Do Disclosure Choices and Use of Specialists Reduce Perceptions of Auditor Liability?

by

Valerie Ann Chambers

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Graduate Supervisory Committee:

Philip Reckers, Chair
Jordan Lowe
Eldar Maksymov

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ABSTRACT

Auditors are required to communicate significant risks and audit strategy to the audit committee. However, the effect on perceived auditor liability of auditor disclosures to the audit committee has been ignored for the most part in the accounting literature. In an experiment, I examine how the auditor's choice to disclose a significant risk to the audit committee affects jurors' negligence assessments of the auditor. Secondarily, I examine whether assessments of auditor negligence vary with the auditor's use of a specialist. I find that disclosing a risk to the audit committee reduces jurors' negligence verdicts against the auditor. However, auditor efforts to improve audit quality through use of a specialist do not differentially affect negligence assessments, individually or interactively with disclosure choices. My results further reveal that there is no reduction of negligence assessments by disclosing risks to the audit committee if jurors do not have a pre-existing favorable view of the auditing profession and do not understand the limitations of an audit. Through mediation analysis, I show that these findings are consistent with expectations derived from psychology research examining responsibility attributions in settings with multiple causative agents, where jurors' diffuse responsibility away from the auditor and toward the audit committee. My results contribute to practice, addressing one cost/benefit consideration related to disclosures to audit committees and the use of specialists, and to accounting research examining the legal ramifications of disclosing identified audit risks.

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I. Introduction

The Public Company Accounting Oversight Board (PCAOB) recently issued Auditing Standard 16 (2012; AS 16), *Communications with Audit Committees*. The objective of Standard 16 is to "enhance the relevance and timeliness of the communications between the auditor and the audit committee" and "foster constructive dialogue between the two on significant audit and financial statement matters" (PCAOB 2012b). Subsequently, a PCAOB inspection brief describing the 2014 and 2015 audit inspection cycles indicated that approximately 93% of inspected audits documented some communication of "*significant* risks, including fraud risks…and the planned scope of the audit" (PCAOB 2016).

In 2016, the PCAOB also proposed a revised audit reporting model (PCAOB Docket 34 2016b), to include the disclosure of *critical* audit matters in the audit report. The PCAOB proposal has resulted in several research papers examining the effect on perceived auditor liability of disclosures of critical audit matters (risks) to the public. This research has produced mixed findings (e.g. Brasel, Doxey, Grenier, & Reffett, 2016; Gimbar, Hansen, & Ozlanski, 2016; Brown, Majors, & Peecher, 2016; Sirois, Bédard, & Bera, 2016; Backof, Bowlin, & Goodson, 2017). Little research to date, however, has focused on the liability effects of disclosures of *significant* (but not necessarily *critical*) audit risks to the audit committee, in accordance with AS 16. My research centers on that gap and the potential diffusion of responsibility through auditor engagement of the audit committee.

I leverage prior research in the psychology, law, and accounting fields to motivate my hypotheses. Studies in each of these disciplines have shown that evaluators engage in

attributional discounting when given a plausible alternative cause, reducing causal attributions to the original cause (Kelley, 1973; Heiman, 1990; Kaye, 2016; Kachelmeier, Schmidt, & Valentine, 2017; Backof et al., 2017). Recent literature in psychology studying responsibility attributions in the presence of multiple causative agents also has provided initial evidence that evaluators counterfactually consider the role of each agent in bringing about a joint outcome, resulting in a diffusion of responsibility (Chockler & Halpern, 2004; Prentice, 2012; Zultan, Gerstenberg, & Lagnado, 2012; Gerstenberg & Lagnado, 2014). Given the potential for both attributional discounting and diffusion of responsibility effects, I expect that the auditor's disclosure of risks to the audit committee will reduce the prospective jurors' (hereafter, "jurors") attributions of responsibility to the auditor, relative to that of the audit committee. The reduced attributions of responsibility to the auditor will lead to lowered assessments of auditor negligence. I further expect that the jurors will attend to signals of quality intentions, associated with the use of a specialist, and in doing so, also reduce attributions of auditor responsibility and assessments of auditor negligence.

Psychology research also describes the influence of jurors' pre-existing attitudes on verdict decisions, which can occur through effortful processing, use of heuristics, or biased information search (Lord, Ross, & Lepper, 1979; Pennington & Hastie, 1981; Patterson & Neufer, 1997; Chen & Chaiken, 1999; Alicke, 2000). Applications in accounting have demonstrated that jurors' assessments of auditor negligence are influenced by the jurors' pre-existing attitudes toward and expectations of the auditor (Jennings, Kneer, & Reckers, 1993; Arel, Jennings, Pany, & Reckers, 2012). These studies provide evidence that jurors with more negative pre-existing attitudes toward the

auditor and less understanding about the purpose and limitations of an audit are increasingly likely to find auditors more negligent, "regardless of the auditors' work done on the audit" (Arel et al., 2012). This suggests that jurors' pre-existing attitudes will moderate potential benefits gained from disclosure. Further, due to the influence of attitudes on information processing demonstrated in psychology studies, I expect that attitudes will affect jurors' assessments of auditor negligence by affecting jurors' attributions of auditor responsibility.

To address these issues, I conducted an experiment in which I manipulated (1) whether the auditor disclosed a fraud risk to the audit committee or only documented the risk in the audit work-papers; and (2) whether the auditor utilized a forensic specialist to help plan audit procedures in light of the identified elevated fraud risk. I further measured participants' attitudes toward auditors prior to the experiment and utilized two partitioned attitude measures in my analyses. Participants assumed the role of a juror and rendered attribution of responsibility judgments and assessments of negligence. Though my primary interest lies in the effects of auditor disclosure, pre-existing attitudes, and use of a specialist on jurors' assessments of auditor negligence, I also measure participants' attributions of auditor responsibility to gain further insight into the jurors' decision-making process.

I anticipated (and found) that jurors reduced assessments of negligence against the auditor when the auditor disclosed the fraud risk to the audit committee. Additionally, I observed an interaction between jurors' pre-existing attitudes toward the auditor and disclosure to the audit committee, such that disclosure only reduced jurors' assessments of auditor negligence when juror attitudes toward auditors were more favorable. I further

observed that the joint effect of auditor disclosure and jurors' pre-existing attitudes toward the auditor on assessments of negligence was mediated by jurors' attributions of auditor responsibility. Those jurors who were more favorably inclined toward auditors recognized the oversight responsibility role held by the audit committee and diffused responsibility for the undiscovered fraud away from the auditor. I did not find an effect of auditor utilization of a forensic specialist on either attributions of responsibility or assessments of negligence.

This study makes a practical contribution to the auditing profession in respect to disclosures to audit committees under AS 16 and the use of specialists. I also contribute to literatures in psychology and accounting with respect to the general area of attributions of "blame" under conditions of multiple causative agents. At the same time, this study extends research related to the specific area of legal liability. Though my study is not the first to examine the effects of auditor risk disclosures in a legal setting, extant research has largely focused on disclosures to the public (e.g. critical audit matter research by Brasel et al., 2016; Gimbar et al., 2016; Brown et al., 2016; Backof et al., 2017; and Kachelmeier et al., 2017). Mandated disclosures to the public are currently under consideration by the PCAOB. My study, however, examines the consequences of current and on-going regulations related to audit committee disclosures. Current regulations require auditors to disclose significant risks to clients' audit committees, but provide little operational guidance as to which risks to disclose. Diverse views exist regarding the consequences of doing so.

