

**When Auditors Err: How Mistake Significance and Professional Image Influence
Staff Auditors' Likelihood to Admit a Mistake**

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ABSTRACT: The procedures performed by staff auditors are a critical component of the audit process, and mistakes in these procedures have the potential to jeopardize opinions if they are not communicated and corrected (Willett and Page 1996). Auditors who discover a mistake they committed must contend with both protecting their professional images and upholding their professional responsibilities. This paper examines these potentially conflicting pressures by investigating the effects of mistake significance and superiors' historical reactions to mistake admissions on staff auditors' likelihood of admitting a mistake. The results suggest that staff auditors' likelihood of admitting a mistake is affected by at least two (interactive) factors. Specifically, while staff auditors are highly likely to admit to a mistake when their superior has reacted positively, regardless of the significance of the mistake, auditors whose superior has reacted negatively are significantly less likely to admit to the mistake when the mistake is relatively insignificant.

Keywords: Audit quality reduction act, auditor mistake, dysfunctional behavior, professional image

Data Availability: Data available upon request

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INTRODUCTION

This paper reports the results of an experiment that examines the effects of mistake significance and immediate superiors' historical reactions to mistake admissions on staff auditors' likelihood of admitting a mistake they committed. Primarily, this study investigates whether the likelihood of disclosing a mistake committed when conducting audit procedures, an important audit quality reduction act (AQRA), is influenced by the significance of the mistake and the anticipated professional repercussions of mistake admission.

Prior AQRA research has investigated the potential negative impacts of several dysfunctional auditor behaviors (e.g., premature signoff, underreporting time, gathering insufficient evidence) on audit quality (e.g., Shapero et al. 2003, Houston 1999). This study extends the AQRA literature into a previously uninvestigated area - failing to admit to a mistake in audit procedures. Similar to other dysfunctional auditor behaviors, failing to admit to a mistake in audit procedures potentially jeopardizes the integrity of the audit opinion. This study contributes to the AQRA literature by investigating whether, and under what conditions, auditors will fail to admit to a mistake in auditing procedures.

This study is motivated by the importance of information disclosure among audit engagement members. The procedures performed by staff auditors are a critical component of the audit process, and mistakes in these procedures have the potential to jeopardize opinions if they are not communicated and corrected (Willett and Page 1996). Although it is crucial that auditors communicate their mistakes, the pressures of formal and informal professional consequences (e.g., substandard performance evaluations,

damaged reputations, decreased promotion prospects) could influence individuals' decisions concerning whether to admit mistakes (Leibenstein and Maital 1994).

Prior research indicates that individuals are protective of their images, and will attempt to avoid the negative repercussions of their actions by concealing mistakes (Argyris 1993; Larrick 1993; McNair 1991). Auditors are not immune to the pressures associated with the potential negative professional consequences of their actions (Tetlock 1985), as has been evidenced by several recent accounting scandals involving auditors attempting to conceal their mistakes (e.g., Enron and NextCard). The concealment of mistakes is of such concern that the Sarbanes-Oxley Act of 2002 includes the Corporate and Criminal Fraud Accountability Act, which criminalizes the knowing and willful destruction of corporate audit records (Sarbanes and Oxley 2002). Although this study does not address whether auditors will go as far as to manipulate or destruct audit records to conceal their mistakes, it does investigate when auditors will be willing to withhold evidence concerning a mistake they have committed.

This study adapts the Messier and Quilliam (1992) framework for predicament severity to investigate whether auditors will disclose mistakes they committed. The framework posits that the likelihood of mistake admission is contingent upon three factors: (1) the auditor's responsibility for the audit mistake; (2) the significance of the audit mistake; and (3) the potential professional repercussions of admitting the mistake. This study focuses on the latter two factors in the framework and holds constant the first (i.e., a single auditor is solely responsible) to avoid the complexities of group dynamics in an experimental setting.

This study investigates the potential professional repercussions of admitting to a mistake by manipulating the superior's historical reactions to mistake admissions (i.e., positive or negative). Superiors who have historically reacted negatively towards mistake admissions potentially create an environment in which subordinates conceal their mistakes to preserve their professional image (Steele 1975). This study hypothesizes that the likelihood of staff auditors admitting to their mistakes is lower (higher) when their superior has historically reacted negatively (positively) to mistake admission.

To investigate the significance of the auditing mistake, this study manipulates the existence of a compensating procedure. Compensating procedures provide additional coverage for a particular audit area by overlapping objectives and tasks. Compensating procedures potentially mitigate any damages related to performing an associated procedure incorrectly, thereby reducing a mistake's significance and the possibility of failing to detect material misstatements. This study hypothesizes that staff auditors' likelihood of admitting to mistakes is positively related to the significance of the mistake.

This study also hypothesizes an interaction between these two factors. Specifically, the likelihood of staff auditors admitting to their mistakes when their superior has reacted negatively (positively) towards mistakes will be positively related to (unaffected by) the significance of the mistake. Superiors' historical reactions can create an environment in which subordinates could avoid professional embarrassment by withholding information about a mistake (Larrick 1993). However, prior research indicates that environmental pressures (e.g., time deadlines, budget concerns) are typically a concern to auditors when succumbing to those pressures will not apparently affect audit quality (Willet and Page 1996, Ragunathan 1991). Accordingly, auditors are

expected to be sensitive to the superiors' historical reactions, but only when the mistake does not affect audit quality.

To test these hypotheses, this study utilizes a 2 x 2 between-subjects experiment in which 35 professional auditors and 44 accounting students with public accounting experience completed a case involving a hypothetical auditor who has discovered that he committed a mistake. The results support both the main effects and the interaction hypotheses.

