation, the participant interviewed the "controller" about each of the six checks to gather information to determine whether the disbursement represented a control exception. Each interview was taped using two video cameras: one

[13] However, although the live simulation creates a realistic interview setting where participants can ask questions and be provided with unique responses in return, some control is sacrificed in terms of the consistency of experimental experience across interview subjects. To minimize this threat, it is important to have experienced, highly skilled interactors who are trained to ensure that all required content is presented (i.e., all disbursements are discussed), and that it is presented in a consistent manner across participants within the experimental condition. Of note, the average interview lasted 15.8 minutes. There was a statistical difference between the interviews for either the friendly or intimidating conditions (18.2 minutes versus 13.2 minutes, $p = 0.0007$). To address this, we tested our models using the natural log of the length of the interview in minutes as a control variable. Length of interview was not significant ($p > 0.33$) in these additional analyses.

was positioned over the shoulder of the interactor, facing the participant; the second was positioned over the shoulder of the participant, facing the interactor.

Three different men played the role of Peter, the "controller," in the live simulation.[14] All had been trained by the authors regarding the nature of the external audit, the roles of controllers and entry-level auditors, the logic and purpose of internal controls, commonly used terminology, and the nature of audit interviews. Further, the three interactors worked closely together to develop character nuances, expressions, and responses. During the study, these interactors never broke character. For example, when the interview was over, the interactor would either dismiss the participant (intimidating condition) or give him or her a friendly goodbye (friendly condition) and include a reference to a future meeting related to either follow-up information the participant had requested or the next annual audit. The three interactors were all trained to portray both types of client interpersonal styles, and they rotated between the two different styles over the five different days of data collection so that each "played" both types of clients on any one data collection day.

To ensure consistency throughout the experiment, basic scripts were created for each Peter, including introduction and interview conclusions sequences, as well as specific responses for why each check was not a control exception. It should be noted that the interactors provided consistent information to auditors regardless of the character's interpersonal style. For example, regardless of the interactor's client interpersonal style, the explanation given for check number two was always that the authorized signer had broken his right hand on a weekend outing and, therefore, was forced to sign checks with his left hand. Thus, the objective information provided to the participants did not vary by client interpersonal style condition.[15] Further, after each round of interviews, the interactors would collaborate to discuss how they responded to questions to ensure that their characters were consistent across the Peters.

The client interpersonal styles portrayed in this study were the result of the study team and the director of the interactors working together to create two different "Peters." These two different characters were pre-tested with a separate class of accounting graduate students (different from the other pre-test student subjects described above) six months prior to conducting the study described here. Pre-testing revealed that the characters portraying these interpersonal styles were believable and that the students—half of whom had public accounting experience—consistently reported that the situations felt very real, even though they knew they were engaging in a live simulation of an audit interview. Participants would often comment to the research staff that the interview with the controller was "just like what happened to me when I was working on . . ." (i.e., a specific client engagement in which they were conducting an audit of control exceptions). As discussed below, each Peter (intimidating and friendly) was based on the characteristics of interpersonal styles described in the relevant management and/or psychology literature. The following descriptions indicate specific behaviors modeled by the Peters in portraying both characters.

Friendly Client

Friendly Peter is cordial and wants to be liked (Drory and Zaidman 2007; Jones and Pittman 1982). As a result, this Peter was gregarious and eager to spend time talking to others. He smiled, leaned forward, and talked with inflection. He would fill in quiet times with more talking. He would tell stories about other people involved in the company who were tangential to the audit tasks. In this role, the interactor tended to talk at length, but gave answers that did not necessarily address the auditor's questions. Friendly Peter would also use ingratiating strategies, including complimenting the participants and commending them on their new job as a staff auditor (Drory and Zaidman 2007).

Intimidating Client

Intimidating Peter is represented with the strong oppositional personality noted by the ICAEW (2003). Intimidating Peter did not want to have his time wasted. He was frustrated from being overworked and having to answer the questions—posed by new, inexperienced auditors—"every single year." He did not smile, did not speak with much inflection (unless to specify disapproval or anger), and did not attempt to lead the conversation with the auditor. In this role, the interactor tended to give short answers and not elaborate. He did not make it easy to carry on a conversation (i.e., he was not engaging). Thus, consistent

[14] Three interactors were used because of the time and energy demands from each interview setting. Due to the unpredictability of a live interview setting, rigid scripts could not be followed. However, to test for any possible bias, videos were reviewed for consistency. This ensured that each check was discussed and the explanations for each check were consistent across participants. Also, participant response data were analyzed for day and interactor effects and none were found.