II. Literature Review and Hypothesis Development

Audit Committee Responsibility and Liability

In my research, I examined the potential for reduced assessments of auditor negligence due to diffusion of responsibility toward the audit committee in a civil liability setting. This potential has increased in likelihood given recent mandates for increased audit committee responsibilities related to the oversight of the financial statement reporting process. These mandates have come from the Securities Exchange Commission (SEC), Congress (the Sarbanes-Oxley Act of 2002; hereafter SOX), and stock exchanges (through listing requirements) (NYSE, 2013; NASDAQ, 2009; SEC, 2003; SOX, 2002). "Audit committees have become an essential means through which boards of directors oversee the integrity of the company's financial reporting process, system of internal control, and the financial statements themselves" (PCAOB, 2010, p 2). Further, each of the Big Four public accounting firms has issued guidance publications to assist the audit committees of their clients; three major responsibilities are routinely identified:

(1) Oversee internal controls related to fraud and financial statement risks

(2) Ensure financial statements are "understandable and transparent," and

(3) Regularly assess fraud risks and oversee the design and execution of remedial antifraud controls (EY, 2014).

Enhanced audit committee responsibility has brought with it increased legal liability in cases of financial statement misstatements, consistent with "gatekeeper

liability" philosophy (Alzola, 2017)[1]; and audit committee members are more likely today than other board members to be named in lawsuits (Hogan, Schmidt, & Thompson, 2014). Accounting firms' guidance and the results of lawsuits against audit committee members indicate that the responsibilities attributed to audit committees are significant to the integrity of the financial statement reporting process.

Nonetheless, no prior published academic research has addressed changes in auditor liability given the auditor's judgment to disclose a risk to the audit committee, although one recent working paper has provided initial evidence of a relationship between the composition of the audit committee and auditor liability (Phillips, Jollineau, & Jane, 2015). I argue accordingly that further research in this area should be conducted as the role of the audit committee evolves and registers a potential effect on auditor liability.

Diffusion of Responsibility through Attributional Discounting

As jurors consider the party (or parties) legally responsible for the plaintiff's losses, the actions or inactions of an informed audit committee can serve to provide an alternative explanation for the undiscovered fraud. This alternative explanation,

[1] Coffee (2002) clarifies as follows; ''the gatekeeper model is a third party enforcement strategy that relies on the fact that it may be easier to deter a third party who has little to gain than an entrepreneur who has a significant stake in a questionable transaction.'' (p. 8). Therefore, collateral liability is a sort of non-ideal theory. Direct deterrence is the norm for enforcing the law. But when too many wrongdoers remain unresponsive to feasible legal penalties, when misconduct is too expensive to detect or prosecute, when there are constraints on actual penalty levels, when punishing impose high administrative expenses—that is, when direct deterrence fails—third party enforcement serves as a remedial answer to preventing or precluding misconduct. (Alzola, 2017). Alzola observes "Accountants and lawyers make attractive legal gatekeepers because they have large and vulnerable investments in licenses and reputations, so they stand to lose too much if their misbehavior is detected." Audit committee members have now been established by regulators as additional "gatekeepers" and as such incur related "gatekeeper liability".

according to Kelley's theory of attributional discounting (1973), should discount, or diffuse, the auditor's responsibility for a negative outcome (Latane & Darley, 1968).

Evaluators can be expected to discount "the role of a given cause in producing a given effect…if other plausible causes are also present" (Kelley, 1973; DiVitto & McArthur, 1978). In the practice of law, defense attorneys are allowed to use, and frequently succeed with, an "empty chair defense" strategy (KPMLAW, 2016; Kanner, n.d.; Kaye, 2016). The "empty chair defense" claims that a party not involved in the trial is responsible for the plaintiff's losses, in efforts to diffuse responsibility and blame away from defendants (KPMGLAW, 2016). With a solid "empty chair defense" presentation, "the jury is more likely to believe that there is a player with a share of the fault who is not before the court and may allocate higher fault to the empty chair if it perceives the empty chair as having significant fault" (Peterson, 2009).

Research examining responsibility attributions in product liability cases by extension suggest diffusion of legal responsibility in professional services contexts. I argue that auditor disclosures of perceived risks are analogous to product liability warnings by manufacturers and pharmaceutical companies. To this point, Laughery, Laughery, Lovvoll, McQuilkin, and Wogalter (1998) and Wogalter, Brantley, Laughery, and Lovvoll (1998) found that manufacturers were allocated less responsibility for product failure harm when they previously issued a warning. Even more analogous to my audit failure setting, Kalsher, Viale, and Williams (2003) found that manufacturers receive less blame for product failures when they have issued a high-quality warning to distributers, even when distributers failed to take action to act upon the warning.

Additional instances of discounting and diffusion effects can be found in the accounting literature. Heiman (1990) demonstrated that auditors engaged in analytical reviews discount their initial assessments of the likelihood of a hypothesized cause when alternative explanations are provided. Further, Heiman attributed the discounting effect to the number, not the strength, of the additional explanations (either received or self-generated). More recently, accounting researchers have examined discounting effects in critical audit matter (CAM) disclosure settings, where disclosures are to the public. Kachelmeier et al. (2017) suggests, as do others, that the auditors' CAM disclosures are effectively construed as warnings, or disclaimers of responsibility, of increased risk and this accounts for reduced auditor liability. Backof et al. (2017) also report that jurors' perceptions of auditor control (a responsibility concept) are discounted when the auditors clarify the meaning of 'reasonable assurance' in the audit report. Taken together, prior and concurrent findings in psychology literature, the legal profession, and academic audit research support the hypothesis that attributional discounting will occur in an audit liability context in the presence of audit committee disclosure warnings.

Diffusion of Responsibility through Counterfactual Reasoning

In quite recent psychology research studying attributions of responsibility in settings of multiple causative agents, a number of studies further observe that counterfactual analyses influence many judgments of responsibility (Chockler & Halpern, 2004; Prentice, 2012; Zultan et al., 2012; Gerstenberg & Lagnado, 2014). These observations in psychology are consistent with the legal concept and primacy of causation, which requires a counterfactual relationship between the defendant and the plaintiff's harm. This counterfactual relationship specifies that the plaintiff's harm would

not have occurred "but for" the defendant's negligent actions (G'Sell, 2016). That is, A → B; and if not A, then not B. However, psychology and legal scholars have noted that the "but for" test is problematic as an outcome becomes *"overdetermined"* in instances of more than one causative agent (Wright, 1985; G'Sell, 2016; Gerstenberg & Lagnado, 2012). That is, standard counterfactual reasoning leads to non-normative conclusions.

To address concerns of *over-determination*, Chockler and Halpern (2004) develop a model of structural equations (the Structural Model) which relaxes the strict causation requirement of the "but for" test and allows a cause to be counterfactually partially responsible. In other words, "A is a cause of B if and only if there is a *possible situation* under which B counterfactually depends on A" (Gerstenberg & Lagnado, 2010).

Zultan et al. (2012) and Lagnado, Gerstenberg, and Zultan (2013) extend the Structural Model to test partial responsibility assessments in situations where multiple causative agents are present. Their extended model, thus, is a model of responsibility diffusion. Zultan et al. (2012) identify causative agents to be responsible if they are pivotal in a situation, "whereby pivotal means that the outcome counterfactually depends on [a single party's] action." The assessed responsibility for each agent is determined by the number of counterfactual links required to make the agent pivotal, with an increasing number of links yielding decreased responsibility. Experiments performed by Zultan et al. (2012) confirm that responsibility attributions are not merely evenly diffused across the number of agents, but that the degree of responsibility is related to the agents' pivotality. The concept of pivotality resolves the concern of *overdetermination* associated

with simple counterfactual responsibility attributions in instances of multiple causative agents (Lagnado et al., 2013).[2]

Within this model, the auditor changes their pivotality in relation to the undiscovered fraud with the disclosure of risks to the audit committee. In the case of disclosing risks to the audit committee, the auditor adds an additional counterfactual link to the relationship between their audit and the undiscovered fraud thereby reducing their responsibility under the model, while simultaneously increasing the audit committee's pivotality. Warning the audit committee of increased risks via disclosure introduces both (a) a second pivotal causative agent (the audit committee) and (b) a second causal explanation (the audit committee's inaction or failed action). Both of these conditions serve to reduce the likelihood of sole assignment of the burden of responsibility on the auditor. This recent line of research in psychology, thus, adds additional support for responsibility diffusion to occur. I further expect that the diffusion of responsibility will reduce jurors' negligence assessments against the auditor.