These findings are important because auditors operating in an environment that makes mistake admission a negative experience could become susceptible to underestimating the significance of their mistakes as to avoid admitting fault and suffering any negative professional consequences. When staff auditors fail to admit to apparently inconsequential mistakes, they potentially influence the assumptions upon which the engagement leaders base their decisions. Compromising these assumptions increases the risk that the audit will fail to detect material misstatements (Willet and Page 1996).

Additionally, this study illustrates that, while auditors are sensitive to the potential negative repercussions of admitting their mistakes, their sensitivity can be mitigated by positive reinforcement from superiors. All supervising auditors should be aware of the potential breakdowns in communication and information sharing that can result from their negative reactions to staff auditors' mistake admissions.

The paper is organized as follows. The next section contains a literature review and develops the foundation for the hypotheses. The third section discusses the experimental design, methodology, and the analyses employed to interpret the results.

The fourth section presents the results of the experiment. The paper concludes with a discussion of the implications, limitations, and potential opportunities for future research.

HYPOTHESIS DEVELOPMENT

Prior Audit Quality Reduction Act Research

Prior accounting research has investigated the effects of various pressures on the likelihood of engaging in dysfunctional auditor behaviors that either directly or indirectly affect audit quality. For example, AQRA research has found that auditors engage in underreporting time (McNair 1991), premature signoff (Otley and Pierce 1995), insufficient data collection (Alderman and Deitrick 1982), and audit procedure omission (Margheim and Pany 1986). Donnelly et al. (2003) suggests that these dysfunctional behaviors are widespread, and negatively affect both the quality of the audits being performed and the auditing profession as a whole.

While prior research has identified several dysfunctional behaviors that affect audit quality, auditors' likelihood of admitting to a mistake in audit procedures has not been investigated. Though the academic literature has not specifically discussed the issue, prior accounting, psychology, and organizational behavior research provides a theoretical foundation to hypothesize how auditors will act when they mistake.

The Psychology of Retroactive Responses

This study investigates auditors' responses to a mistake in procedures that they have already committed. Prior psychology and organizational behavior research has identified three responses that are typically used by individuals attempting to retroactively avoid the negative professional consequences of their decisions (i.e., to avoid the consequences of an action already committed). This research indicates that

individuals will avoid the consequences by (1) justifying the decision, (2) providing a scapegoat for the decision (i.e., assigning blame to an external agent), or (3) misrepresenting the outcome of a decision (Ashforth and Lee 1990; Tetlock 1985; Staw 1980). This study focuses on the retrospective response of misrepresentation.

Misrepresentation can manifest itself in several forms – individuals attempting to avoid blame may distort, embellish, or withhold information detrimental to their professional images (Ashforth and Lee 1990). Specifically, this study investigates auditors' likelihood of misrepresenting a mistake already made by withholding evidence that could be detrimental to their professional images.

The Importance of Professional Image

Audit firms utilize performance evaluations to assess individuals at all levels within the audit firm hierarchy (DeZoort and Lord 1997). Performance evaluations are critical to audit firms because they facilitate the retention, promotion, and development of auditors (Kaplan and Reckers 1993). However, evaluators are unable to observe all of their subordinates' actions (McNair 1991), and often must rely on information provided by subordinates in order to complete performance evaluations (Kaplan and Reckers 1993; Wood and Mitchell 1981). This reliance on information known only by subordinates creates situations in which the subordinates can withhold potentially image-damaging information (e.g., substandard task performance) from their superiors to manage their superiors' perceptions (Larrick 1993).

Argyris (1993) posits that employees in almost every organizational setting attempt to manage their reputations to facilitate their professional advancement, even at a cost to the organization. However, situations often arise, either as a direct or indirect

result of a person's efforts, that have the potential to negatively impact the image an individual has aspired to maintain.

This study utilizes a predicament severity framework adapted from Messier and Quilliam (1992) that posits that the likelihood of mistake admission is contingent upon three factors: (1) the auditor's responsibility for the audit mistake; (2) the significance of the audit mistake; and (3) the potential professional repercussions of admitting the mistake. This study focuses on the latter two factors in the framework and holds constant the first (i.e., a single auditor is solely responsible) to avoid the complexity of group dynamics in an experimental setting.

Potential Negative Professional Repercussions

This study investigates the potential professional repercussions of admitting to a mistake by manipulating the superior's historical reactions to mistake admissions (i.e., positive or negative). The social psychology literature has investigated the influence that superiors exert upon their subordinates in organizational settings (e.g., Cialdini and Goldstein 2004; Kelman, 2001). Employees are receptive to the actions, comments, and opinions of their superiors, and often develop strategies to accommodate their superiors' perspectives into their decision-making processes (Zohar 1980).

Superiors' adverse historical reactions to subordinates' mistakes suggest negative repercussions for current mistake admission (Steele 1975). These reactions both encourage individuals to, and reward individuals for, using defensive behaviors (Argyris 1993). An individual discovering a mistake coupled with a negative superior influence creates what Argyris (1980) referred to as a double-bind situation. McNair (1991) suggests that Argyris' double-bind situation occurs in public accounting when auditors

are forced into a no-win situation by contradictory actions suggested by the social pressures (e.g., a superior's historical reactions) and by their professional requirements (e.g., auditing standards).

Ceteris paribus, denying or withholding a mistake becomes advantageous for individuals who are caught in a double-bind situation because it minimizes the consequences to their professional development (Larrick 1993). Prior literature indicates that subordinates will acquiesce to the explicit or implicit requests of their superiors (Cialdini and Goldstein 2004) and that employees will attempt to maximize (minimize) their association with positive (negative) events in order to manage the professional consequences associated with their actions (Palmer and Welker 1994). Because negative superior historical reactions can exacerbate the perceived negative professional consequences of disclosing a mistake, the following hypothesis is proposed:

H₁: The likelihood of staff auditors admitting to their mistakes is lower (higher) when their superior has historically reacted negatively (positively) towards mistake admission.