[15] One author reviewed video from each of the 49 live simulation interview sessions to assess consistency of responses for the reasons for deficiencies. In 98 percent of the interviews, no substantial differences were found for the information provided by the character for why each disbursement was not a control exception. The only inconsistency noted was that in one interview, only five of the six checks were discussed. Exclusion of this participant's responses does not qualitatively affect the results of the experiment.

with the descriptions of an intimidator by Bolino and Turnley (1999), he maintained a character that was unapproachable and distant. When participant auditors questioned his accounting policies, he was more likely to take personal offense and escalate the situation. This included telling auditors that they were wasting his time with questions that were not important and/or questioning the participant's experience and knowledge (Bennett and Hatfield 2013; Jones and Pittman 1982). The behavior is consistent with the description of an intimidating client, where an individual presents a low threshold for anger and when angered, acts unpredictably and irrationally (Jones and Pittman 1982).

Manipulation Check

Support for the internal validity of our study design with respect to the manipulation comes from three different assessments. First, an assessment of the length of the interviews and the information presented by our Peter character indicated that the length of interviews varied in a manner consistent with the type of controller with whom the participant was interacting. Interviews with the intimidating controller were significantly shorter (13.2 minutes) than interviews with the friendly controller (18.2 minutes, $p = 0.0007$). Meanwhile, a review of the videotaped interactions found no substantial differences in the information provided by "Peter" as to why each disbursement was not a control exception (i.e., the objective information conveyed by the controller did not vary by the controller's personality type; see footnote 13).

Second, an assessment of participant verbal and non-verbal behavior indicated that we were successful in manipulating the information richness (emotional response) of our participants. The 49 audio-video taped audit interviews were each coded by one coauthor and a doctoral research assistant using Guerrero's (2005) system for coding interpersonal interactions. Analyses of the coding data indicated that the voice and speech characteristics of participants interviewing "Intimidating Peter" were consistent with someone who felt intimidated. These participants had less vocal variation in speech ($p = 0.03$) and less vocal expressiveness ($p = 0.05$), as well as lower levels of speech fluency ($p = 0.02$) and smoothness ($p < 0.001$). Participants interviewing "Friendly Peter" exhibited characteristics consistent with someone who did not feel intimidated and perceived the interaction as friendly. These participants were more likely to use friendly ($p = 0.01$), pleasant ($p = 0.01$), and warm ($p = 0.01$) vocalics. No differences between participants in the two study conditions were observed for speech characteristics that are insensitive to intimidation and friendliness (latency length, interruptions, talk-overs, and speaking when expected; $p > 0.19$).

Third, an assessment of participant responses to three semantic differential items assessing attributes of the actor's character (friendly versus intimidating), completed after the audit documentation task, provided further support for our successful manipulation of the information richness (emotional response) of our participants. These three items asked participants whether they perceived the actor/controller as: (1) friendly or unpleasant, (2) engaging or evasive, and (3) sociable or unsociable.[16] Participants in the friendly, as compared to those in the intimidating, condition were more likely to rate Peter more friendly than unpleasant ($p < 0.0001$), more engaging than evasive ($p < 0.0001$), and more sociable than unsociable ($p < 0.0001$).

Measures

Study measures included the demographic information and skepticism scale data collected approximately two weeks prior to the live simulation study, and audit judgment measures completed after participating in the live simulation. These measures are described as follows.

Demographic measures captured: education and prior work experience. The extent of education was assessed by asking for the number of auditing courses completed (0, 1, 2, or 3 or more). Work experience was assessed using a number of different items. First, participants indicated if they had experience working in customer relations and retail, working in restaurants as wait staff, working in general office and administrative positions, or specific work experience working for an accounting firm. Participants who indicated that they had experience working for an accounting firm were also asked if their work experience was full-time, part-time, or an internship; the function inside the accounting firm; whether they had audited cash; and if they had experience testing controls.