Intentionality and Audit Legal Liability

Negligence assessments directly relate to the degree to which the service professional exercised due professional care – that is, acted in a manner consistent with legislative and regulatory mandates and consistent with what other professionals would have done. Arguably, defendants' conduct also may be evaluated on the basis of their intention to exercise due professional care (Proving Fault, 2017). Intentionality (scienter) is admittedly very difficult to discern and argue in most legal proceedings absent direct

[2] Lagnado et al. (2013) nonetheless acknowledges that while their model is "intuitive" and arguably descriptive of lay responsibility assessments, it is not necessarily normative, nor necessarily complies with standards of admissibility in courts. Still, it is instructive with regard to jury deliberative processes.

conspiracy (Park, 2017). Still, jurors may infer intentionality, even when directed by the court otherwise. Specifically, I expect jurors will infer the auditor's positive intentions to discover potential frauds when the auditor warns the audit committee of risks. Speaking to this point, when proposing the current AS 16 standard, the PCAOB noted, "an audit committee that is well-informed about accounting and disclosure matters relating to the financial statements under audit might be better able to carry out its role of overseeing the audit and the financial reporting process" (PCAOB, 2010).

When the auditor is more proactive in communicating perceived risks, I expect that jurors will infer greater positive auditor intent. Jurors' inferences about greater positive intention, in turn, are expected to reinforce beliefs of lower responsibility and, therefore, reduce assessments of negligence against the auditor. Tension admittedly exists, given prior research examining the influence of hindsight bias. That research suggests that disclosing risks to the audit committee may increase perceived foreseeability, working against auditors' interests by suggesting auditors should have done more. That is, when assessing auditor liability, jurors (and judges) have been found to fall prey to a phenomenon known as hindsight bias, or the ex post belief that the outcome was "relatively apparent in foresight" and more should have been done (Lowe & Reckers, 1994; Anderson, Jennings, Lowe, & Reckers, 1997; Jennings, Lowe, & Reckers, 1998; Kadous, 2001). Further, some recent research has reported that auditor documentation of risks, in the planning stages of an audit, leads to juror perceptions of greater outcome foreseeability; and those perceptions of greater foreseeability, in turn, have been linked to higher negligence assessments (Gimbar et al., 2016; Backof et al., 2017). Nonetheless, I expect that the positive effects of diffusion of responsibility, gained

by disclosure to the audit committee, will over-shadow the negative effects of perceptions of enhanced foreseeability.

In summary, I expect that the warning given to the audit committee, in the current environment of significant audit committee responsibilities for financial statement risk oversight, will result in a recognition that multiple pivotal parties contributed to the undiscovered fraud. In this case, where the increased risk was known, and therefore foreseeable, to both the auditor and the audit committee, jurors will perceive, I contend, that the auditor has lower relative (and not sole) responsibility for the undiscovered fraud. Therefore, I expect that the audit committee engagement via disclosure will reduce negligence attributions to the auditor.

H1: Risk disclosures to the audit committee by the auditor will decrease jurors' assessments of auditor negligence.

Though I expect to find reductions in negligence assessments when the auditor discloses increased risks to the audit committee, research and practice in law, along with research in psychology and accounting, suggests that the effect may be moderated by jurors' pre-existing attitudes toward the auditor. I turn to this discussion next.

Juror Attitudes in Psychology Research

Legal decision-making models initially portrayed jurors as mathematical reasoners, able to weigh and evaluate individual pieces of information independently from each other in determining liability judgments (Winter & Greene, 2007). In a shift from these legal models, explanation-based approaches portray jurors as "active decision-makers who interpret, evaluate, and elaborate on the trial information" (Winter & Greene, 2007). Related research has shown that jurors' pre-trial beliefs and attitudes indirectly

affect liability assessments by influencing how the information received during the trial is processed, stored, and retrieved (Thompson, Cowan, Ellsworth, & Harrington, 1984; Casper, Benedict, & Kelly, 1988; Casper, Benedict, & Perry, 1989). Kelley and Michela (1980) state that an individual's attitudes can take precedence over externally provided environmental information in the formation of causal attributions. Further, Hans and Jehle (2003) observe, "attitudes tend to be more powerful predictors of verdict choices than demographic characteristics." Though judges and lawyers use the *voir dire* process in an attempt to remove potentially biased jurors from jury panels, evidence exists that those attempts frequently fail (Hans & Jehle, 2003; Marder, 2015). Thus, participants serving on a jury may still be influenced by their pre-existing attitudes.

Two explanation-based approaches "emphasize jurors' cognitive organization or representation of the evidence" (Winter & Greene 2007). Both approaches incorporate preconceptions and prior beliefs. First, Pennington and Hastie (1981, 1992, 1993) provide evidence in their seminal "story model" that jurors use their prior experiences and attitudes as a basis to construct narratives about trial evidence. Evidence inconsistent with jurors' pre-existing beliefs is discounted or disregarded (Hans & Jehle 2003). Pennington and Hastie (1992) also found that jurors' liability judgments are based upon their constructed narratives. Therefore, the attitudes upon which jurors base their narratives influence the effortful assimilation of information and, by extension, their final judgment.

Chen and Chaiken's (1999) heuristic-systematic model similarly recognizes that jurors may not choose or have the capacity to fully engage in effortful information processing. Rather, jurors may rely upon heuristics as a mental mechanism to make sense of complex trial information in order to reach a final determination of culpability.

Anchoring and adjustment is one such heuristic (Tversky & Kahneman, 1975) and it has been shown especially to apply where evaluators engage in attributional discounting across multiple causative agents (McClure, 1998). "Juror beliefs often serve as invisible anchors in the courtroom" (Anderson, 2012). After anchoring on their pre-existing beliefs and attitudes, jurors utilizing heuristic processing make minor adjustments to their initial judgments upon learning of alternative causes (Morris & Larrick, 1995). The anchoring and adjustment heuristic often leads to under-adjustment (Jones, 1979); where jurors under-adjust from their initial attitudes toward defendants, their final judgments are influenced in the direction of their initial attitudes.

Other explanations also exist for the biased influence of prior beliefs and attitudes on legal judgments. Noted above, efforts to remove biased jurors from the jury panel are not always successful. While limitations in the trial process (e.g. running out of peremptory challenges) may result in jurors with explicit, or reportable, biases, it is also probable that jurors hold implicit biases that they cannot self-report in *voir dire* questioning (Kang, Bennett, Carbado, & Casey, 2011). Jurors engaging in confirmation bias are likely to overweight evidence supporting and underweight evidence contradicting their pre-existing attitudes (Lord et al., 1979; Patterson & Neufer, 1997; Carlson & Russo, 2001). In addition to seeking or discounting evidence in a biased manner, jurors may also be motivated by their pre-existing attitudes to assign blame to parties in the trial. Alicke (2000) posits that an evaluators' overall blame assessment is a combination of an initial expectation and a blame validation process, where "observers are inclined to blame the actor or actors who (a) arouse the most negative affect or (b) whose behavior confirms unfavorable expectations" (Alicke, 2000). Where jurors are motivated to assign

blame, their pre-existing attitudes can influence the direction of their final liability judgments.

Juror Attitudes in Applied Research

More applied studies of juror decision-making also frequently report that jurors use personal beliefs and attitudes in attributing causal responsibility for bad outcomes. One of the largest bodies of research relating to the influence of initial beliefs is research pertaining to the effects of pretrial publicity. Though I do not manipulate juror receipt of pretrial publicity in my experiment, I nevertheless expect that jurors' pre-existing attitudes toward auditors have been similarly formed from prior experiences and prior public information about auditors and audit failures. I argue that findings in this area of research are analogous to my setting. Research on pretrial publicity examines the effects of negative pretrial impressions (i.e. attitudes) on liability, finding that jurors do not disregard their initial impressions about defendants when making their verdict decisions (Steblay, Besirevic, Fulero, & Jimenez-Lorente, 1999). Specifically, Ruva and Guenther (2015) found that jurors who were exposed to negative pretrial publicity about the defendant believed the defendant to be less credible, interpreted ambiguous trial facts in a pro-prosecution manner, and rendered guilty verdicts more frequently than jurors who did not receive negative pretrial publicity. In a meta-analysis of pretrial publicity research, Steblay et al. (1999) likened negative pretrial publicity to "a belief framework of defendant culpability" which "directs the juror's attention and provides a filter through which subsequent evidence is perceived." The jurors' use of negative initial impressions to construct a framework and evaluate evidence within this framework is consistent with Pennington and Hastie's (1981) story model.