Mistake Significance

This study investigates the significance of an audit mistake by manipulating the presence of a compensating procedure. Professional standards require auditors who discover omitted audit procedures after the report date to assess the impact of the mistake on the financial statement opinion and discuss the circumstances with other engagement personnel if a compensating procedure was not performed (AU Section No. 390.01; AICPA 1983). Because auditing standards require that mistakes be reported to engagement personnel after the audit report has been issued, auditors encountering similar situations prior to the report date have a tacit responsibility to communicate with

the engagement team. The standards provide a foundation upon which the significance of a mistake can be measured (i.e., auditing mistakes with a compensating procedure are less significant than those without), regardless of when a mistake is found.

Prior accounting research indicates that materiality is a prevalent factor in auditor judgments. For example, Nelson et al. (2005) suggest that auditors' likelihood of acquiescence concerning whether a client should record an adjusting journal entry is negatively related to the materiality of the difference in question. This concern about materiality stems from one of the principal objectives of a financial statement opinion: to provide reasonable assurance that the audited financial statements are free from material misstatements (AU Section No. 508.08; AICPA 1989). Given the significant emphasis auditors place upon the materiality of clients' mistakes when making decisions, it is reasonable to assume that the same emphasis will be placed upon their mistakes (i.e., it is reasonable to expect that auditors will evaluate the significance of the mistake and its impact on the audit) when determining the proper course of action.

Furthermore, Patterson and Smith (2003) suggest that auditors, when faced with an increased risk of failing to detect a material misstatement, will tend to make more conservative auditing decisions. Because prior research indicates that auditors tend to make decisions based upon the impact that the decision could have on the audit opinion (e.g., Nelson et al. 2005, Patterson and Smith 2003), the following hypothesis is proposed:

H₂: The likelihood of staff auditors admitting to their mistakes is positively related to the significance of the mistake.

Mistake Significance and Professional Image Protection Interaction

Psychology and organizational behavior research indicates that individuals are protective of their images, and will attempt to avoid the negative repercussions of their actions by concealing mistakes from their superiors (Argyris 1993; Larrick 1993; McNair 1991). Although the extant literature provides a foundation for understanding decisions that individuals make to manage their images, research investigating defensive behaviors in an auditing environment also must account for auditors' professional responsibilities.

Auditors who discover a mistake they committed must contend with both protecting their professional images and upholding their professional responsibilities (i.e., to their firms and financial statement users). Superiors' historical reactions can create an environment in which subordinates could avoid professional embarrassment by withholding information about a mistake. However, prior research indicates that environmental pressures (e.g., time deadlines, budget concerns) are typically a concern to auditors when succumbing to those pressures will not apparently affect the quality of the audit (Coram et al. 2004; McMillan and White 1993; Ragunathan 1991). Smith and Kida (1991) posit that auditors are not as susceptible to pressures that will jeopardize the audit because of potential legal and reputation consequences associated with an audit failure.

Accordingly, auditors are expected to be sensitive to the superiors' historical reactions, but only when the mistake does not affect audit quality. Figure 1 depicts the hypothesized interaction of mistake significance and the superiors' historical reactions, which is formally proposed as:

H₃: The likelihood of staff auditors admitting to their mistakes when their superior has reacted negatively (positively) towards mistakes will be positively related to (unaffected by) the significance of the mistake.

[Please insert Figure 1 about here]

METHOD

Participants

Participants consisted of graduate and upper-level undergraduate students with at least three months experience as a public accountant, as well as professional auditors.¹ A paper-based experiment was administered to 95 masters of accountancy students and undergraduate seniors from a large state university.² Additionally, approximately 100 professional auditors were sent email requests for participation in the experiment; the email contained a hyperlink directing them to an online version of the experiment. The email request received approximately a 40 percent response rate; the 42 respondents consisted of staff (24), seniors (15), and managers (3). Respondents were systematically directed to one of the four treatment conditions, and were prevented from submitting multiple responses from a single IP address.

Forty three participants without audit experience were excluded from the analyses, leaving 94 (42 professionals, 52 students) participant responses for manipulation checking and hypothesis testing. These respondents were not analyzed because knowledge of the auditing procedures, audit environment, and related pressures provide a necessary base to understand the issues presented in the case materials. Accordingly, all remaining participants had experience in public accounting; participants had a mean work experience of 17.54 months ($SD = 28.71$ months). The majority of the

¹ Student participants in this study are assumed to be adequate proxies for professional auditors because only students with at least three months audit experience (most as interns) were included in the analysis.

² Student participation was voluntary, but a \$1.00 donation to the charity of each student's choice was offered as an incentive for participation.

participants, 62 percent, had experience working for a Big Four public accounting firm. The results of the experiment were not significantly affected by any of the demographic variables collected.

Experimental Task

Participants read a narrative describing an audit scenario involving a hypothetical staff auditor, Terry. The audit scenario indicated that Terry was asked to select a random sample of the client's customers to generate positive accounts receivable confirmations. After Terry generated the confirmations, his immediate superior briefly reviewed the confirmations' wording and format, but relied on Terry's ability to select the appropriate sample from the population. Near the end of field work, Terry noticed that he had mistakenly generated the confirmations from an incorrect customer population. The significance of the mistake and the immediate superior's historical reaction to mistake admissions were manipulated within the narrative.

The immediate superior's historical reaction to mistake disclosures (*REACT*) was investigated by manipulating how the superior had previously handled mistake disclosures. In the positive manipulation, the superior's typical response to mistakes was to turn the incident into a positive, constructive experience. In the negative manipulation, the superior's typical response to mistakes was to turn the incident into a negative, humiliating experience.