Trait skepticism was measured using the Hurtt (2010) Professional Skepticism Scale (HPSS). This scale consists of 30 items. Response options form a six-point Likert scale ranging from strongly disagree (1) to strongly agree (6). Cronbach's alpha for the HPSS in this study sample was 0.87.

[16] The positive words in these items are based on Drory and Zaidman's (2007) scale to measure ingratiation in the workplace, which includes items related to friendliness and sociability. The negative words are based on Jones and Pittman's (1982) description that individuals engaged in an intimidation strategy will appear to make themselves less, rather than more, attractive. Further, the negative words are consistent with Bolino and Turnley's (1999) suggestion that intimidators attempt to appear unapproachable and distant.

Professional skepticism, as the dependent variable, was assessed by evaluating two different audit judgments that were completed separately for each of the six checks. The first was the participant's judgment of a control deficiency using a yes/no format. Participants selecting a more conservative judgment were deemed to be exercising higher levels of professional skepticism. The second was a judgment regarding the level of additional follow-up audit effort needed. The response options that were presented to the participants included (1) do no additional work, (2) expand sample size, (3) locate and test compensating controls, or (4) perform more substantive testing. These response options correspond to none, low, medium, or high audit response strategy.[17] Participants recommending higher levels of follow-up work were deemed to be exercising higher levels of professional skepticism.

Data Analysis

Descriptive statistics were used to summarize responses to the dependent measures and assess distributional properties before regression analyses, using Generalized Estimating Equations (GEE) and planned contrasts, were conducted to test H1–H3. GEE is a statistical method for using regression techniques to analyze correlated responses and a set of predictors (Liang and Zeger 1986; Diggle, Liang, and Zeger 1994). In essence, this method allows for a less restrictive assumption (than that of independence) for the variance/covariance matrix and, thus, it can be useful for repeated measures (i.e., one individual providing responses for each of six checks) when variables are dichotomous (exception/not an exception) or categorical (i.e., none/low/medium/high) or both. Scores on the HPSS were mean-centered and standardized (i.e., [(HPSS score for the individual − mean HPSS score for the sample)/standard deviation of HPSS score for the sample]) prior to conducting all regression analyses. However, we used a median split of the HPSS score to create high and low skepticism groups for the planned contrasts in the GEE models used to test H3.

The regression technique used with GEE varied with the distributional properties of our repeated observations. For the binary response data (i.e., Does this cash disbursement represent a control exception? Yes/No), we used GEE to fit a logistic regression model analyzing predicted repeated binary observations. For the ordinal response data (What level of follow-up effort is recommended? None/Low/Medium/High), we used GEE to fit a proportional odds model. All GEE models were calculated using an exchangeable correlation matrix. (Given that each individual provides responses on each of the six checks, we do not assume that all observations are independent. The exchangeable correlation matrix relaxes the independence assumption in recognition of the repeated measures nature of the data.)

Work experience was treated as a covariate in all GEE analyses. We included experience working for an accounting firm, experience with auditing internal controls, and experience working with the public (e.g., customer relations and retail, working in restaurants as wait staff, working in general office and administrative positions) under the assumption that experience working with the public may affect participants' ability to deal with intimidating people. Regardless of type of work experience measure, assumptions of covariance were met in all analyses: There was no support for higher-order interactions involving work experience moderating any lower-order effects in the analyses reported here ($p > 0.12$).[18]

Between-subjects independent variables in all statistical models were: (1) client interpersonal style (friendly/intimidating) as a dichotomous variable; and (2) skepticism as a continuous variable (with the exception of planned contrast analyses). The within-subjects variable in all models was "checks." None of the audit response effort outcome measures were strongly skewed for this subgroup, allowing us to use GEE to fit a proportional odds model to these data.

RESULTS

Descriptive statistics for the two types of audit responses (i.e., error/non-error and additional work required) are reported in Table 3 by check for each of the friendly and intimidating manipulation conditions and for the total sample. The checks are grouped between those identified by the expert panel, student pre-test, and this study's participants as checks that are generally deemed to be an error (Panel A), and those that are not (Panel B). The table shows that the participants were more likely to rate disbursements as control exceptions and recommend more follow-up testing when interacting with the disagreeable client for

[17] Specific question answers are as follows: (1) No additional work, not a control exception; (2) Try to identify root of cause by expanding test of controls over disbursements by increasing the sample size (will add approximately 30 minutes to audit); (3) Reducing reliance on control and finding an additional compensating control over cash disbursements and testing compensating control (will add approximately one hour to audit); and (4) Increasing level of control risk associated with account (or assertion) and performing more substantive testing (will add approximately two hours to audit).