Juror Attitudes toward Auditors

Relevant accounting research has also demonstrated that jurors' negligence judgments can be highly influenced by pre-existing attitudes toward auditors (Jennings et al., 1993; Arel et al., 2012).[3] Jennings et al. (1993) tested the interaction of jurors' pre-existing attitudes toward auditors with the auditor's use of a decision aid. In the absence of a decision aid giving specific audit guidance, they found that jurors with more negative pre-existing attitudes rendered higher liability judgments. The researchers noted that the decision aid appeared to serve as an anchor for jurors and, without the decision aid, the jurors anchored on their pre-existing attitudes. Arel et al. (2012) tested the interaction of jurors' pre-existing attitudes toward auditors with the auditor's reliance on the work of the client's or outsourced internal auditors. The researchers found that jurors' negative attitudes significantly affected negligence assessments, regardless of the auditor's reliance on either internal audit group or audit quality. Though research examining the effect of juror attitudes on assessments of auditor liability are few in number, the results of existing work provide consistent evidence that jurors' pre-existing attitudes toward the auditor do matter in determining liability outcomes.

Joining evidence from law and accounting research with psychological models of juror decision-making, I hypothesize that jurors' pretrial attitudes toward auditors will interact with auditor disclosures to influence jurors' evaluations of auditor negligence. In

[3] Most recently, Backof (2015) tested the relationship of jurors' impressions of the auditor (favorable/unfavorable) with assessments of auditor control over a financial misstatement. The researcher found evidence that a relationship does exist, such that favorability of impressions is negatively related to perceptions that the financial misstatement was foreseeable to the auditor. While the findings of Backof (2015) appear somewhat consistent with findings from the body of pretrial publicity research, it is important to note that the post-experimental question about juror impressions of the auditor cannot be established as a causal factor of juror liability assessments.

particular, jurors with a general favorable (unfavorable) bias toward auditors and a low (high) level of understanding about the limitations of an audit will use these attitudes as prior expectations to frame or anchor their assessments of the auditor (Frank, Lowe, & Smith, 2001; Kadous, 2001; Arel et al., 2012; Backof, 2015). More specifically, I expect that evaluations of the auditor's negligence in the presence of disclosure will be less only when jurors' pre-existing attitudes are more favorable.

H2: Pre-existing juror attitudes will interact with disclosures/non-disclosures to the audit committee such that disclosures will associate with lower negligence assessments only in the presence of more favorable pre-existing attitudes.

Mediated Moderation

Psychology research has established that attitudes can influence juror evaluations through multiple paths. According to Pennington and Hastie's (1981) story model, attitudes influence the effortful assimilation of information. According to Chen and Chaiken's (1999) heuristic-systematic model and Tversky and Kahneman's (1975) heuristic processes, attitudes can serve as an anchor which jurors adjust from based on subsequent evidence received. Further, pre-existing attitudes can motivate blame and responsibility assignments (Alicke, 2000) or lead jurors to seek and overweight confirmatory evidence (Lord et al., 1979; Patterson & Neufer, 1997; Carlson & Russo, 2001). In each of these models, attitudes affect the way information is received and processed.

As discussed above, I expect a diffusion of responsibility to occur under conditions of audit committee disclosure, resulting in lower assessments of auditor negligence. I further expect that the extent to which responsibility is diffused will depend

on jurors' pre-existing attitudes. Specifically, I expect that when jurors have favorable pre-existing attitudes toward the auditor, the beneficial effect of disclosing risks to the audit committee will be mediated by diffusion of responsibility for the undiscovered fraud away from the auditor. However, when the juror has negative pre-existing attitudes toward the auditor, disclosure of increased risks to the audit committee will be unable to shift responsibility away from the auditor and, therefore, reduce negligence assessments.

H3a: Pre-existing juror attitudes will interact with disclosures/non-disclosures to the audit committee such that disclosures will associate with lower attributions of responsibility only in the presence of more favorable pre-existing attitudes.

H3b: Jurors' attributions of responsibility will mediate the influence of juror pre-existing attitudes and audit committee disclosures on assessments of negligence.

Improving Audit Quality- Use of Forensic Specialist

Normatively, auditors should be evaluated based on the quality of their work, and not solely on outcomes. Bad outcomes can follow good decisions; and good outcomes can follow bad decisions. Accordingly, auditors who perform higher quality audits should be evaluated more positively. There are a number of both quantitative and qualitative audit program options that auditors might implement to improve audit quality (CAQ, 2014). The cost and benefits of different options, of course, are often difficult to assess, and especially so in hindsight.

Among common options available to the audit team is the use of an industry or functional specialist, such as a technology, fraud, or valuation expert. Auditing standards recommend, but do not mandate, that auditors use specialists (SAS 99; SAS 109). The use of a forensic, or fraud, specialist has been shown to yield net benefits, including

greater incidence of fraud discovery, although costs can be significant (Brazel, Carpenter, & Jenkins, 2010; Jenkins, Negangard, & Oler, 2013). It is my contention that the auditor's decision to use an expensive forensics specialist speaks to the issue of auditor intentionality to do a high quality audit; that is, to do what is necessary to avoid bad outcomes (Backof, 2015). Prior research has found that the use of a specialist can favorably influence jurors' liability evaluations (Kadous, 2000; Reffett, Brewster, & Ballou, 2012; Grenier, Lowe, Reffett, & Warne, 2015; Brown, Grenier, Pyzoha, & Reffett, 2016).

Tension nonetheless exists. Actions taken with the intention to mitigate failures also can remind evaluators that the actor is aware of heightened risk. Accordingly, an enhanced level of audit quality has not always been found to be sufficient to reduce liability assessments in the event of a bad outcome, and sometimes increase liability assessments (Kadous, 2000; Reffett, 2010; Reffett, 2011; Maksymov & Nelson, 2016). It always can be asserted that whatever the auditor did, it was too little under the environmental conditions. As an example, the decision to use a forensic expert from another firm or from another office within a national firm may provide a highly salient signal of not only auditor intent but also the audit team's motivating expectation of a heightened risk of fraud occurrence. In this regard, Backof (2015) finds that jurors perceive accounting misstatements to be more foreseeable when the auditor's documentation indicates heightened risk concerns. This increased expectation of foreseeability can be attributed to jurors' use of heuristic processing and their dependence upon outcome-consistent facts that are easily brought to mind (Tversky & Kahneman, 1973; Backof, 2015). Recently, Maksymov (2016) provides experimental evidence that

actions taken by management to compensate for internal control failures signal increased foreseeability of the failure. Thus, prior accounting studies suggest that actions taken with the intention to mitigate failures also can remind evaluators that the actor is aware of heightened risk, and may not have adequately compensated.