The significance of the audit mistake (*SIG*) was investigated by manipulating whether the audit plan contained a compensating procedure. If the compensating procedure was present (absent), participants were informed that the likelihood of the audit failing to detect a material misstatement would be unaffected (significantly

increased). The narrative also conveyed that, if Terry's immediate superior is not informed about the sampling mistake, it is unlikely that anyone else will discover Terry's mistake during this audit or future audits.

Responses

After reviewing the narrative, participants were asked, "Out of 100 auditors in the identical position as Terry, how many do you believe would report the mistake to their immediate superior?" Because the study investigates a morally intense issue, the primary dependent variable did not assess the likelihood that participants themselves would admit to the mistake, but rather required participants to use their experiences to anticipate the behavior of other auditors. Specifically, the primary dependent variable measured the number of auditors, out of 100, that would admit the mistake (*ADMIT*). This dependent measure was chosen to mitigate the effects of the social desirability bias; that is, the possibility that participants overestimate the likelihood that they would perform the socially desirable action (i.e., admitting to the mistake) (Chung and Monroe 2003). However, after a series of additional questions pertaining to professional reputation, performance reviews, and professional responsibility, participants also were asked how they would respond if they were in a similar situation.

RESULTS

Manipulation Checks and Related Issues

To examine whether the *REACT* variable was adequately manipulated, participants were asked to describe the superior's typical reactions to subordinates' mistakes. Participants responded using a nine-point Likert-type scale with end-points labeled "1= Very Negative" and "9=Very Positive." Statistical analysis indicates that

perceived typical reactions were more positive in the positive treatment (Mean (M) = 7.76) than in the negative treatment ($M = 1.86$, $T = 18.876$, $p < 0.001$, two-sided), indicating a successful manipulation.

To examine whether the *SIG* variable was adequately manipulated, participants were asked whether the audit plan described in the case contained additional audit procedures for accounts receivable. Participants were limited to a dichotomous yes/no answer; 79 (84 percent) passed the *SIG* manipulation check. For conservatism, participants who failed the *SIG* manipulation check were excluded, leaving 79 (35 professionals, 42 students) of the 94 participants for hypothesis testing. The results were qualitatively unaffected if those who failed the *SIG* manipulation check were not excluded from the analyses. Table 1 provides demographics for all participants used in hypothesis testing.

[Please insert Table 1 about here]

Overall, participants viewed the scenario as realistic ($M = 7.96$ on a 9-point scale with “1 = not at all realistic” and “9 = very realistic”). Approximately 41 percent of the participants indicated that they had been in a similar professional situation in which they had to choose between professionalism and protecting their image. Several covariate and blocking variables were analyzed to determine the results’ robustness to several potentially influencing factors. The analyses indicate that the responses were not sensitive to various factors, including the self-assessment of the likelihood of the mistake being discovered in the future, a preliminary risk assessment of the account in question, or whether the participant had previously been in a similar professional situation.

Primary Analysis

Panel A of Table 2 presents the ANOVA results for hypothesis testing; Panel B presents the cell means, factor means, and grand mean for *ADMIT*. Hypothesis 1 predicts that the likelihood of staff auditors admitting to their mistakes is lower (higher) when their superior has historically reacted negatively (positively) towards mistake admissions. Consistent with the hypothesis, the results indicate that responses for negative *REACT* ($M = 71.19$) are significantly lower than for positive *REACT* ($M = 77.03$; $F = 2.86$, $p = 0.048$, one-tailed). These responses suggest that staff auditors are sensitive to the potential negative professional repercussions of admitting to a mistake, and will make decisions that protect their professional images.

[Please insert Table 2 about here]

Hypothesis 2 predicts that the likelihood of staff auditors admitting to their mistakes is positively related to the significance of the mistake. Consistent with the hypothesis, the results indicate that the low *SIG* condition ($M = 69.26$) is significantly different from the high condition ($M = 77.64$; $F = 3.94$, $p = 0.026$, one-tailed). These responses suggest that staff auditors make decisions that apparently preserve the integrity of the audit; specifically, auditors will make decisions that do not apparently increase the risk that the audit will fail to detect a material misstatement.

Hypothesis 3 predicts a significant interaction *SIG* \times *REACT*; that is, the likelihood of staff auditors admitting to their mistakes when their superior has reacted negatively (positively) towards mistakes will be positively related to (unaffected by) the significance of the mistake. Consistent with the hypothesis, the results indicate a significant *SIG* \times *REACT* interaction ($F = 3.39$, $p = 0.035$, one-tailed). Figure 2 depicts

the results, which indicate that approximately 77 percent of auditors would be expected to report a mistake to their immediate superior for three of the four treatment conditions. However, only 62 percent of auditors would be expected to report a mistake they committed to their immediate superior when the mistake was of low significance and the immediate superior had historically reacted negatively towards mistake admission.

[Please insert Figure 2 about here]

These results suggest that staff auditors are sensitive to the superiors' historical reactions, but only when the mistake does not affect the quality of the audit. Furthermore, what is most troubling about these results is that, on average, participants expected at least 25 percent of staff auditors to not report the mistake, regardless of the significance of the mistake or the superior's historical reactions.

Supplementary Analyses

Supplementary analyses were performed to provide further insight into the results. First, additional analyses were performed to understand the results' sensitivity to the phrasing of the dependent measure. Although the primary dependent variable was the participants' approximation of how many auditors (out of 100) would admit the mistake, participants also indicated what they would do if they were in a similar situation. Not surprisingly, the average response for participants was 8.33 (with "1 = definitely not report" and "9 = definitely report"). ANOVA results indicate a moderately significant difference, in the direction originally hypothesized, for only the *REACT* variable ($F = 2.65$, $p = 0.054$, one-tailed). The results are most likely a consequence of asking participants to disclose a decision that could be construed as unprofessional or even

unethical (i.e., withholding information potentially critical to an audit), and support the chosen primary dependent variable.