[18] Day (1–5) and interactor (1–3) effects were also examined in all GEE models. There was only one model in which a day effect was significant, at $p < 0.05$: Day 3 was significantly different from Day 5 in the regression analyzing auditor reactions as an audit response. There were no other differences in days or interactors. Moreover, including day and interactor effects in the analyses reported does not qualitatively affect the reported results. Accordingly, day and interactor effects are not included in the models.

TABLE 3

Univariate Descriptive Statistics of Dependent Variables by Check for Intimidating/Friendly Manipulation and Total Sample

Panel A: Checks Generally Deemed to be an Error (i.e., Checks 1, 3, 5, and 6)

	Percent Judging Disbursement to Represent a Control Error			Amount of Additional Audit Effort Recommended: Mean (Std. Dev.)		
Description of Issue	**Friendly n = 26**	**Intimidating n = 23**	**Total n = 49**	**Friendly n = 26**	**Intimidating n = 23**	**Total n = 49**
1. Payee was not on auditee's approved vendor list.	50.0	78.3	63.3	1.12 (1.238)	1.57 (1.12)	1.33 (1.21)
3. Controller's secretary signed on behalf of controller, and controller initialed check.	65.4	78.3	71.4	1.42 (1.24)	1.91 (1.24)	1.65 (1.25)
5. Check signer signed above authorized amount, but was caught and initialed by controller.	65.4	73.9	69.4	1.38 (1.24)	1.61 (1.16)	1.49 (1.19)
6. A check over $10,000 had two required signatures, but only one of the signers was approved for a disbursement above $10,000.	69.2	73.9	71.4	1.46 (1.17)	1.65 (1.23)	1.55 (1.19)

Panel B: Checks Generally not Deemed to be an Error (i.e., Checks 2 and 4)

	Percent Judging Disbursement to Represent a Control Error			Amount of Additional Audit Effort Recommended: Mean (Std. Dev.)		
	Friendly n = 26	**Intimidating n = 23**	**Total n = 49**	**Friendly n = 26**	**Intimidating n = 23**	**Total n = 49**
2. Check signer broke hand and signed with left hand.	53.8	34.8	44.9	0.69 (0.79)	0.74 (1.14)	0.71 (0.96)
4. Check amount exceeded signer's approved disbursement level by $0.10.	38.5	26.1	32.7	0.65 (0.98)	0.39 (0.78)	0.53 (0.89)

Additional effort mean is based on a four-point scale ranging from 0–3, where 0 = "no additional work necessary" and 3 = "increasing level of control risk associated with account (or assertion) and performing more substantive testing."

the checks generally deemed to be errors (checks 1, 3, 5, and 6; Panel A). The opposite pattern is seen with those checks generally not deemed to be errors (checks 2 and 4; Panel B).

GEE regression results for all participant assessments of control exceptions and for follow-up recommendations are presented in Table 4. Both of the GEE models in Table 4 find that the experience covariate is positively associated with professional skepticism. Further, some support is found for H2, as a friendly client impression management strategy is negatively associated with professional skepticism. However, this analysis identified possible inconsistencies in each of the six checks' reflections of the professional skepticism construct. Consistent with the results from the expert panel, student pre-testing, and the univariate analysis, participants' response patterns for checks 2 and 4 have a different response distribution than checks 1, 3, 5, and 6. As evidence of this, checks 2 and 4 have negative significant coefficients ($p \leq 0.05$) in both of the GEEs in Table 4. The coefficients imply that participants were less likely to judge these disbursements as control exceptions and less likely to suggest more extensive follow-up procedures. The significant differences in the checks across both of the models raise questions about the adequacy of these disbursements to reflect professional skepticism as part of a repeated measure. In response to the inconsistencies in which all six checks reflect a measure of professional skepticism, the hypotheses will be tested further by eliminating checks 2 and 4 from the GEE analysis.