The predicted effects of the use of a specialist on a final assessment of auditor negligence, thus, are complex. That is, the use a specialist may increase perceptions of foreseeability (working to the disadvantage of an auditor defendant) but also increase perceptions of positive auditor intentions and due process (working to the advantage of an auditor defendant). Although limited in number and utilizing a variety of specialist types and settings, prior accounting research regarding the use of a specialist generally indicates that use of a specialist improves jurors' negligence assessments (Kadous, 2000; Kadous, 2001; Reffett et al., 2012; Grenier et al., 2015; Piercey, Simon, & Stephens, 2016; Brown et al., 2016) though not necessarily through changes in perceived intent. Kadous (2000, 2001), Reffett et al. (2012) and Grenier et al. (2015) manipulated consultation with an inventory specialist; and found that jurors reward higher audit quality efforts with lowered negligence awards.[4,5] Sonnier et al. (2012) similarly found that auditors who are industry specialists receive a lower likelihood of negligence

[4] Kadous (2000) (or Kadous, 2001) only finds a reduction in auditor negligence assessments associated with higher audit quality (i.e. using an inventory specialist) when the consequences of the audit failure are moderate (or not specified), rather than severe. While the audited firm in my experiment ends in bankruptcy, with large creditor losses (analogous to Kadous' severe consequences condition), I do not (1) incorporate large investor losses or (2) make salient that a significant number of employees lost their jobs. Therefore, it is not clear *ex ante* how severe the experimental participants will consider the consequences of the audit failure to be in their evaluations of auditor negligence and blame.

[5] In Grenier et al. (2015), the specialist manipulation involves the specialist receiving a bribe from the client and subsequently lying to the auditor. Thus, while the authors find a main effect of reduction in negligence assessments from using a specialist, it is not apparent if participants were more motivated to shift blame to the specialist away from the auditor.

assessments than those auditors who are not industry specialists. Piercey et al. (2016) found that industry specialist auditors are less likely to be held liable for undetected fraud than for undetected errors, though they do not find differences between the liability of industry specialist vs non industry specialist auditors when there is undetected fraud. Brown et al. (2016) found that using a valuations specialist to evaluate management's valuation of asset-backed securities results in lower negligence assessments. In light of these findings, I predict and test a main effect for using a specialist on negligence assessments. However, predicting interactions with disclosure and/or attitudes appears highly speculative, given the lack of findings related to intentionality by Backof (2015) and Gimbar (2016). Accordingly, I do not hypothesize any interactions.

H4: The use of a forensics specialist by the auditor will decrease jurors' assessments of auditor negligence.

III. Experimental Design

Design

My experiment used a 2 × 2 × 2 × 2 between-participants design, manipulating the auditor's fraud risk disclosure to the audit committee at the beginning of the annual audit and the auditors' use of an internal forensic specialist to plan audit procedures related to an account with elevated fraud risk. I also use two partitioned measures of pre-existing juror attitudes: cynicism and understanding.

Participants

One hundred twenty-nine jury-eligible adults participated in the study, recruited from the Amazon Mechanical Turk ("MTurk") crowdsourcing website. Participants were paid $2.00 via their Amazon accounts for an average of 24 minutes. MTurk has been

shown to be representative of the United States population (Paolacci, Chandler, & Ipeirotis, 2010) and to provide results replicable of prior judgment and decision-making research (Paolacci et al., 2010; Horton, Rand, & Zeckhauser, 2011). Other recent audit-focus juror studies utilizing MTurk to gather participants include Rasso (2014), Grenier et al. (2015), Brown et al. (2016), Brasel et al. (2016), and Maksymov and Nelson (2017).

When establishing a worker MTurk account, workers must certify that they are at least 18 years of age, which is the age required to sit on a jury (Amazon Mechanical Turk 2014). Amazon confirms identifying information, including social security number and age, with the IRS (Amazon Payments, 2016). To represent the judicial requirement that a person be a United States citizen, I utilized the MTurk qualifications functionality to allow only participants accessing the survey from an IP address located within the United States. I eliminated four sets of responses from workers indicating they work in the accounting or law fields, as these prospective jurors are likely to be eliminated from the jury pool during *voir dire* proceedings.

Materials and Experimental Procedure

Participants who chose to access my task in MTurk read an initial description stating the case was about jury decision-making. Participants were notified that they must correctly answer 80% of attention checks in the case. If they consented, participants were directed to one of four instruments, administered via Qualtrics. Participants read a brief description of the case, rated self-assessment statements about personal attitudes, and then read background information about the audit process, the role of the audit committee, the auditor, and the circumstances surrounding the negligence case. Throughout the background readings, participants were required to answer five multiple-

choice questions designed to ascertain their comprehension of the background material. Those participants who began the survey but did not accurately answer 80% (or four of five) of the comprehension check questions correctly were eliminated from the experiment prior to giving their responses to the dependent measures.[6]

Remaining participants then read about the audit for an in-home entertainment streaming company, the audit outcome, and a civil negligence case brought against the auditor for undetected financial statement fraud. The plaintiff, a commercial bank, claimed losses on a loan given to the audited company after the company was forced into bankruptcy following a covered-up revenue fraud scheme perpetuated by a mid-level manager. Both plaintiff and defense positions were described. Subsequently, participants assessed auditor liability and answered manipulation check, supplemental, and demographic questions.

Manipulated Independent Variables

Assigned conditions represented a manipulation of how the auditor documented or communicated fraud risks (i.e., documented only in the audit work-papers or also in early audit communications to the audit committee) and a manipulation of forensic specialist involvement in the audit team planning session (participated and did not participate).

Under both significant risk disclosure conditions, the auditor had determined that the audit fraud risk for subscription revenue was significant and required a "greater than

[6] Those who did not complete the task, either because they elected to quit or were eliminated, were not compensated, and any information received prior to their departure from the task is excluded from further analysis.

normal" level of audit work. In the work-paper documentation (audit committee memo) condition, the audit partner judged that the risks identified over subscription revenue would not (would) be communicated with the audit committee. The risks and audit procedures described in the instrument are identical across all conditions.

In both forensic specialist manipulations, participants were informed that the audit team identified subscription revenues as a significant audit fraud risk and the audit partner was aware of risk factors such as rapid industry growth conditions and fierce competition among the company and competitors for customer subscriptions. In the no specialist involvement condition, the partner did not request assistance from a forensic specialist. In the specialist involvement condition, a team of two forensic specialists from the audit firm's national office joined in the audit planning meeting and recommended audit procedures for subscription revenues. Planned audit procedures were the same across both conditions, regardless of forensic specialist involvement, holding actual audit quality constant across these conditions.

Moderating Variables – Pre-existing Attitudes

To ascertain jurors' pre-existing attitudes, I used a psychometric measure of attitudes toward auditors, which has been demonstrated to influence juror negligence assessments in prior accounting literature (Reckers, Jennings, Lowe, & Pany, 2007; Jennings, Pany, & Reckers, 2008; Arel et al., 2012). At the beginning of the experiment, participants used an 11-point scale to indicate their level of agreement with statements about auditors and the audit profession. The statements and their mean, median, and mode responses are included in Appendix A. Using principal components analysis (PCA) with varimax rotation, the statements were factored into two different attitudes,

measuring participants' cynicism about auditors and understanding about limitations inherent in the audit profession. For use in analysis as categorical measures, I split these factors at the median and responses above (below) the median were classified as "high" ("low").[7] To test predictions that juror attitudes interact with auditor disclosure, I use the two partitioned variables as measured independent variables in all analyses to represent jurors' pre-existing attitudes toward auditors.

Dependent Variables

Following prior literature (Kadous, 2000 and 2001; Reffett, 2010; Reffett et al., 2012; Backof, 2015, Grenier et al., 2015; Maksymov & Nelson, 2016; Brown et al., 2016), the experiment measured participants' evaluations of auditor negligence through a scaled assessment of negligence probability (0 = Not at all probable and 10 = Completely probable) and a yes/no auditor negligence verdict decision. Those participants who rendered a "negligent" verdict decision also were asked to decide on appropriate compensatory damages against the auditor ranging from $0-$9 million, where $9 million represented the total loss by the plaintiff when the audit client declared bankruptcy due to fraudulent revenue recognition.