Second, in order to provide additional support for Hypothesis 1, participants were asked two questions regarding the potential professional repercussions of admitting to the mistake. First, participants were asked to estimate the effect of reporting the mistake on Terry's performance evaluation ("1 = very negative" and "9 = very positive"). Next, participants were asked to estimate the effect of reporting the mistake on Terry's professional reputation ("1 = very negative" and "9 = very positive"). ANOVA results indicate that *REACT* significantly influences participants' estimations of how reporting the mistake will affect Terry's performance evaluation ($M_{Neg} = 4.55$, $M_{Pos} = 5.97$; $F = 12.59$, $p = 0.001$; two-tailed) and significantly influences participants' estimations of how reporting the mistake will affect Terry's professional reputation ($M_{Neg} = 5.52$, $M_{Pos} = 6.57$; $F = 7.76$, $p = 0.007$; two-tailed). These results provide additional support for an assertion underlying Hypothesis 1; specifically, that negative superior historical reactions exacerbate the perceived negative professional consequences of disclosing mistakes.

Third, in order to provide additional support for Hypothesis 2, participants were asked to indicate the extent to which they agreed that audit standards require Terry to report the mistake to his superior ("1 = strongly disagree" and "9 = strongly agree"). ANOVA results indicate that *SIG* significantly influences ($F = 5.22$, $p = 0.025$, two-tailed) whether participants believed that audit standards require the admission of the mistake. Specifically, participants in the high *SIG* condition ($M = 8.66$) were more likely to believe that audit standards require the admission of the mistake compared to the low *SIG* condition ($M = 8.00$). The relatively high means in both conditions suggest that

participants agreed that professional standards require communication of the mistake regardless of whether it affects the likelihood of detecting a material misstatement. Moreover, the significant difference between the high and low conditions supports the chosen *SIG* manipulation (i.e., the existence of a compensating procedure). Finally, the results provide additional support for Hypothesis 2 in that staff auditors believe they have a greater professional responsibility to report a mistake as the significance of the mistake increases.

Finally, an additional ANOVA investigated the effects of participants' experience level on *ADMIT*. Specifically, an Experience (*EXP*) variable was created with participants coded as either audit interns (i.e., students) or professionals. Panel A of Table 3 presents the results of this supplemental examination; Panels B and C present cell means for *ADMIT* for audit interns and professionals, respectively. While the results should be interpreted cautiously (because of the small cell sizes), the ANOVA results indicate that *EXP* significantly influences participants' responses ($F = 4.53$, $p = 0.04$, two-tailed).³ Specifically, interns expected fewer auditors to admit to their mistake ($M = 71.25$) than the more experienced professionals ($M = 77.29$). However, as Panel A reveals, *EXP* does not interact with any of the other factors, and does not affect the significance of the *SIG* \times *REACT* interaction. Further investigation is needed to fully understand the effects of *EXP* on mistake admission.

[Please insert Table 3 about here]

³ This analysis was performed by coding all students with any level of experience as interns. However, if students with more than internship experience (e.g., had audit senior or managerial experience) were coded as professionals, the ANOVA results indicate that *EXP* does not significantly influence responses ($F = 2.12$, $p = 0.149$, two-tailed). Also, using this coding scheme, *EXP* does not interact with any other factors or influence the *SIG* \times *REACT* interaction.

DISCUSSION AND CONCLUSIONS

Implications

This study reports the results of an experiment that investigates the effects of mistake significance and immediate superiors' historical reactions to mistake admissions on staff auditors' likelihood of admitting a mistake they committed. This study hypothesizes (and provides results that suggest) that staff auditors' likelihood of admitting a mistake is affected by at least two (interactive) factors. First, staff auditors' likelihood of admitting a mistake is positively related to the significance of the mistake. Second, staff auditors are less (more) likely to admit a mistake when their superiors' historical reactions have been negative (positive). Finally, staff auditors' likelihood of admitting to their mistakes when their superior has reacted negatively (positively) towards mistakes will be positively related to (unaffected by) the significance of the mistake.

There are two significant implications resulting from this study. First, assessing the significance of a mistake is a subjective process that could have unforeseen consequences. When staff auditors fail to admit to an apparently inconsequential mistake, they potentially influence the assumptions upon which the engagement leaders base their decisions. When these assumptions are compromised, there is an increased risk that the audit will fail to detect a material misstatement (Willet and Page 1996). Furthermore, auditors operating in an environment that has made mistake admission a negative experience could become susceptible to underestimating the significance of their mistakes as to avoid admitting fault to the superior and enduring any negative professional consequences.

Second, audit firms have some ability to control the vulnerability individuals feel when their performances are unsatisfactory. This study illustrates that, while auditors are sensitive to the potential negative repercussions of admitting their mistakes, their sensitivity can be mitigated by positive reinforcement from superiors. While consistent underperformance or egregiously unethical decisions may justify adverse professional consequences, isolated events should be handled in a manner that does not set precedence for perfection. Audit seniors, and other supervising auditors, should be aware of the potential breakdowns in communication and information sharing that can result from their negative reactions to staff auditors' mistake admissions.

Future Research Opportunities

This study provides initial support for the notion that experience might influence auditors' likelihood to admit a mistake. However, it should be noted that after controlling for experience differences, the *SIG x REACT* interactive effect is unaffected. These results suggest that auditor experience is a potentially important factor in mistake admission, yet the effects of mistake significance and superior's historical reactions are, to some degree, robust to experience. Additional research should be conducted to more confidently understand and explain the effects of experience on mistake admission.

Understanding factors that will lead to more candid and free exchange of information among audit engagement members is of great importance; especially in a profession, regulatory environment, and capital market so in need of reliable audit opinions. This study presents many potential future research opportunities. Specifically, future researchers could investigate the influences of shared responsibility, alternative

responses to discovering a mistake, as well as the influence of pragmatic factors such as timing of the discovery, audit client history/relationship, and job security.