The revised analysis is provided in Table 5. Limiting the statistical analysis to the checks that best reflect the construct of professional skepticism provides additional insights into its antecedents. As can be seen from the GEE results reported in Table 5, significant main effects were observed for both skepticism and client interpersonal style among the questionable disbursements for the control deficiency judgments. Further client interpersonal style was significant for the audit response

TABLE 4

Initial GEE Results (Full Sample)

	Disbursements Judgments (n = 294)			
	Control Deficiency Judgment		Additional Audit Effort Decision	
Variable	**Coefficient**	**Z**	**Coefficient**	**Z**
Check 1	−0.385	−1.00	−0.485	−1.68
Check 2	−1.075	−2.21**	−1.307	−3.13***
Check 3	−0.000	−0.00	0.134	0.34
Check 4	−1.795	−3.86***	−1.952	−4.66***
Check 5	−0.101	−0.23	−0.142	−0.43
Client Impression Management Strategy	−0.394	−1.19	−0.596	−1.86*
Skepticism	0.238	0.91	0.231	0.86
Client Impression Management Strategy × Skepticism	0.052	0.17	0.102	0.32
Experience (covariate)	0.681	2.12**	0.732	2.30**

***, **, * Indicate $p < 0.01$, $p < 0.05$, and $p < 0.10$, respectively.
Checks 1, 2, 3, 4, 5, and 6 are treated as repeated variables in this analysis. In total, there are 294 observations representing the six checks each of the 49 participants evaluated. Client Impression Strategy is coded as Friendly = 1; Intimidating = 0.

effort decisions.[19] Hence, H1 and H2 are supported by the data from the questionable disbursements (i.e., checks 1, 3, 5, and 6).[20]

The main effect for skepticism indicated that the more inherently skeptical the participant was, the more skeptical his or her audit judgments became. Meanwhile, the descriptive statistics in Table 3 and the negative coefficients listed in Table 5 for client interpersonal style (where friendly was coded as 1) indicate that participants who interacted with the friendly client made less skeptical judgments and decisions than did those who interacted with the intimidating client.

H3 predicts that individuals with lower levels of trait skepticism who interview a friendly client will exercise the least amount of professional skepticism as compared to individuals in the other three conditions. A planned contrast analysis, consistent with H3, was conducted using weights of −3, +1, +1, +1. We examined the least-squares means to determine whether the contrast visually fit the planned contrast. The Low Skepticism/Friendly condition had a negative estimate and the other three were positive, supporting the planned contrast. The results of this analysis, presented in Table 5, support H3 (Table 5, Panel B provides results for the specific planned contrasts). Individuals who were low on trait skepticism and interacted with a friendly client were least likely to identify a control exception and recommended significantly less audit effort than groups in the other three cells of the interaction (High Skepticism/Friendly, High Skepticism/Intimidating, and Low Skepticism/Intimidating) ($Z = 2.91$; $p \leq 0.003$ for control deficiency; and $Z = 3.28$; $p \leq 0.001$ for audit effort). In contrast, individuals who were high on trait skepticism did not significantly differ in their control deficiency judgments ($Z = -0.95$; $p \geq 0.34$) or audit effort ($Z = -0.81$; $p \geq 0.42$) when they interviewed a friendly as compared to an intimidating client. This pattern of results suggests that a friendly interpersonal communication style acts as a threat to professional skepticism for auditors who have lower levels of trait skepticism.

DISCUSSION

In this study, we examine the effects of auditor trait skepticism and of social interactions between an auditor and client on auditor judgment and behavior. Specifically, we consider their effects on professional skepticism. We do this using a live simulation method to create the interpersonal setting of the auditor-client interview. Our findings suggest that client interpersonal style and trait skepticism affect both audit judgments and audit behavior. First, auditors who scored higher on the HPSS trait skepticism scale acted with more skepticism in an interview setting. Second, individuals who interviewed a

[19] Check coefficients are not displayed for the follow-up analysis to retain parsimony. The check intercepts are included in the GEE analyses and indicate no significant differences between checks 1, 3, 5, and 6.

[20] We also perform multivariate testing on checks 2 and 4, which, through pre-testing, were largely determined not to be control exceptions. The distribution for the audit response effort for these two checks' measures was highly positively skewed and consistent with the form of a count distribution for this subgroup, requiring us to use GEE to fit a Poisson regression model to these data (instead of proportional odds). Accordingly, in this GEE, the variables for client interpersonal style, skepticism, the interaction of client interpersonal style and skepticism, and experience (as a covariate) were not significant.