After assessing the auditor's negligence, jurors responded to questions assessing the auditor's responsibility for not discovering the fraud (0 = Not at all responsible, 10 = Completely responsible) and the audit committee's responsibility for not discovering the

[7] The cynicism factor primarily consists of the statements "The big auditing firms make plenty of money in the good times, so they should also share in the stockholders' losses in the bad times" and "The big corporations and their big auditors (CPAs) work hand-in-glove and only tell the public what they want to tell them," with factor loadings of 0.78 and 0.85, respectively. The understanding of auditor limitations factor primarily consists of the statements "The financial statements contained in the annual report to stockholders are primarily the responsibility of corporate management, and not of the external auditor" and "External auditors cannot look at every client transaction. They must rely on samples and tests of relationships in conducting the audit," with factor loadings of 0.61 and 0.74, respectively.

fraud (0 = Not at all responsible, 10 = Completely responsible). I calculated a net measure of relative auditor responsibility by subtracting beliefs of audit committee responsibility for the undiscovered fraud from beliefs of auditor responsibility for the undiscovered fraud. The result is a continuous measure of relative auditor responsibility, where +10 equals full responsibility toward the auditor and -10 equals full responsibility toward the audit committee, which I use to test the mediation hypotheses H3a and H3b.

Covariate

Given the hypothesized influence of pre-existing attitudes on jurors' judgments of auditor negligence, I expect that jurors' level of general expectations of others could also influence their negligence assessments and should be controlled in my analyses. In particular, jurors' level of perfectionism is a trait that jury consultants watch for in the jury selection process (Plotkin, 2007). As Plotkin noted, perfectionists "make decisions in a far more demanding and careful way" and "have significantly different definitions of preponderance." Hewitt and Flett (1991) developed a model of perfectionism, which captures one's standards of performance for (1) themselves based on internal motivations, (2) themselves based on social motivations and, (3) others. Of particular interest, those with high standards of performance for others, or "other-oriented" perfectionists, "expect others to be perfect, and are highly critical of others who fail to meet these expectations" (Stoeber, Sherry, & Nealis, 2015). Because the auditor defendant has already proven to be imperfect by missing the financial statement fraud, I expect that jurors with high other-oriented perfectionism traits will be more critical of the auditor. Therefore, I utilize the "other-oriented perfectionism" scale to control for general expectations. Specifically, participants in my experiment responded to an 11-point scale indicating their agreement

with 15 self-assessment statements about their expectations of others. Factor analysis (PCA with varimax rotation) of these 15 items yielded three factors, with one factor loading on general statements about others.[8] I used this factor, labeled "General Expectations" as a covariate in my analyses, and found it significant.

IV. Results

Manipulation Checks

Participants answered two manipulation check questions immediately after giving their negligence and damage assessments, indicating whether or not the audit partner determined to communicate the increased subscription revenue risk to the audit committee and whether or not the audit team utilized a forensic specialist. Participants answered the two manipulation checks with 75.2% and 80.8% accuracy, respectively. To verify further that the independent manipulations affected the manipulation check responses, I numerically coded the manipulations and manipulation check responses and performed separate ANOVA analyses for each manipulation. In these analyses, I use the manipulations as the independent measures and the manipulation check question responses as the dependent measures. Doing this, I confirm significant differences in means ($p < 0.01$) between the manipulation conditions, relative to the check question responses. Given these differences between the independent manipulation groups, my

[8] The factor loadings for general expectations include the following statements: I am not likely to criticize someone for giving up too easily; It doesn't matter when someone close to me does not do their absolute best; I do not have very high expectations for those around me; I do not expect a lot from my friends; It does not matter to me when a close friend does not try their hardest; and I seldom expect others to excel at whatever they do. Factors loadings are 0.52, 0.53, 0.61, 0.54, 0.73, and 0.71, respectively.

main analysis includes all participants, following recommendations from Kotzian, Stöber, Hoos, & Weissenberger (2015).[9]

Tests of Hypotheses

The descriptive statistics of participants' auditor negligence assessments are shown in Table 1, Panel A and Table 2, Panel A. I formally test H1 and H4 using both a logistic regression model for the binary verdict dependent measure and an ANCOVA for the continuous probability of negligence measure.[10] I formally test H2 using only the ANCOVA analysis, due to overfitting of the logistic regression model. Table 1, Panel B shows the logistic regression results and Table 2, Panel B shows the ANCOVA results. I test H3a and H3b using a bootstrapping analysis macro, developed for SPSS by Hayes (2013), which enables the simultaneous testing of moderation and mediation relationships. Table 4 shows the results of the mediated moderation test.

[9] When I limit my analysis to those participants that passed both manipulation checks, the number of participants available for analysis reduces to 117. Using only participants correctly answering the manipulation questions, results for all hypotheses are consistent with results obtained using all participant responses.

[10] Though I collect damage assessments from those participants who give a "negligent" verdict, there is significant unevenness in the number of participants in each cell assessing damages. In addition, the number of participants in some cells results in insufficient data to perform analysis. Therefore, I am unable to perform meaningful tests of differences in damage assessments.

TABLE 1

Jurors' Negligence Verdicts

Panel A: % of Jurors Finding Audit Firm Negligent Proportion [Percentage]

	Workpaper Documentation	Audit Committee Disclosure	Total
No Specialist	24/34 70.6%	10/32 31.3%	34/66 51.5%
Specialist	15/30 50.0%	10/29 34.5%	25/59 42.4%
Total	39/64 60.9%	20/61 32.8%	59/125 47.2%

Panel B: Binary Logistic Regression
Dependent Variable: Verdict

Independent Variable	df	χ^2	p-value (two-tailed)	
General Expectations	1	3.060	0.080	
Disclosure	1	11.160	<0.01	H1
Specialist	1	0.867	0.352	H4
Disclosure x Specialist	1	0.914	0.339	
Constant	1	11.106	<0.01	

Disclosure and *Specialist* are manipulated between low and high experimental conditions.
General Expectations are a continuous factor measuring general perfectionism standards of others.
Verdict is the jurors' yes/no decision of auditor negligence after reading the experimental materials.

In H1, I predicted that the auditor's choice to disclose/not to disclose increased fraud risk to the audit committee would serve to reduce jurors' negligence assessments. As predicted, I found a significant main effect such that disclosure of the fraud risk reduced negligence assessments for both the binary verdict ($p < 0.01$, two-tailed) and continuous negligence probability dependent variables ($p = 0.011$, two-tailed). My results are consistent with Brasel et al. (2016), Brown et al. (2016), and Kachelmeier et al.

(2017), which find that increased disclosure of risks (albeit to the public) reduces auditor liability.

TABLE 2

Jurors' Negligence Probability

Panel A: Descriptive Statistics (Marginal Mean, (Standard Deviation), and [n])

	Workpaper Documentation	Audit Committee Disclosure	
No Specialist	5.82 (2.443) [34]	4.44 (2.501) [32]	5.15 (2.549) [66]
Specialist	4.77 (2.837) [30]	4.38 (2.781) [29]	4.58 (2.762) [59]
	5.33 (2.667) [64]	4.41 (2.584) [61]	

Panel B: Analysis of Covariance[11]

Dependent Variable: Probability of Negligence

Source	Type III Sum of Squares	df	Mean Square	F	p-value (two-tailed)	
General Expectations	29.972	1	29.972	5.180	.025	
Disclosure	38.234	1	38.234	6.608	.011	H1
Specialist	3.271	1	3.271	.565	.454	H4
Disclosure x Specialist	.514	1	.514	.089	.766	
Disclosure x Cynicism x Understanding	21.424	1	21.424	3.703	.057	H2
Error	659.569	114	5.786			

a. R Squared = .246 (Adjusted R Squared = .180)

[11] Though the analysis utilized a full factorial ANCOVA model (excluding interactions of specialist with attitudes), only those conditions of interest are reported herein in the interest of brevity.

Disclosure and *Specialist* are manipulated between low and high experimental conditions. *Cynicism* and *Understanding* are binary high/low median splits of factors measuring pre-existing cynicism toward auditors and understanding of the audit profession limitations, respectively. *General Expectations* are a continuous factor measuring general perfectionism standards of others. *Probability of negligence* is the jurors' probability assessment of whether the audit firm was negligence on a scale from 0=Not at all probable to 10=Extremely probable.