Limitations

The results of this study should be considered in light of three limitations. First, asking participants how they believe other auditors would respond may not be an accurate proxy of true behavior; however, because of the sensitive nature of the auditing issue, it is unclear whether candid responses could be obtained in an experimental setting. Second, the primary dependent variable examined only one of many potential responses to discovering a mistake. Other responses may be available (e.g., fixing the mistake without informing the superior, informing a higher-level superior on the engagement, or blaming someone else for the mistake). Finally, the experiment clearly establishes the significance of the mistake (i.e., how the mistake will influence the likelihood of failing to detect a material misstatement). It is acknowledged that mistake significance will often not be as clear as what was presented in the experiment.

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Figure 1
Hypothesis 3

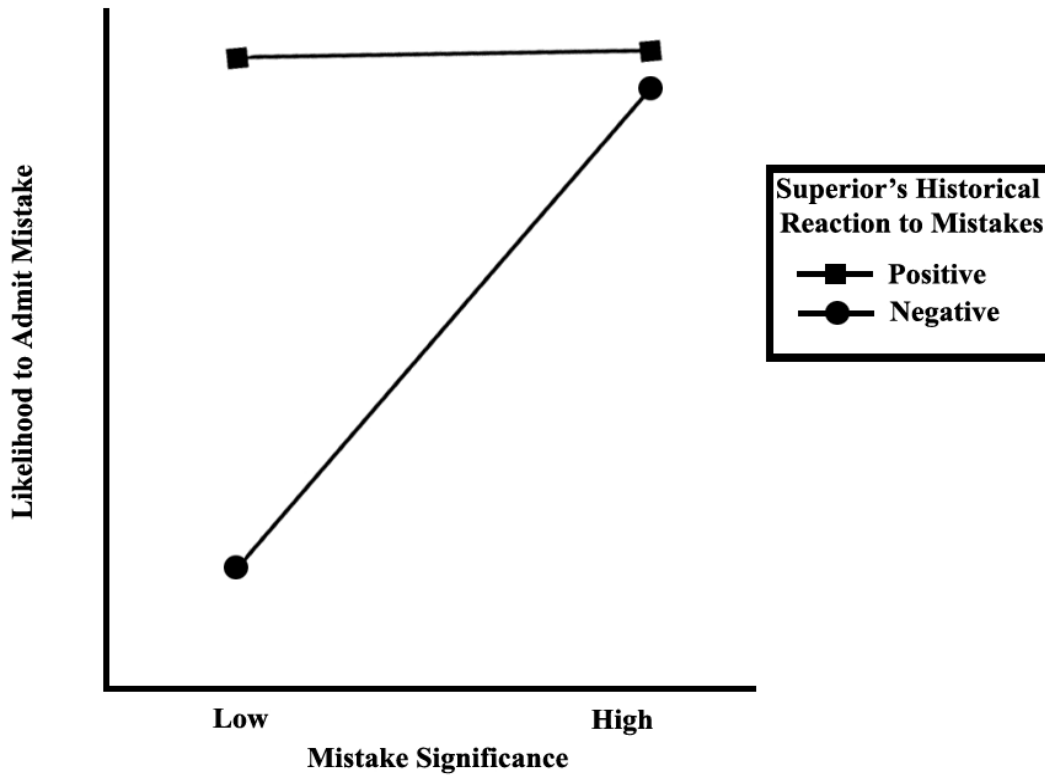


Figure 1 summarizes the predicted effects of superiors' historical reaction to mistakes and mistake significance on auditors' likelihood to admit to a mistake that (s)he committed.

Figure 2
The Impact of Superiors' Historical Reactions
and Mistake Significance on Auditors' Likelihood to Admit Mistake

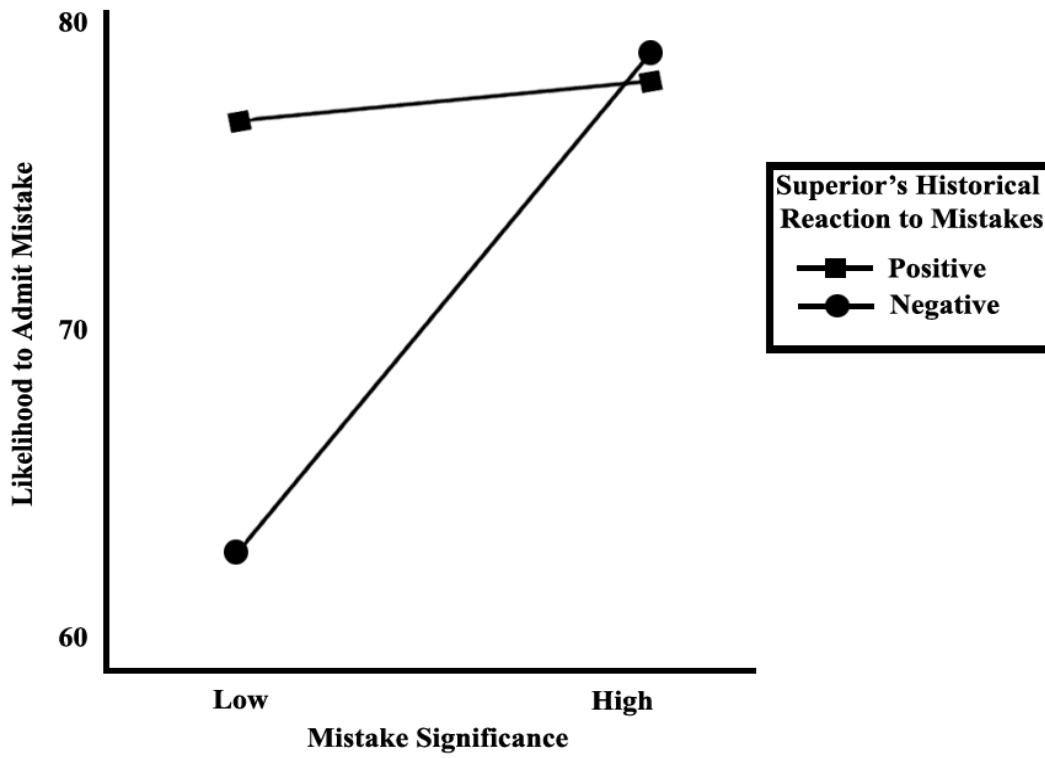


Figure 2 summarizes the observed effects of superiors' historical reactions to mistakes and mistake significance on auditors' likelihood to admit to a mistake that (s)he committed.