TABLE 5

GEE Results for Tests of Study Hypotheses and Research Question

Panel A: GEE Results for Tests of Study Hypotheses with and without Interaction

	Questionable Disbursements (n = 196)			
	Main Effects Only Model		Interaction Model	
	Coefficient	Z	Coefficient	Z
Control Deficiency Judgment				
Client Interpersonal Style	−1.058	−2.23**	−1.055	−2.20**
Skepticism	0.478	2.60***	0.437	1.37
Client Interpersonal Style × Skepticism	—	—	0.062	0.16
Experience (covariate)	1.199	2.46***	1.206	2.48***
Additional Audit Effort Decision				
Client Interpersonal Style	−1.026	−2.30**	−1.034	−2.35**
Skepticism	0.440	2.62***	0.316	1.08
Client Interpersonal Style × Skepticism	–	–	0.204	0.57
Experience (covariate)	1.155	2.61***	1.165	2.63***

Panel B: Contrast Analysis between Conditions with Median-Split of Skepticism Variable

	Control Deficiency Judgment		Additional Audit Effort Decision	
	Coefficient	Z	Coefficient	Z
Model				
Client Interpersonal Style	−0.917	−1.53	−0.847	−1.52
Skepticism (Median-Split)	−0.454	−0.95	−0.341	−1.37
Client Interpersonal Style × Skepticism	−0.550	−0.78	−0.670	−0.16
Experience (covariate)	1.166	2.37***	1.128	2.52***
Contrasts				
Low Skepticism/Friendly versus Mean Others[a]	4.392	2.91**	4.387	3.28**
High Skepticism/Friendly versus High Skepticism/Intimidating	−0.454	−0.95	−0.341	−0.81
Low Skepticism/Intimidating versus High Skepticism/Friendly	−0.464	−0.86	−0.507	−0.98
Low Skepticism/Intimidating versus High Skepticism/Intimidating	−0.917	−1.53	−0.847	−1.52

***, ** Indicate $p < 0.01$ and $p < 0.05$, respectively.

[a] The Low Skepticism/Friendly condition is statistically different (lower) than the other three conditions at $p < 0.054$ for the control deficiency judgment and $p < 0.032$ for the additional audit effort decision.

Checks 1, 3, 5, and 6 are treated as repeated variables in this analysis. In total, there are 196 observations representing the four checks each of the 49 participants evaluated. Client Impression Strategy is coded as Friendly = 1; Intimidating = 0. Panel A analyzes Skepticism as a mean-centered continuous variable. In Panel B, Skepticism is median split of HPSS to perform contrast testing.

friendly client controller tended to be less likely to make skeptical judgments and decisions. Specifically, they were less likely to view questionable disbursements as being control exceptions and they were less likely to recommend more extensive follow-up audit testing. Thus, we find that the friendly interpersonal style more effectively decreases professional skepticism in junior auditors than does an intimidating style. This is consistent with concerns that the relationships and social interactions with audit clients can inhibit professional skepticism (see Bazerman, Morgan, and Loewenstein 1997; Glover and Prawitt 2013; ICAEW 2003). We also provide evidence of an interactive effect between situational and personality characteristics that identifies chronically accessible schema containing constructs potentially relevant to fraud detection (Bargh and Pratto 1986; Eysenck et al. 1987) as the mechanism that explains consistency in the effects of trait skepticism across audit judgment situations irrespective of client interpersonal style for those who score high on this trait. Specifically, the friendly interpersonal client communication style presented a heightened threat to the professional skepticism of those auditors who are low on this trait as determined by HPSS.

Notably, there was a large variation in judgments regarding the extent to which test items represented control exceptions. This was true across the test participants, the pre-test participants, and even the expert panel.[21] Clearly, more research is needed regarding what determines a control exception judgment and the nature of auditor thought processes that lead to these subjective judgments. Such research would be helpful in understanding why, every year, internal control issues are at or near the top of issues identified by PCAOB inspection teams. If there is diversity of opinion as to what constitutes a control failure, then it is possible that additional clarification could lead to more uniform definitions and better follow-up, in practice, on questionable items.