In H2, I predicted that jurors' pre-existing attitudes toward the auditor would moderate (interact with) the auditor's disclosure choice in jurors' determination of negligence. Due to the number of independent variables, use of the factorial logistic regression model required to use the binary negligence verdict as a dependent variable results in overfitting of the model. Therefore, I use the ANCOVA model and the probability of negligence dependent variable in Table 2, Panel B to test this hypothesis. As noted in Table 2, Panel B, H2 is confirmed for the interaction of auditor disclosure to the audit committee and jurors' pre-existing attitudes ($p = 0.057$). In particular, examination of the means in Table 3 indicates that the jurors' greatest evaluation of auditor negligence occurred when the auditor did not disclose the risk to the audit committee and jurors indicated high cynicism of the auditor and low understanding of audit limitations (probability of negligence = 6.846). In this such case, when jurors' attitudes were most unfavorable to the auditor (i.e. high cynicism and low understanding of limitations, disclosure did not significantly reduce negligence assessments (difference in means = -0.907; $p = 0.319$). Conversely, the jurors' lowest evaluation of auditor negligence occurred when the auditor did disclose the risk to the audit committee and jurors had low cynicism of the auditor and high understanding of audit limitations (probability of negligence = 2.387). In this such case, when jurors' attitudes were most favorable to the auditor (i.e., low cynicism and high understanding of limitations), lack of

disclosure did significantly increase negligence assessments (difference in means = 3.193; $p < 0.01$).

TABLE 3

Jurors' Negligence Probability: Disclosure and Attitudes

Panel A: Descriptive Statistics (Marginal Mean, (Standard Error), and [n])

	Workpaper Documentation	Audit Committee Disclosure	Difference in Means
Low Cynicism/Low Understanding	4.135 (0.733) [11]	3.677 (0.525) [21]	0.458 p = .614
Low Cynicism/High Understanding	5.580 (0.556) [20]	2.387 (0.766) [10]	3.193 p < .01
High Cynicism/Low Understanding	6.846 (0.631) [16]	5.939 (0.632) [15]	0.907 p = .319
High Cynicism/High Understanding	4.873 (0.568) [18]	4.741 (0.624) [15]	0.132 p = .877

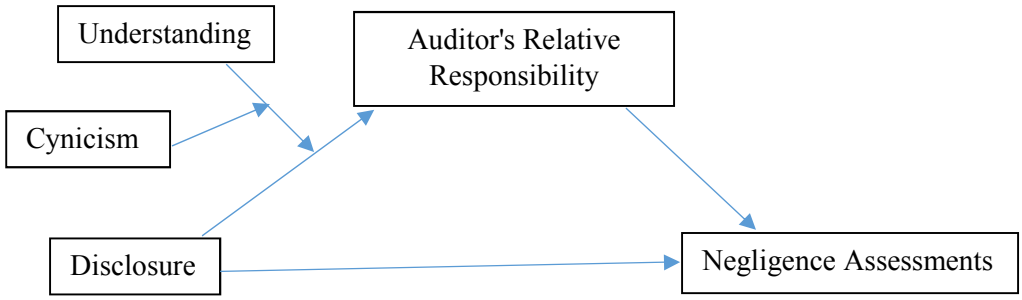
The results of the interaction between auditor disclosure of risks to the audit committee and two pre-existing attitudes toward the auditor further illuminate the effect of disclosure on the probability of the auditor being found negligent. Specifically, though the significant main effect found in testing H1 appears to indicate that auditors can reduce their liability by disclosing risks to the audit committee, the significant interaction found in testing H2 indicates that the choice to disclose is most effective in the sample of jurors who have more favorable beliefs about auditors prior to participating in the civil trial.

In H3a and H3b, I predicted that jurors' evaluations of the auditor's relative responsibility for the undiscovered fraud would mediate the joint effect of auditor disclosure and pre-existing attitudes on negligence assessments. To test these hypotheses, I utilize the *PROCESS* macro for SPSS developed by Andrew Hayes (2013). The macro utilizes bootstrapping to derive a confidence interval for indirect effects of the proposed mediator. The use of bootstrapping helps to avoid problems associated with both smaller sample sizes and non-normality in the sampled population (Preacher & Hayes, 2004). I use Model 11, a mediated moderation model conceptually depicted in Figure 1, with my calculated measure of net responsibility utilized as the identified mediator.

FIGURE 1

Mediated Moderation - *PROCESS* Model 11

From Hayes (2013)



As demonstrated in Table 4, Panel 2, the result of the *PROCESS* bootstrap analysis shows that increased diffusion of responsibility away from the auditor toward the audit committee (i.e., lower relative responsibility) does decrease evaluations of negligence ($\beta = .4370$, $p < 0.01$), consistent with expectations. Further, the mediated moderation predicted in H3a and H3b is also confirmed through the *PROCESS* analysis.

In Panel D, the conditional indirect effect of the disclosure x cynicism x understanding interaction is shown to be significant (i.e. the 95% confidence interval does not include zero) only when cynicism is low and understanding of audit limitations is high. The coefficient of this indirect effect is negative (β = -1.4071; 95% CI [-2.4735, -.5569]), demonstrating that jurors are influenced by their initial attitudes when determining auditor negligence.

TABLE 4

Moderated Mediation- *PROCESS* macro with Disclosure

Test of H3a and H3b

Panel A: Effect of Disclosure choice on Relative Responsibility[12]

	β	SE	t	p-value
Constant	-12.0766	3.4919	-3.4585	<.001
General Expectations	.3312	.2340	1.4151	.1597
Disclosure	14.0871	4.6645	3.0201	.0031
Disclosure x Cynicism x Understanding	5.0364	1.8441	2.7311	.0073

Panel B: Moderated Mediation Model, DV = Probability of Negligence

	β	SE	Z	p-value
Constant	5.5354	.2949	18.7707	<.001
General Expectations	.4837	.2148	2.2517	.0261
Relative Responsibility	.4370	.0812	5.3790	<.001
Disclosure	-.9634	.4287	-2.2471	.0264

Panel C: Direct effect of Disclosure choice on Probability of Negligence

Effect	SE	Z	p-value	LLCI	ULCI
-.9634	.4287	-2.2471	.0264	-1.8121	-.1146

[12] Though the analysis utilized a full factorial model, only those conditions of interest are reported herein in the interest of brevity.

Panel D: Conditional Indirect effect (through Relative Responsibility) at Attitude Levels

Cynicism	Understanding	Effect	Boot SE	Boot LLCI	Boot ULCI
Low	Low	.8019	.4970	-.1076	1.7772
Low	High	-1.4071	.4935	-2.4735	-.5569
High	Low	-.1424	.2705	-.6863	.3854
High	High	-.1504	.3413	-.7995	.5413

Finally, in H4, I predicted a decreasing main effect when the auditor chose to improve audit quality by utilizing a forensic specialist. As identified in Tables 1 and 2, my results found that, while both the rate of negligence verdicts and the assessed probability of negligence are lower when the auditor uses a fraud specialist, these results are not significant ($p = 0.352$ and $p = 0.255$, respectively).

As noted above, I did not predict an interaction between auditor disclosure and use of a forensic specialist, given the highly speculative nature of the prediction. In Panel B of Tables 1 and 2, I observe that the interaction of these two choices is insignificant for both binary verdict and continuous probability negligence measures ($p = 0.339$ and $p = 0.766$, respectively). Based on the descriptive statistics observed in Panel A of Tables 1 and 2, I compare the means of the no specialist/no disclosure condition with the other three conditions. In untabulated analysis, I find that the assessed probability of negligence in the no specialist/no disclosure condition is significantly greater than the probability of negligence in both the no specialist/disclosure and specialist/disclosure conditions ($p = 0.027$ and $p = 0.013$, respectively). The probability of negligence assessment in the no specialist/no disclosure condition does not significantly differ from that of the specialist/no disclosure condition ($p = 0.214$). Results are similar using the binary verdict response as the dependent measure; all results consistently indicate that there is no

interactive effect of auditor risk disclosure to the audit committee and use of a specialist on negligence assessments.