TABLE 1
Participant demographics

	Experience Level				
	Student	Staff	Senior	Manager	All
n	44	19	13	3	79
Mean	7.61	12.26	39.54	101.33	17.54
Experience*	(18.00)	(6.56)	(7.64)	(91.31)	(28.71)
Big Four	24	13	11	1	49
Females	30	8	5	0	43
Males	14	11	8	3	36

* Experience data is measured in months

TABLE 2
Hypothesis test results
(n=79)

Panel A: ANOVA results for ADMIT

<u>Variable</u>	<u>Hypothesis</u>	<u>F</u>	<u>p-value*</u>
<i>REACT</i>	H ₁	2.86	0.048
<i>SIG</i>	H ₂	3.94	0.026
<i>SIG x REACT</i>	H ₃	3.39	0.035

Panel B: Cell means (SD) [n] for ADMIT

<u><i>SIG x REACT</i> (p = 0.035)</u>		<u><i>SIG</i> (p = 0.026)</u>		
<u><i>REACT</i> (p = 0.048)</u>	Low	High	Overall	
Negative	62.22 (26.64) [18]	77.92 (11.97) [24]	71.19 (20.89) [42]	
Positive	76.71 (13.35) [17]	77.30 (18.21) [20]	77.03 (15.947) [37]	
Overall	69.26 (22.19) [35]	77.64 (14.94) [44]	73.83 (19.08) [79]	

* *p-values are one-tailed*

Variable Coding:

ADMIT = Number of auditors out of 100 that would admit a mistake they committed

SIG = Significance of the mistake; low or high

REACT = Superior's historical reaction to mistake admission; negative or positive

TABLE 3
Supplemental analysis of the effects of experience on ADMIT
(n=79)

Panel A: ANOVA results for ADMIT including EXP variable

<u>Variable</u>	<u>Hypothesis</u>	<u>F</u>	<u>p-value*</u>
<i>REACT</i>	H ₁	2.94	0.045
<i>SIG</i>	H ₂	5.03	0.014
<i>EXP</i>	-	4.53	0.037
<i>SIG x REACT</i>	H ₃	3.96	0.025
<i>SIG x EXP</i>	-	0.08	0.781
<i>REACT x EXP</i>	-	0.32	0.575
<i>SIG x REACT x EXP</i>	-	0.18	0.676

Panel B: Audit interns' cell means (SD) [n] for ADMIT

<i>REACT</i>	<i>SIG</i>	
	Low	High
Negative	57.86 (22.33) [7]	76.18 (9.44) [17]
Positive	72.78 (15.43) [9]	70.91 (20.10) [11]

Panel C: Audit professionals' cell means (SD) [n] for ADMIT

<i>REACT</i>	<i>SIG</i>	
	Low	High
Negative	65.00 (29.75) [11]	82.14 (16.80) [7]
Positive	81.13 (9.64) [8]	85.11 (12.56) [9]

*P-values are one-tailed for all hypothesized effects

Variable Coding:

ADMIT = Number of auditors out of 100 that would admit a mistake they committed

SIG = Significance of the mistake; low or high

REACT = Superior's historical reaction to mistake admission; negative or positive

EXP = What type of auditor the participant was; intern or professional

A Study

Investigating Auditor

Decision-Making

Auditor:

The following materials describe a situation involving a hypothetical auditor and accounting firm. Please carefully read the information provided and draw upon your experiences to answer each question to the best of your ability.

I could not anticipate everyone's information needs, but I have tried to provide as much relevant information as possible without making the case too long. The case should require **about 10 minutes** to complete.

Please be sure to complete the materials in the order provided; do not look ahead or change previous answers.

Your responses are **anonymous** and will be analyzed only after being combined with other participants' responses. Your participation is requested on a **strictly voluntary basis**. Completing the materials affirms your willingness to participate.

As a way of saying thank you for your participation and candid responses, I am donating \$1.00 to the charity of your choice for each completed case (preferred charity information gathered at the end of the study).

If you have any additional comments or questions about the study, or would be interested in having the results of this study sent to you, please direct your requests to:

Thank you for your time, participation, and candid responses.

Your participation is crucial to the success of this study.

THE AUDIT OF TANGO SIERRA, INC.

Background

ABC Accounting Firm (ABC) has been auditing Tango Sierra's financial statements for the past several years. This year, Terry McGill, a staff auditor who works for ABC, joined the Tango Sierra audit engagement team for the first time.

During the audit, Terry was asked to generate positive accounts receivable confirmations for the Tango Sierra audit. His immediate superior instructed him to prepare confirmations for a randomly selected sample of Tango Sierra's customers with outstanding accounts receivable balances greater than \$10,000 at year-end.

After Terry generated the confirmations, his immediate superior briefly reviewed the confirmations' wording and format, but relied on Terry's ability to select the appropriate sample from the population. The confirmations were then mailed to the selected customers and were returned with a few minor exceptions.

The Mistake

Close to the end of field work, Terry was asked to perform some administrative work on the engagement workpapers. Terry noticed that he had mistakenly generated the confirmations from customers with outstanding accounts receivable balances greater than **\$100,000, rather than those greater than \$10,000**, as per his instructions.