This study has multiple implications for future research. First, future work could move beyond the relatively simple task of control procedures for cash disbursements to investigate the use of client interview live simulations with more complex tasks that involve greater levels of judgment. Our live simulation focused on a relatively straightforward sample of issues related to cash disbursements. The simple nature of the task allowed for the use of entry-level accountants and Master's students as a proxy for entry-level accountants. However, we find that even relatively small differences in levels of work experience can have an effect on judgment and decision outcomes. Hence, future research should examine the extent to which the current study's findings will generalize to other, more complex audit tasks that require greater expertise. More complex tasks might include asset impairment judgments or a task in which the auditor must determine whether the results of control testing indicate a finding of significant deficiency or material weakness. More extensive experimentation, in combination with greater theoretical development, could determine boundary conditions under which the current study's findings hold, and potentially identify factors that moderate or mediate the effects observed in this study.

Second, live simulation offers an opportunity to study how different types of auditors might be affected by various client interpersonal styles or other factors. For example, one could examine the intimidation tactics of women, which are interpreted differently than men (Bolino and Turnley 2003b), or how individuals with a high need for closure (Kruglanski 1989) might be affected by a friendly or intimidating client. Future work could also examine the effect of the interview on the auditor's final (versus original) opinion. In essence, one could examine the conditions under which the interview experience serves to change the auditor's mind. This could be very useful in studies related to fraud detection.

Third, future research could focus on the extent to which the use of live simulation could be a cost-effective method to enhance entry-level auditor training. Findings supporting cost effectiveness could then be used to argue for use of simulated client interviews to enhance professional skepticism, and perhaps professional judgment in general. Live simulation methods may improve audit interviewing skills because these skills are learned through training, education, and experience (S. Albrecht, Zimbelman, C. Albrecht, and Riley 2015). As such, the use of interactors to incorporate interview training into audit education and/or training could make a significant contribution to the academic literature and the auditing profession. To the extent that professional interactors are unavailable or unaffordable, it may be possible to partner with faculty and students in a university's theater department to develop appropriate characters and scenarios. Such cross-disciplinary work could prove useful, as working with people from theater may help accounting students (and, potentially, alumni, should the program include partnering with accounting firms in the business community) become more aware of verbal and non-verbal communication and more practiced in dealing with challenging individuals and situations.

Fourth, an individual's HPSS score had a strong impact on audit judgment in this study, but the specifics of how trait skepticism works to impact audit judgment are not well understood. If future research could identify the mechanisms underlying this effect, then it might be possible to create a training protocol that could empower individuals who are low on the HPSS to function similarly to those who are high on the HPSS. Such research could have great theoretical, as well as practical, importance.

Finally, it is interesting that across our testing participants, pre-testers, and experts, there was a large variation in which items represented control exceptions. It could be helpful to conduct future research that examines the nature of the auditor's thought processes that lead to subjective judgments regarding control exceptions. It may be that the failure of auditors to recognize control exceptions when they are present explains, in part, why auditors are not better at detecting fraud.

This paper also presents implications for practice. The results provide evidence that the social environment in which auditors interact with clients can threaten professional skepticism (PS). While Bennett and Hatfield (2013) document that client intimidation can have a negative effect on the search for information, we document that client friendliness can decrease PS in control deficiency judgments. These two sets of findings argue for firms training audit teams to be aware of how client interactions (both friendly and intimidating) can impact professional skepticism. As noted above, it may be useful to develop training (potentially including live simulation) that equips auditors to effectively deal with different clients' interpersonal styles. Additionally, it may be beneficial to be cognizant of client interpersonal style as a threat to skepticism when monitoring,

[21] Similar findings are reported by Eutsler (2016) using a sample of 94 practicing auditors.

evaluating, and mentoring audit team members, and to retrain audit team members as necessary to ensure that their level of skepticism remains intact over time, regardless of the client's interpersonal style.

In summary, this paper contributes to the literature by addressing an important external validity issue regarding audit judgment and behavior, and extending this literature by examining the effects of both person and situation factors. Specifically, this study used a method that more closely approximates audit practice and investigated the effects of intimidating and friendly clients, as well as the effects of trait skepticism, on audit judgment and behavior. Additionally, this paper employs an underutilized methodology—live simulation—that has the power to provide insight into a variety of issues in audit judgment research, and to enhance the education and training of students and practitioners.

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