V. Supplemental Discussion of the Culpable Control Model

Recently, some accounting researchers have utilized the Culpable Control Model developed in psychology (Alicke, 2000; Lagnado & Channon, 2008; Alicke, Rose, & Bloom, 2011) in attempts to integrate the blame sharing phenomenon across settings (Backof, 2015; Gimbar et al., 2016; Backof et al., 2017). The Culpable Control Model (CCM) focuses primarily on the relationship between perceived control and blame attribution (Alicke, 2000; Lagnado & Channon, 2008), and secondarily on antecedents to perceptions of control: perceptions of causation, perceptions of intentionality, and perceptions of foreseeability. Causation relates to whether a person or entity objectively caused the outcome, and additionally depends on the sufficiency of the actor's contribution in causing the negative outcome (Lagnado & Channon, 2008). Intentionality relates to whether a person's actions are perceived as purposeful or accidental (Alicke, 2000; Lagnado & Channon, 2008). Foreseeability is related to perceptions of the degree to which a person should have anticipated the outcome of their action (Alicke, 2000; Lagnado & Channon, 2008). Conceptually these three contributing factors are distinct, but they are structurally interdependent "in the sense that assessing one aspect of control may affect estimations of other components" (Alicke, 2000). One recent study has observed them to load on a single factor (Backof, 2015). It should also be noted that in legal proceedings, arguing intent (scienter) is very difficult and thus absent from many legal models of drivers of legal liability (Wegman, 2007; Park, 2017).

Though the CCM was not developed as a model for determining legal liability, the components contributing to perceptions of control may nonetheless still contribute to non-directed juror deliberative analyses. As such, I considered and examined the model's applicability in my setting, as have other accounting researchers. At the most foundational level, accounting research has demonstrated that jurors' perceptions of auditor control do affect liability assessments (e.g., Backof, 2015; Gimbar et al., 2016; Backof et al., 2017). These specific studies also tested whether their research manipulations altered participants' perceptions of intent, causation, and foreseeability. No accounting studies investigating auditor liability to date, however, have tested a full CCM structural equation model (SEM) considering all research manipulations and the entire structure of the CCM simultaneously; or, if they have, their results have not been reported. Without an SEM test, it remains an empirical question as to which settings the CCM model applies, with some appropriate skepticism as to whether it fits as well in the legal liability setting as it does blame attribution experiments in psychology.

To examine the applicability of the CCM in my experimental setting, I performed ANCOVA analyses to determine if auditor disclosure, jurors' pre-existing cynicism, and jurors' pre-existing understanding of audit limitations affect jurors' perceptions of causation, intent, and foreseeability. These three dependent variables were derived from supplemental questions asked of experimental participants after they provided negligence assessments. These questions measured causation (from 0 to 10, "to what extent were the auditors (audit committee) responsible for discovering the fraud?"), intent (from 0 to 10,

"to what extent did the auditors intend to discover the fraud?"), and foreseeability (from 0 to 10, "how foreseeable do you believe the instance of fraud was to the auditors?").[13]

Given the theoretical framework of my experiment, I focused my primary analyses on the diffusion of responsibility aspect of causation. Therefore, the results of testing the relevance of this CCM link to my setting are provided in my test of H3a and H3b above. I find no significant effect of disclosure, either as a main effect or interactively with the two measures of pre-existing attitudes ($p = 0.290$ and $p = 0.430$, respectively) on perceptions of intent. Similarly, I find no significant effect of disclosure, either as a main effect or interactively with the two measures of pre-existing attitudes ($p = 0.180$ and $p = 0.329$, respectively) on perceptions of foreseeability. I only find effects, as reported above, with respect to causation/responsibility. Thus, my findings do not support the CCM. My findings are not entirely unique. Gimbar et al. (2017) findings also failed to support the intentionality dimension of the CCM, as did research by Backof (2015).The results of testing the CCM in my experimental setting may offer additional insight into the use of this framework in a legal liability setting and may provide additional considerations to future researchers in this area.

VI. Conclusion

In this dissertation, I report the results of an experiment examining the main and interactive effects of auditor risk disclosures to an audit committee and jurors' pre-

[13] Consistent with the analysis performed by Backof (2015), principal components analysis loads these measures on a single factor (eigenvalue = 1.410), which accounting researchers leveraging the CCM framework have utilized as a measure of auditor control. Of note, though these three components loaded on to a single factor with eigenvalue greater than 1, a second factor (eigenvalue = 0.983) did manifest. Examination of the factor loadings for each of the three components indicated that, though foreseeability and causation have high factor loadings (0.825 and 0.819, respectively), intent has a much smaller factor loading (-0.241). In addition, the components of foreseeability and causation are significantly correlated ($r = .393$, $p<0.01$), while intent is not correlated with either foreseeability or causation.

existing attitudes toward the auditor. I also examine whether auditors reduce negligence assessments when they choose to engage a fraud specialist.

My research contributes to both practice and research. Practically, audit teams must decide which risks to discuss with the audit committee (if any). Alerting audit committee members in a timely fashion to certain risks is shown in my experiment to enable some jurors to diffuse responsibility away from the auditor and toward the audit committee in determining auditor negligence. My findings, however, also report that this outcome is conditional on pre-existing juror attitudes. That is, auditors only achieve a reduction in negligence assessments among jurors with more favorable pre-existing attitudes toward the auditor.

Additionally, auditors are faced with cost /benefit tradeoffs on each audit engagement; the decision to use a specialist, while more costly, might be expected to influence perceived audit quality. My study suggests that there may be limited or no courtroom benefit to the additional cost of using a specialist if an audit failure eventuates. Potential perceptions of increased audit quality do not appear to add protection against negligence assessments when the auditor first discloses the risk to the audit committee. Future research could measure perceptions of the significance of the risk between having a specialist and not having a specialist.

Future research can continue to offer valuable insights to audit firms related to their disclosure choices. This study is limited by the use of participants as jurors without engaging in a rigorous *voir dire* process, as would be expected in a natural courtroom setting. Therefore, participants may not be representative of individuals who survive a sophisticated jury selection process. This study was also limited to the discussion of only

one significant risk area, though auditors consider numerous risks in the course of an audit and must exercise professional judgment in narrowing down the number of identified risks for communication with the audit committee. Future research can examine negligence assessments in the presence of multiple disclosed risks. Additionally, I utilize a low-complexity financial statement account and a corresponding specialist that does not contribute a large amount of expertise in the face of uncertainty. Regulators and accounting researchers are more closely examining the difficulties surrounding audits of complex estimates (PCAOB, 2014; Griffith, Hammersley, & Kadous, 2015; Rasso, 2015; Joe et al., 2015; Brown et al., 2016). Future research could provide evidence about jurors' evaluations of auditor negligence for disclosures and specialists associated with financial statement accounts inherently containing greater ambiguity and complexity.

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APPENDIX A

PARTICIPANTS' ATTITUDES TOWARD AUDITORS

Attitude[a]	Mean	Median	Mode
The big auditing firms make plenty of money in the good times, so they should also share in the stockholders' losses in the bad times![b]	5.54	5	5
The big corporations and their big auditors (CPAs) work hand-in-glove and only tell the public what they want to tell them.[b]	5.12	5	5
External auditors cannot look at every client transaction. They must rely on samples and tests of relationships in conducting the audit.[c]	6.74	7	9
The financial statements contained in the annual report to stockholders are primarily the responsibility of corporate management, and not of the external auditor.[c]	6.48	7	8

a. Respondents indicated their level of agreement with each statement on a scale of 0 = Strongly Disagree to 10 = Strongly Agree

b. These two statements loaded on a single factor, called “Cynicism”. Factor responses were split at the median value and classified as “high” and “low” for analysis.

c. These two statements loaded on a single factor, called “Understanding”. Factor responses were split at the median valueand classified as “high” and “low” for analysis.