Customers with outstanding accounts receivable balances between \$10,000 and \$100,000 represent a **significant portion of Tango Sierra's year-end accounts receivable balance**.

The Decision

After discovering his mistake, Terry reviewed the audit program and discovered that it...

[Low SIG]...**contained additional audit procedures** (other than confirmations) that would help determine if accounts receivable were materially misstated. As a result, Terry reasonably estimates that his mistake **does not affect** the likelihood that ABC would fail to detect material misstatements in accounts receivable.

[High SIG] ...**did not contain additional audit procedures** (other than confirmations) that would help determine if accounts receivable were materially misstated. As a result, Terry reasonably estimates that his mistake **substantially increases** the likelihood that ABC would fail to detect material misstatements in accounts receivable.

If Terry's immediate superior is not informed about the sampling mistake, it is **unlikely that anyone else will discover Terry's mistake** during this audit or future audits.

When deciding whether or not to inform his immediate superior about the mistake, Terry remembered that in the past ...

[Positive REACT]... this **superior has handled similar situations positively** by turning them into constructive experiences. The superior's typical response has been, "Don't worry; making mistakes is part of the learning process. Let's figure out what happened, and see what we have to do to make it right."

[Negative REACT]... this **superior has handled similar situations negatively** by turning them into humiliating experiences. The superior's typical response has been, "I expect my auditors to be able to follow simple instructions. How could you have let this happen? You should have known better."

Please use your knowledge of and experiences in the audit workplace as a basis for answering the following questions.

- Please answer the following questions *in the order they are presented*.
- Do *not* change your responses once they are recorded.
- You *may* refer back to the case materials when answering the questions in this section.

1. Out of 100 auditors in the identical position as Terry, how many do you believe would report the mistake to their immediate superior?

_____ out of 100 auditors would report the mistake to their immediate superior.

2. List the factors that would influence auditors' decisions about whether to report the mistake. Please list up to three factors, from most (1) to least important (3).

(1) _____

(2) _____

(3) _____

3. Terry's mistake _____ the likelihood that ABC could detect material misstatements in accounts receivable.

Significantly Decreases							Does not Affect		
1	2	3	4	5	6	7	8	9	

4. With respect to the mistake, Terry is

Not at all Responsible							Completely Responsible		
1	2	3	4	5	6	7	8	9	

5. With respect to the mistake, Terry's immediate superior is

Not at all Responsible							Completely Responsible		
1	2	3	4	5	6	7	8	9	

6. If Terry *did* admit to the mistake, the effect of reporting the mistake on Terry's performance evaluation, *prepared by his immediate superior*, would be

Very Negative								Very Positive
1	2	3	4	5	6	7	8	9

6a. How influential would the potential effect on his performance evaluation be to Terry when he is deciding whether to report the mistake?

Not at all Influential								Very Influential
1	2	3	4	5	6	7	8	9

7. Professional audit standards require that Terry report the mistake.

Strongly Disagree								Strongly Agree
1	2	3	4	5	6	7	8	9

7a. How important would following professional audit standards' requirements be to Terry when he is deciding whether to report the mistake?

Not at all Important								Very Important
1	2	3	4	5	6	7	8	9

8. If Terry *did* admit to the mistake, the effect of reporting the mistake on Terry's professional reputation would be

Very Negative								Very Positive
1	2	3	4	5	6	7	8	9

8a. How influential would the potential effect on his professional reputation be to Terry when he is deciding whether to report the mistake?

Not at all Influential								Very Influential
1	2	3	4	5	6	7	8	9

9. If I were in Terry's situation, I would

Definitely not Report the Mistake								Definitely Report the Mistake
1	2	3	4	5	6	7	8	9

Please answer the following questions regarding your experiences and your opinions about this study.

- Please *do not* refer back to the case materials when answering the questions in this section.

1. The situation described in this case was

Not at all Realistic						Very Realistic		
1	2	3	4	5	6	7	8	9

2. Does the audit plan described in this case contain additional audit procedures (other than confirmations) for accounts receivable?

Yes No

3. The best way to describe Terry's superior's typical reactions to subordinates' mistakes is

Very Negative						Very Positive		
1	2	3	4	5	6	7	8	9

4. The likelihood that Terry's mistake, if unreported, would be discovered by anyone in the future is

Very Low						Very High		
1	2	3	4	5	6	7	8	9

5. During engagement planning, ABC likely assessed the risk of a material misstatement in accounts receivable as

Very Low Risk						Very High Risk		
1	2	3	4	5	6	7	8	9

6. Have you ever been in a professional situation where you had to choose between professionalism and protecting your image?

Yes No

(Optional) If yes, please explain the situation below:

7. In my experience, accounting firms' cultures _____ staff auditors to admit mistakes.

Strongly Discourage								Strongly Encourage
1	2	3	4	5	6	7	8	9

The following questions relate to background information and will be used for *classification purposes only*.

1. Gender :

Female Male

2. How much experience do you have in public accounting?

Years: _____ Months: _____

3. What level auditor are (were) you?

- a. Intern
- b. Staff
- c. Senior
- d. Manager
- e. Other (please describe): _____

4. What size firm do (did) you work for?

- a. Single office firm
- b. Regional firm
- c. Big Four firm
- e. Other (please describe): _____

5. Are you a CPA?

_____ Yes _____ No

6. Highest education level (completed or in-process):

_____ Bachelor's
_____ Master's
_____ M.B.A
_____ J.D.
_____ Doctorate

[Question 7 for Student Participants Only]

7. To which organization would you like me to send your donation?

- a. Habitat for Humanity
- b. Make a Wish Foundation
- c. The American Red Cross
- d. The Salvation Army

Thank you for your time and candid responses!

If you would like to comment on the case, please use the space provided below to share your thoughts with the researcher.